UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2018

OR

c **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
FOR THE TRANSITION PERIOD FROM TO

Commission File Number	Registrant; State of Incorporation; Address and Telephone Number	I.R.S. Employer Identification No.
001-32871	**COMCAST CORPORATION** PENNSYLVANIA One Comcast Center Philadelphia, PA 19103-2838 (215) 286-1700	27-0000798
001-36438	**NBCUniversal Media, LLC** DELAWARE 30 Rockefeller Plaza New York, NY 10112-0015 (212) 664-4444	14-1682529

SECURITIES REGISTERED PURSUANT TO SECTION 12(b) OF THE ACT:

Comcast Corporation –

Title of Each Class	Name of Each Exchange on Which Registered
Class A Common Stock, $0.01 par value	NASDAQ Global Select Market
2.0% Exchangeable Subordinated Debentures due 2029	New York Stock Exchange
5.50% Notes due 2029	New York Stock Exchange
9.455% Guaranteed Notes due 2022	New York Stock Exchange

NBCUniversal Media, LLC – NONE

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:

Comcast Corporation – NONE
NBCUniversal Media, LLC – NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Comcast Corporation	Yes x	No c
NBCUniversal Media, LLC	Yes x	No c

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Comcast Corporation	Yes c	No x
NBCUniversal Media, LLC	Yes c	No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Comcast Corporation	Yes x	No c
NBCUniversal Media, LLC	Yes x	No c

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Comcast Corporation	Yes x	No c
NBCUniversal Media, LLC	Yes x	No c

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendments to this Form 10-K.

Comcast Corporation	x
NBCUniversal Media, LLC	N/A

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Comcast Corporation	Large accelerated filer	x	Accelerated filer	c	Non-accelerated filer	c	Smaller reporting company	c	Emerging growth company	c
NBCUniversal Media, LLC	Large accelerated filer	c	Accelerated filer	c	Non-accelerated filer	x	Smaller reporting company	c	Emerging growth company	c

If an emerging growth company, indicate by check mark whether the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Comcast Corporation	c
NBCUniversal Media, LLC	c

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Comcast Corporation	Yes c	No x
NBCUniversal Media, LLC	Yes c	No x

As of June 30, 2018, the aggregate market value of the Comcast Corporation common stock held by non-affiliates of the registrant was $149.068 billion.
Indicate the number of shares outstanding of each of the registrant's classes of stock, as of the latest practicable date:
As of December 31, 2018, there were 4,516,518,147 shares of Comcast Corporation Class A common stock and 9,444,375 shares of Class B common stock outstanding.
Not applicable for NBCUniversal Media, LLC.
NBCUniversal Media, LLC meets the conditions set forth in General Instruction I(1)(a), (b) and (d) of Form 10-K and is therefore filing this form with the reduced disclosure format.

DOCUMENTS INCORPORATED BY REFERENCE

Comcast Corporation – Part III – The registrant's definitive Proxy Statement for its annual meeting of shareholders presently scheduled to be held in June 2019.
NBCUniversal Media, LLC – NONE

Comcast Corporation
2018 Annual Report on Form 10-K

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Explanatory Note

This Annual Report on Form 10-K is a combined report being filed separately by Comcast Corporation ("Comcast") and NBCUniversal Media, LLC ("NBCUniversal"). Comcast owns all of the common equity interests in NBCUniversal, and NBCUniversal meets the conditions set forth in General Instruction I(1)(a), (b) and (d) of Form 10-K and is therefore filing its information within this Form 10-K with the reduced disclosure format. Each of Comcast and NBCUniversal is filing on its own behalf the information contained in this report that relates to itself, and neither company makes any representation as to information relating to the other company. Where information or an explanation is provided that is substantially the same for each company, such information or explanation has been combined in this report. Where information or an explanation is not substantially the same for each company, separate information and explanation has been provided. In addition, separate consolidated financial statements for each company, along with notes to the consolidated financial statements, are included in this report.

Unless indicated otherwise, throughout this Annual Report on Form 10-K, we refer to Comcast and its consolidated subsidiaries, including NBCUniversal and its consolidated subsidiaries as “we,” “us” and “our;” Comcast Cable Communications, LLC and its consolidated subsidiaries as “Comcast Cable;” Comcast Holdings Corporation as “Comcast Holdings;” NBCUniversal, LLC as “NBCUniversal Holdings;” and Sky Limited (formerly Sky plc) and its consolidated subsidiaries as “Sky”.

This Annual Report on Form 10-K is for the year ended December 31, 2018. This Annual Report on Form 10-K modifies and supersedes documents filed before it.

The Securities and Exchange Commission (“SEC”) allows us to “incorporate by reference” information that we file with it, which means that we can disclose important information to you by referring you directly to those documents. Information incorporated by reference is considered to be part of this Annual Report on Form 10-K. In addition, information that we file with the SEC in the future will automatically update and supersede information contained in this Annual Report on Form 10-K.

Our registered trademarks include Comcast, NBCUniversal and the Comcast and NBCUniversal logos. This Annual Report on Form 10-K also contains other trademarks, service marks and trade names owned by us, as well as those owned by others.

Part I

Item 1: Business

We are a global media and technology company with three primary businesses: Comcast Cable, NBCUniversal and Sky. We were incorporated under the laws of Pennsylvania in December 2001. Through our predecessors, we have developed, managed and operated cable systems since 1963. Through transactions in 2011 and 2013, we acquired NBCUniversal, and in the fourth quarter of 2018, we acquired Sky.

We present our operations for (1) Comcast Cable in one reportable business segment, referred to as Cable Communications; (2) NBCUniversal in four reportable business segments: Cable Networks, Broadcast Television, Filmed Entertainment and Theme Parks (collectively, the "NBCUniversal segments"); and (3) Sky in one reportable business segment.

- **Cable Communications:** Consists of the operations of Comcast Cable, which is one of the nation's largest providers of high-speed internet, video, voice, and security and automation services ("cable services") to residential customers under the Xfinity brand; we also provide these and other services to business customers and sell advertising.
- **Cable Networks:** Consists primarily of our national cable networks that provide a variety of entertainment, news and information, and sports content, our regional sports and news networks, our international cable networks, our cable television studio production operations, and various digital properties.
- **Broadcast Television:** Consists primarily of the NBC and Telemundo broadcast networks, our NBC and Telemundo owned local broadcast television stations, the NBC Universo national cable network, our broadcast television studio production operations, and various digital properties.
- **Filmed Entertainment:** Consists primarily of the operations of Universal Pictures, which produces, acquires, markets and distributes filmed entertainment worldwide; our films are also produced under the Illumination, DreamWorks Animation and Focus Features names.
- **Theme Parks:** Consists primarily of our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. In addition, along with a consortium of Chinese state-owned companies, we are developing a Universal theme park and resort in Beijing, China.
- **Sky:** Consists of the operations of Sky, one of Europe's leading entertainment companies, which primarily includes a direct-to-consumer business, providing video, high-speed internet, voice and wireless phone services, and a content business, operating entertainment networks, the Sky News broadcast network and Sky Sports networks.

Our other business interests consist primarily of a wireless phone service, which we launched in mid-2017 under the Xfinity Mobile brand, and Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

For financial and other information about our reportable business segments, refer to Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 2 to each of Comcast's and NBCUniversal's consolidated financial statements included in this Annual Report on Form 10-K.

Available Information and Websites

Comcast's phone number is (215) 286-1700, and its principal executive offices are located at One Comcast Center, Philadelphia, PA 19103-2838. NBCUniversal's phone number is (212) 664-4444, and its principal executive offices are located at 30 Rockefeller Plaza, New York, NY 10112-0015. Comcast and NBCUniversal's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to such reports filed with or furnished to the SEC under Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are available free of charge on the SEC's website at www.sec.gov and on Comcast's website at www.comcastcorporation.com as soon as reasonably practicable after such reports are electronically filed with the SEC. The information posted on our websites is not incorporated into our SEC filings.

Description of Our Businesses

Cable Communications Segment

Cable Services

Cable Communications offers high-speed internet, video, voice, and security and automation services in the United States individually and as bundled services at a discounted rate over its cable distribution system to residential and business customers. Cable Communications generates revenue primarily from residential and business customers that subscribe to its cable services, which are marketed individually and as bundled services, and from the sale of advertising. Cable Communications' bundled service offerings aim to meet the needs of the various segments of its customer base, ranging from high-speed internet services packaged with video or streaming services that include a limited number of channels, to a quad product bundle, consisting of our high-speed internet, video, voice, and security and automation services. We also offer a wireless phone service as a component of our bundled services, which is reported in Corporate and Other. Subscription rates and related charges vary according to the services and features customers receive and the types of equipment they use, and customers are typically billed in advance on a monthly basis. A portion of Cable Communications' residential customers are subject to minimum-term contracts for their cable services, which are typically 2 years in length. Substantially all business customers are initially under minimum-term contracts, which typically range from 2 to 5 years. Customers with minimum-term contracts may only discontinue service in accordance with the terms of their contracts.

As of December 31, 2018, our cable systems had 30.3 million total customer relationships, including 28.0 million residential customer relationships and 2.3 million business customer relationships, and passed more than 57 million homes and businesses. Homes and businesses are considered passed if we can connect them to our distribution system without further extending the transmission lines and are estimated based on the best available information. As of December 31, 2018, total customer relationships penetration of homes and businesses passed was 53%.

The Areas We Serve

The map below highlights Cable Communications' cable distribution footprint as of December 31, 2018 and the designated market areas ("DMAs") where there are 250,000 or more customer relationships. The locations that are bolded represent the DMAs in which it operates that were also included in the top 25 U.S. television DMAs as of December 31, 2018.

High-Speed Internet Services

Cable Communications offers high-speed internet services with downstream speeds that range up to 1 gigabit per second ("Gbps") and fiber-based speeds that range up to 2 Gbps. These services include access to an online portal and mobile apps, which provide email, an address book, calendars and online security features.

Throughout its footprint, Cable Communications is deploying wireless gateways that combine a customer's wireless router, cable modem and voice adapter to improve the performance of multiple IP-enabled devices used at the same time within the home, provide faster internet speeds and create an in-home Wi-Fi network. Customers may personalize and manage their Wi-Fi network remotely with our xFi branded whole-home application and online portal, which includes viewing and changing their Wi-Fi password, identifying which devices are connected to their in-home network, setting parental controls and schedules, as well as other features, with our wireless gateways. Cable Communications continues to expand its network of residential, outdoor and business Wi-Fi hotspots.

As of December 31, 2018, 25.1 million residential customers subscribed to our high-speed internet services.

Video Services

Cable Communications offers a broad variety of video services that provide access to hundreds of channels depending on the customer's level of service. Levels of service typically range from a limited basic service with access to between 20 and 40 channels to a full service with access to more than 300 channels. Video services generally include programming provided by national broadcast networks, local broadcast stations, and national and regional cable networks, as well as government and public access programming. Packages that include extensive amounts of foreign-language programming and other specialty tiers of programming with sports, family and international themes are also offered. Cable Communications tailors its video services for particular programming preferences, demographics and geographic areas according to applicable local and federal regulatory requirements.

Video customers may also subscribe to premium networks, such as HBO, Showtime, Starz and Cinemax, that generally provide, without commercial interruption, movies, original programming, live and taped sporting events and concerts, and other features.

Video services generally include access to a video on demand service ("On Demand") and an interactive, on-screen program guide. Our On Demand service provides video customers with over 160,000 programming choices over the course of a month, including approximately 70,000 in high definition. A substantial portion of On Demand content is available at no additional charge. Other content, primarily movies and special-events programming, such as sporting events and concerts, can be rented or in some cases purchased to own digitally.

Cable Communications' HD service provides customers with high-resolution picture quality, improved audio quality and a wide-screen format through an HD set-top box, and includes a broad selection of HD programming choices, including major broadcast networks, national and regional cable networks, and premium networks. DVR services allow video customers to record and store programs and play them at whatever time is convenient, and they also provide the ability to pause and rewind live television. HD and DVR, individually or together, are referred to as advanced services.

Cable Communications' Internet Protocol ("IP") and cloud-enabled video platform, referred to as the X1 platform, provides customers with integrated search functionality, including the use of a voice-activated remote control, personalized recommendations and access to, and integration of content from, certain third-party internet applications, such as Netflix, Amazon Prime Video and YouTube. Cloud DVR technology is offered in substantially all of our markets. Cloud DVR technology allows video customers to record programming via their set-top box using cloud-based servers and view those recordings on mobile devices via mobile apps.

Certain video customers have access to streaming services through mobile apps and an online portal that allow them to view certain live programming and On Demand content and to browse program listings. Depending on the customer's level of service, these services may require an additional monthly fee. Cable Communications also launched a streaming video cable service throughout its footprint that allows high-speed internet customers to purchase its video cable service and stream live programming to a computer, tablet, smartphone or other device for a monthly fee.

As of December 31, 2018, 21.0 million residential customers subscribed to our video services.

Voice Services

Cable Communications offers voice services using interconnected Voice over Internet Protocol ("VoIP") technology. The voice services provide either unlimited or usage-based local and domestic long-distance calling and include options for international calling plans, voicemail, voicemail transcriptions, text messaging, caller ID and call waiting. For customers with high-speed internet services, voice services also include the ability to access and manage voicemail, text messaging and other account features through an online portal or mobile apps.

As of December 31, 2018, 10.2 million residential customers subscribed to our voice services.

Business Services

Cable Communications offers a variety of products and services to businesses. The high-speed internet services for business services customers provide downstream speeds that range up to 1 Gbps and fiber-based speeds that range up to 10 Gbps. Small business services offerings primarily include high-speed internet services, as well as voice and video services, similar to those provided to residential customers. It also offers video monitoring solutions and cloud-based services that provide file sharing, online backup and web conferencing, among other features. Cable Communications also offers Ethernet network services that connect multiple locations and provide higher downstream and upstream speed options to medium-sized customers and larger enterprises, as well as advanced voice services, along with video solutions that serve hotels and other large venues. In addition, cellular backhaul services are provided to mobile network operators to help them manage their network bandwidth.

Recently, Cable Communications has expanded its enterprise service offerings to include a software-defined networking product for medium-sized and enterprise customers. Enterprise customers may also receive support services related to Wi-Fi networks, router management, network security, business continuity risks and other services. Enterprise service offerings are primarily provided to Fortune 1000 companies and other large enterprises with multiple locations both within and outside of Cable Communications' cable distribution footprint, where we have agreements with other companies to use their networks to provide coverage outside of its service areas.

Advertising

As part of Cable Communications' distribution agreements with cable networks, it generally receives an allocation of scheduled advertising time that is sold through its advertising business to local, regional and national advertisers. In most cases, the available advertising units are sold by our sales force. In some cases, it works with representation firms as an extension of its sales force to sell a portion of the advertising units allocated to it. Cable Communications also represents the advertising sales efforts of other multichannel video providers in some markets. In addition, it generates revenue from the sale of advertising on its digital platforms. It also provides technology, tools, data-driven services and marketplace solutions to customers in the media industry, which allow advertisers to more effectively engage with their target audiences.

Other

Cable Communications offers security and automation services that provide home monitoring services and the ability to manage other functions within the home, such as lighting and room temperature, through our online portal, mobile apps or the X1 platform. As of December 31, 2018, 1.3 million residential customers subscribed to our security and automation services.

Technology

Cable Communications' cable distribution system uses a hybrid fiber-optic and coaxial cable network that we believe is sufficiently flexible and scalable to support its future technology requirements. This network provides the two-way transmissions that are essential to providing high-speed internet services, interactive video services such as On Demand, voice services, and security and automation services.

Cable Communications continues to focus on technology initiatives to design, develop and deploy next-generation media and content delivery platforms, such as the X1 platform and related cloud DVR technology, that use IP technology and its own cloud network servers to deliver video and advanced search capabilities, including through a voice-activated remote control, and that allow access to certain third-party internet applications.

Cable Communications continues to deploy wireless gateways to improve the performance of multiple IP-enabled devices used at the same time within the home, provide faster internet speeds and create an in-home Wi-Fi network. In addition, it continues to expand its network of residential, outdoor and business Wi-Fi hotspots.

Cable Communications is deploying 1 Gbps high-speed internet services that leverage DOCSIS 3.1 technology across its footprint and will continue to expand the capacity of its DOCSIS 3.1 infrastructure, including the implementation of DOCSIS FDX that will enable multi-gigabit services to be launched through its existing network.

Sources of Supply

For high-speed internet services, Cable Communications licenses software products, such as email and security software, and content, such as news feeds for its online portal, from a variety of suppliers. Under its contracts with these suppliers, it generally pays on a fixed-fee basis, on a per subscriber basis in the case of software product licenses or on a video advertising revenue share basis in the case of content licenses.

To offer video services, Cable Communications licenses a substantial portion of programming from cable networks and broadcast networks, as well as from local broadcast television stations. It attempts to secure long-term programming distribution agreements with these programming providers. The fees associated with these programming distribution agreements are generally based on the number of customers who are able to watch the programming and the platforms on which the content is provided. It seeks to include in distribution agreements the rights to offer such programming through multiple delivery platforms, such as through its On Demand service, online portal, mobile apps and streaming services.

For voice services, software products such as voicemail and text messaging are licensed from a variety of suppliers under multiyear contracts. The fees paid are generally based on the consumption of the related services.

Cable Communications purchases from a limited number of suppliers a significant number of set-top boxes and certain other customer premise equipment, network equipment and services to provide cable services to residential and business customers.

Cable Communications uses two primary vendors to provide customer billing for cable services to residential and business customers.

Customer and Technical Services

Cable Communications' customer service call centers provide 24/7 call-answering capability, telemarketing and other services. Its technical services group performs various tasks, including installations, plant maintenance and upgrades to its cable distribution system.

Sales and Marketing

Cable Communications offers services directly to residential and business customers through its customer service call centers, retail stores, customer service centers, websites, door-to-door selling, telemarketing, and third-party outlets, as well as through advertising via direct mail, television and the internet.

NBCUniversal Segments

NBCUniversal is one of the world's leading media and entertainment companies that develops, produces and distributes entertainment, news and information, sports, and other content for global audiences, and owns and operates theme parks worldwide.

Cable Networks

NBCUniversal's Cable Networks segment consists of a diversified portfolio of national cable networks that provide a variety of entertainment, news and information, and sports content, regional sports and news networks, international cable networks, and cable television studio production operations. It also owns various digital properties, which include brand-aligned websites.

The table below presents a summary of NBCUniversal's national cable networks and their advertising reach to U.S. households.

Cable Network	Approximate U.S. Households as of December 31, 2018 (in millions)(a)	Description of Programming
USA Network	**90**	General entertainment
E!	**88**	Entertainment and pop culture
Syfy	**87**	Imagination-based entertainment
MSNBC	**86**	News and information
CNBC	**85**	Business and financial news
Bravo	**87**	Entertainment, culture and arts
NBC Sports Network	**83**	Sports
Oxygen	**72**	Crime, mystery and suspense for women
Golf Channel	**71**	Golf competition and golf entertainment
Universal Kids	**56**	Children's entertainment
The Olympic Channel	**33**	Olympic sports events and Olympic-themed original content
CNBC World	**31**	Global financial reviews

(a) Household data is based on The Nielsen Company's December 2018 Household Universal Estimate report, which is derived from information provided by SNL Kagan. The Nielsen report includes estimates based on subscribers to both traditional and certain virtual multichannel video providers. The Nielsen report is not based on information provided by us and is included solely to permit comparisons between our cable networks and those operated by our peers.

The regional sports and news networks together serve more than 27 million households across the United States, including in markets such as Baltimore/Washington, Boston, Chicago, Philadelphia, Portland, Sacramento and San Francisco.

NBCUniversal's Cable Networks segment generates revenue primarily from the distribution and licensing of its programming and from the sale of advertising on its networks and digital properties. It markets and distributes cable network programming in the United States and internationally to multichannel video providers, including both traditional providers of linear programming and virtual providers who provide streaming services for linear programming. It also markets and distributes cable network programming to subscription video on demand services, such as those offered by Amazon, Hulu and Netflix. These distributors may provide its content on television, including via video on demand services, online and through mobile apps.

NBCUniversal's cable networks produce their own programs or acquire the rights to programming from third parties, including sports programming rights that are discussed below under the heading "Broadcast Television." NBCUniversal's cable television studio production operations identify, develop and produce original content for its own cable networks and third parties. It licenses its owned content, including programming from its cable network production operations, to cable and broadcast networks and subscription video on demand services. It also sells its owned content on standard-definition DVDs and Blu-ray discs (together, "DVDs") and through digital distribution services such as iTunes.

Broadcast Television

NBCUniversal's Broadcast Television segment operates the NBC and Telemundo broadcast networks, which together serve viewers and advertisers in all 50 states. The Broadcast Television segment also includes owned NBC and Telemundo local broadcast television stations, the NBC Universo national cable network, broadcast television studio production operations, and various digital properties, which primarily include brand-aligned websites. The Broadcast Television segment generates revenue primarily from the sale of advertising on its networks and digital properties, from the licensing of its programming, and from the fees received under retransmission consent agreements and associated fees received from NBC-affiliated and Telemundo-affiliated local broadcast television stations.

NBC Network

The NBC network distributes entertainment, news and sports programming that reaches viewers in virtually all U.S. television households through more than 200 affiliated stations across the United States, including NBCUniversal's 11 owned NBC-affiliated local broadcast television stations. The NBC network's programming library consists of rights of varying nature to more than 100,000 episodes of popular television content, including current and classic titles, unscripted programming, sports, news, long-form and short-form programming, and locally produced programming from around the world.

The NBC network produces its own programs or acquires the rights to programming from third parties. NBCUniversal has various contractual commitments for the licensing of rights to multiyear programming, primarily sports programming. The most significant sports programming commitments include the U.S. broadcast rights for the summer and winter Olympic Games through 2032 and

agreements with the NFL to produce and broadcast a specified number of regular season and playoff games, including *Sunday Night Football* through the 2022-23 season and two Super Bowl games, the first of which was in 2018. It also has U.S. broadcast rights to a specified number of NHL games through the 2020-21 season, English Premier League soccer through the 2021-22 season, certain NASCAR events through 2024 and certain PGA TOUR and other golf events through 2030. NBCUniversal's sports programming agreements also include the rights to distribute content on its national cable networks, including the NBC Sports Network and Golf Channel, on its regional sports networks, and online, including through its mobile apps.

The broadcast television studio production operations develop and produce original content, including scripted and unscripted programming series and talk shows. This original content is licensed to broadcast networks, cable networks and local broadcast television stations owned by NBCUniversal and third parties, as well as to subscription video on demand services, and it is sold on DVDs and through digital distribution services both in the United States and internationally. The broadcast television studio production operations also produce first-run syndicated shows for local markets that are broadcast on local broadcast television stations in the United States on a market-by-market basis. They currently distribute some of their television programs after their initial broadcast, as well as older television programs from their library, to local broadcast television stations and cable networks in the off-network syndication market.

NBC Local Broadcast Television Stations

As of December 31, 2018, NBCUniversal owned and operated 11 NBC-affiliated local broadcast television stations, including stations in 8 of the top 10 general markets, that collectively reached approximately 32 million U.S. television households and represent approximately 29% of U.S. television households. In addition to broadcasting the NBC network's national programming, its local broadcast television stations produce news, sports, public affairs and other programming that addresses local needs and acquire syndicated programming from other sources.

Telemundo

Telemundo is a leading Hispanic media company that produces, acquires and distributes Spanish-language content in the United States and internationally. Telemundo's operations include the Telemundo network, its 28 owned local broadcast television stations and the NBC Universo national cable network.

The Telemundo network is a leading Spanish-language broadcast network featuring original telenovelas, movies, news, specials and sporting events. Telemundo develops original programming primarily through its production studio and also acquires the rights to programming from third parties. It holds the Spanish-language U.S. broadcast rights to FIFA World Cup soccer through 2026.

Telemundo Local Broadcast Television Stations

As of December 31, 2018, Telemundo owned 28 local broadcast television stations affiliated with the Telemundo network, including stations in 18 of the top 20 U.S. Hispanic markets, which collectively reached approximately 70% of U.S. Hispanic television households as of December 31, 2018. Telemundo also owns an independent television station in Puerto Rico.

Filmed Entertainment

NBCUniversal's Filmed Entertainment segment primarily produces, acquires, markets and distributes filmed entertainment worldwide. It also generates revenue from Fandango, a movie ticketing and entertainment business, from the sale of consumer products, from the production and licensing of live stage plays, and from the distribution of filmed entertainment produced by third parties.

Films are produced both by the Filmed Entertainment segment alone and jointly with other studios or production companies, as well as with other entities. NBCUniversal's films are produced primarily under the Universal Pictures, Illumination, DreamWorks Animation and Focus Features names. Films are marketed and distributed worldwide primarily through NBCUniversal's own marketing and distribution operations. The Filmed Entertainment segment also acquires distribution rights to films produced by others, which may be limited to particular geographic regions, specific forms of media or certain periods of time. The Filmed Entertainment segment's content includes theatrical films, direct-to-video movies and its film library, which is comprised of more than 5,000 movies in a variety of genres.

The Filmed Entertainment segment has entered into, and may continue to enter into, film cofinancing arrangements with third parties, including both studio and nonstudio entities, to jointly finance or distribute certain of our film productions. These arrangements can take various forms, but in most cases involve the grant of an economic interest in a film to an investor. Investors generally assume the full risks and rewards of ownership proportionate to their ownership in the film.

The majority of the Filmed Entertainment segment's produced and acquired films are initially distributed for exhibition in movie theaters. After their release in movie theaters, it sells and licenses films through various methods. It distributes its films globally by selling them on DVDs to retail stores, rental kiosks and subscription by mail services and by selling them through digital distribution services and video on demand services provided by multichannel video providers, including the Cable Communications

segment. It also licenses its films, including selections from its film library, to cable, broadcast and premium networks, to subscription video on demand services, and to video on demand and pay-per-view services. The number of films licensed through subscription video on demand services is increasing as consumers continue to seek additional ways to view the Filmed Entertainment segment's content.

Theme Parks

NBCUniversal's Theme Parks segment consists primarily of Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Universal Orlando includes two theme parks, Universal Studios Florida and Universal's Islands of Adventure, our water park, Volcano Bay, as well as Universal CityWalk Orlando, a dining, retail and entertainment complex. Universal Orlando also features on-site themed hotels in which we own a noncontrolling interest. The Universal theme park in Hollywood, California consists primarily of Universal Studios Hollywood, as well as Universal CityWalk Hollywood. The Universal theme park in Osaka, Japan consists primarily of Universal Studios Japan. NBCUniversal is also developing a Universal theme park in Beijing, China along with a consortium of Chinese state-owned companies. In addition, the Theme Parks segment licenses the right to use the Universal Studios brand name and other intellectual property, and also provides other services, to third parties that own and operate the Universal Studios Singapore theme park on Sentosa Island, Singapore.

The Theme Parks segment generates revenue primarily from ticket sales and guest spending at Universal theme parks. The Theme Parks segment licenses the right to use a substantial amount of intellectual property from third parties for its themed elements in rides, attractions and merchandising.

Sky Segment

Sky is one of Europe's leading entertainment companies operating in seven territories, including four of the five largest pay television markets in Western Europe: the United Kingdom ("U.K."), Italy, Germany and Spain. The majority of Sky's revenue is derived from its direct-to-consumer video business, which has 23.6 million retail customers, and primarily involves the distribution of a wide array of video channels to customers. Sky owns a diverse portfolio of pay television channels that offer entertainment, news, sports and movies, which are included in Sky's subscription video services and are also licensed through various distribution partnerships to third-party video providers that reach an additional 4 million households. Sky also provides high-speed internet, voice and wireless phone services in select countries.

Video Services

Sky's video services include a direct-to-home ("DTH") video service that is delivered through a combination of both satellite transmission and broadband connection and is marketed under the Sky brand in the U.K., Ireland, Italy, Germany and Austria. It also offers an over the top ("OTT") video service providing video content over the internet which is marketed as a distinct brand in these countries, as well as in Spain and Switzerland.

Sky's DTH video service is sold directly to customers in packages that include a diverse selection of Sky's owned entertainment and sports channels, channels owned by third parties and all local free-to-air public broadcasting channels. In addition to live-linear content, Sky's platform also provides access to On Demand and prior season libraries. Sky's video service offerings are tailored by country, with separate packages offered in each market. Basic packages include up to approximately 170 pay television channels in the U.K. and Ireland, approximately 84 channels in Italy, and approximately 44 channels in Germany and Austria. Specialty tiers for children's, sports, movie and HD programming are available for additional fees. Sky's video services also have pay-per-view programming for certain live sporting events and allow customers, as well as those without a subscription, to buy or rent programming for a fee.

Sky's DTH video service is primarily distributed to its customers through a set-top box video platform, including through Sky Q, which is Sky's next-generation video platform. Sky's customers have the ability to record several shows at once, to download content and recordings to watch offline on compatible devices, and for Sky Q households, to pause in one room and carry on in another. Sky Q customers are offered personalized content recommendations and the use of a voice activated remote control, as well as integrated access to content from other providers such as Netflix, Spotify, Vevo and YouTube.

Sky's OTT video service offers packages for purchase ranging from daily, weekly or monthly access for entertainment, sports, movies and children's programming. The entertainment package includes certain of Sky's owned premium channels and up to 500 TV On Demand programming series. The sports package provides access to Sky's owned sports channels and the movie package includes access to over 1,000 films. The children's package includes thousands of hours of child-friendly on demand programming.

Television Channels

Sky's owned entertainment channels include Sky One, Sky Arts and Sky Atlantic in the U.K. and Ireland; Sky Atlantic, Sky Uno and Sky Arte in Italy; and Sky Atlantic and Sky 1 in Germany and Austria. It also owns premium sports channels under the Sky Sports brand and premium movie channels under the Sky Cinema brand, including family and children's movie channels. Sky also broadcasts several Sky branded free-to-air channels, including Sky News in the U.K. and Ireland, Sky TG24 in Italy and Sky Sport News in Germany.

Sky acquires the rights to programming for its channels from third parties, in some cases on an exclusive basis, and produces its own programming. Sky has various contractual commitments for the licensing of rights to multiyear programming, primarily sports programming and exclusive entertainment programming. Its most significant sports programming commitments include the U.K. broadcast rights for English Premier League soccer games through 2022; German broadcast rights to Bundesliga and Union des Associations Européennes de Football ("UEFA") through 2021; and Italian broadcast rights to UEFA and Lega Nazionale Professionisti Serie A through 2021. Its most significant entertainment programming commitments include exclusive rights with HBO, Showtime, Warner Bros. and NBCUniversal. Sky is also increasingly creating and investing in original dramas that are broadcast simultaneously across all territories and sold to other markets through its syndication business.

In addition to including its channels as part of its video services, Sky derives revenue from the distribution of some of its channels on third-party platforms through both wholesale arrangements and arrangements with partners who distribute Sky's owned channels as agents to their respective customer bases.

Other Services

Sky offers high-speed internet and voice services in the U.K. and Ireland. Sky offers fiber-to-the-home ("FTTH"), fiber-to-the-cabinet and standard copper digital subscriber line ("DSL") broadband services, with average download speeds of 63 Mbps in the U.K. and 1 Gbps in Ireland. In the U.K., Sky uses a combination of its own core fiber network and wholesaling arrangements over third-party telecommunication providers' networks and also rents the "last mile" network from a third-party network operator. In Italy, Sky offers a bundled offering of its video service with high-speed internet and phone services through co-marketing agreements with several Italian broadband and telecommunications providers, and plans to launch FTTH services using Open Fiber to provide high-speed internet access and voice services later in 2019.

Sky offers wireless phone services to customers in the U.K. as a virtual mobile operator using its own core fiber network while renting Telefónica's radio access.

Other than those that subscribe to Sky's OTT video service, customers generally are required to subscribe for an initial contractual term of at least 1 year and may only discontinue service in accordance with the terms of their contracts. Subscription rates and related charges vary according to the services and features customers receive and the types of equipment they use, and customers are typically billed in advance on a monthly basis. Sky's video, high-speed internet, voice and wireless phone services may be sold individually or in bundles.

Advertising

Sky sells advertising and sponsorships across its owned channels and where it represents the sales efforts of third-party channels. Sky also sells targeted advertising in the U.K., Ireland and Italy, and generates revenue from online and mobile advertising and advertising across its On Demand services.

Technology and Sources of Supply

For a majority of customers, Sky's DTH video platform is delivered via one-way digital satellite transmission for the distribution of linear television channels, augmented by a set-top box with local DVR storage and high speed two-way broadband connectivity to provide access to a broad range of On Demand and other services. The Sky platform also incorporates Wi-Fi connectivity for in-home distribution enabling wires-free multi-room consumption, and Sky has also developed a range of back-end and client software applications that provide customers with access to its content across multiple third-party devices and On Demand in and out of the home. Sky's OTT video service is delivered via the internet.

Sky relies on various telecommunications providers to deliver its video, high-speed internet, voice and wireless phone services to its customers. For example, Sky relies on satellites leased from third parties to provide most of its video services. In addition, pursuant to the current regulatory regime in the U.K. and Italy, Sky is able to access networks owned by third-party telecommunication providers for a fee to provide its high-speed internet and phone services in most cases, on regulated terms.

To offer video services, in addition to its owned channels, Sky licenses programming from third-party programming providers that operate television channels. Sky attempts to secure long-term programming distribution agreements with these programming providers. The fees associated with these programming distribution agreements are generally based on the number of customers who are able to watch the programming and the platforms on which Sky provides the content. Sky seeks to include in its distribution

agreements the rights to offer such programming through multiple delivery platforms, such as through its On Demand services, online portal, mobile apps and streaming services.

Customer and Technical Services

Sky's customer service operations are increasingly a digital first offering. Its technical services group performs various tasks, including installations, plant maintenance and upgrades to its distribution system.

Sales and Marketing

Sky offers direct-to-consumer services to retail customers through customer service call centers, customer service centers, websites, telemarketing, a limited number of retail outlets, as well as through advertising via direct mail, television and the internet.

Corporate and Other

We are also pursuing other business development initiatives, such as a wireless phone service, which we launched in the second quarter of 2017, using our virtual network operator rights to provide the service over Verizon's wireless network and our existing network of in-home and outdoor Wi-Fi hotspots. The wireless phone service is offered only as part of Comcast Cable's bundled service offerings to residential customers that subscribe to its high-speed internet service within its cable distribution footprint and may in the future also be offered to our small business customers on similar terms. The wireless phone service has success-based working capital requirements, primarily associated with the procurement of handsets, which customers are able to pay for upfront or finance interest-free over 24 months, and other equipment.

Our other business interests consist primarily of the operations of Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

Competition

All of our businesses operate in intensely competitive, consumer-driven and rapidly changing environments and compete with a growing number of companies that provide a broad range of communications products and services, and entertainment, news and information products and services to consumers. Technological changes are further intensifying and complicating the competitive landscape and challenging existing business models. In particular, consumers are increasingly turning to online sources for viewing and purchasing content, which has and likely will continue to reduce the number of our video customers and subscribers to our cable networks even as it makes our high-speed internet services more valuable to consumers. In addition, the increasing number of entertainment choices available has intensified audience fragmentation, which has and likely will continue to adversely affect the audience ratings of our cable networks and broadcast television programming.

Cable Communications Segment

High-Speed Internet Services

Cable Communications competes with a number of companies offering internet services, including:

- wireline phone companies and other providers of wireline internet service
- wireless phone companies and other providers of wireless internet service
- municipal broadband networks and power companies
- satellite broadband providers

Phone companies such as AT&T, CenturyLink, Frontier and Verizon have built and are continuing to build fiber-based network infrastructure farther into their networks, which allows them to provide data transmission speeds that exceed those that can be provided with traditional DSL technology, and are offering these higher-speed services in many of our service areas. Certain companies that offer DSL service have increased data transmission speeds, lowered prices or created bundled services to compete with our high-speed internet services.

Certain other companies have launched FTTH networks that provide high-speed internet services in a limited number of areas in which we operate, and certain municipalities in our service areas are also building fiber-based networks.

Various wireless companies are offering internet services using a variety of network types, including 3G and 4G, and recently 5G, wireless broadband services and Wi-Fi networks. These networks work with devices such as smartphones, laptops, tablets and mobile wireless routers, as well as wireless data cards. A growing number of commercial venues, such as retail malls, restaurants

and airports, also offer Wi-Fi service. Numerous local governments are also considering or actively pursuing publicly subsidized Wi-Fi and other internet access networks. The availability of these wireless offerings could negatively impact the demand for our high-speed internet services.

Video Services

Cable Communications competes with a number of different sources in the United States that provide news, sports, information and entertainment programming to consumers, including:

- DBS providers, including AT&T's DIRECTV and DISH Network, that transmit satellite signals to substantially all U.S. households to provide video programming and other information similar to our video services
- phone companies, including AT&T and Verizon, that have built and continue to build fiber-based networks that provide cable services similar to ours, which overlap a substantial portion of our service areas, and that in some cases offer bundled offerings that include wireless phone services
- online video distributors including:
    - virtual multichannel video providers who offer streaming services for linear programming that generally involve smaller packages of programming networks at prices lower than our traditional video service package offerings
    - subscription video on demand services, such as those offered by Amazon, Hulu and Netflix, that offer online services and devices that enable internet streaming and downloading of movies, television shows and other video programming
    - premium, cable and broadcast networks that provide content directly to consumers
- other providers that build and operate wireline communications systems in the same communities that we serve, including those operating as franchised cable operators
- satellite master antenna television systems that offer to their subscribers both improved reception of local broadcast television stations and much of the programming offered by our cable systems and generally serve MDUs, office complexes and residential developments
- other companies, such as local broadcast television stations, that provide multiple channels of free over-the-air programming, as well as video rental services and home entertainment and gaming products

Many of these competitors also have significant financial resources and have further intensified competition through mergers and acquisitions.

Voice Services

Cable Communications' voice services compete with wireline and wireless phone companies, including incumbent local exchange carriers ("ILECs") and competitive local exchange carriers ("CLECs"), and other internet-based and VoIP service providers. Certain phone companies, such as the ILECs AT&T and Verizon, have longstanding customer relationships, and extensive existing facilities and network rights-of-way. A few CLECs also have existing local networks and significant financial resources. In addition, we are increasingly competing with other phone service providers as customers replace traditional wireline phone services with wireless and internet-based phone services, such as Skype.

Business Services

Cable Communications' business services primarily compete with a variety of phone companies, including ILECs and CLECs and WAN Managed Service Providers. These companies either operate their own network infrastructure or use all or part of another carrier's network. It also competes with satellite operators who offer video services to businesses and VoIP companies that target businesses of all sizes. Our video monitoring services compete with companies that provide video surveillance services that use both traditional and cloud-based/digital solutions.

NBCUniversal Segments

Cable Networks and Broadcast Television

NBCUniversal's cable networks, broadcast networks and owned local broadcast television stations compete for viewers' attention and audience share with all forms of programming provided to viewers, including cable, broadcast and premium networks; subscription video on demand services; local broadcast television stations; home entertainment products; pay-per-view and video on demand services; online activities, such as social networking and viewing user-generated content; gaming products; and other forms of entertainment, news and information.

NBCUniversal's cable networks, broadcast networks and owned local broadcast television stations compete for the acquisition of programming and for on-air and creative talent with other cable and broadcast networks, local television stations, and subscription video on demand services. The market for programming is very competitive, particularly for sports programming, where the cost for such programming is significant.

NBCUniversal's cable networks compete with other cable networks and programming providers for carriage of their programming by traditional and virtual multichannel video providers and subscription video on demand services. Its broadcast networks compete with the other broadcast networks in markets across the United States to secure affiliations with independently owned television stations, which are necessary to ensure the effective distribution of broadcast network programming to a nationwide audience.

In addition, NBCUniversal's cable television and broadcast television studio production operations compete with other production companies and creators of content for the acquisition of story properties, for creative, performing and technical personnel, and for distribution of, and consumer interest in, their content.

Filmed Entertainment

The filmed entertainment business competes for audiences for its films and other entertainment content with other major studios and, to a lesser extent, with independent film producers, as well as with alternative forms of entertainment. The competitive position of the filmed entertainment business primarily depends on the number of films produced, their distribution and marketing success, and consumer response. The filmed entertainment business also competes to obtain creative, performing and technical talent, including writers, actors, directors and producers, as well as scripts for films. The filmed entertainment business also competes with the other major studios and other producers of entertainment content for the exhibition of its films in theaters and the distribution of its films on premium networks and on subscription video on demand services.

Theme Parks

NBCUniversal's theme parks business competes with other multi-park entertainment companies. It also competes with other providers of entertainment, lodging, tourism and recreational activities. To help maintain the competitiveness of our theme parks, we have invested and continue to invest in existing and new theme park attractions, hotels and infrastructure.

Sky Segment

Sky faces competition from a broad range of companies engaged in media, entertainment and communications services in Europe, including cable operators, providers of both paid-for and free-to-air programming, service providers making use of new fiber optic networks, other satellite television providers, digital terrestrial television providers, telecommunications providers, other internet service providers, content aggregators, home entertainment products companies, companies developing new technologies and devices, and other suppliers and providers of news, information, sports and entertainment that deliver streaming and downloading online video services. Sky's competitive position may be negatively impacted by an increase in the capacity of, or developments in, the means of delivery which its competitors use to provide their services. Sky's competitors also include organizations that are publicly funded, in whole or in part, which fulfill a public service broadcasting mandate.

Sky competes for the acquisition of programming content with a wide range of providers, particularly for sports programming, where the cost for such programming is significant.

Advertising

The cable communications business, cable networks, broadcast networks, owned local broadcast television stations and Sky compete for the sale of advertising with other television networks and stations, as well as with all other advertising platforms, such as digital, radio and print media. The willingness of advertisers to purchase advertising from us may be adversely affected by lower audience ratings at NBCUniversal's cable networks, broadcast networks and owned local broadcast television stations and Sky's owned channels. Declines in audience ratings also can be caused by increased competition for the leisure time of viewers and by

audience fragmentation resulting from the increasing number of entertainment choices available, including content from subscription video on demand services and other digital sources. In addition, advertising revenue is adversely affected by the growing use of technologies, such as DVRs and video on demand services, which give consumers greater flexibility to watch programming on a time-delayed or on-demand basis or to fast-forward or skip advertisements within programming.

Seasonality and Cyclicality

Each of our businesses is subject to seasonal and cyclical variations. In our Cable Communications segment, our results are impacted by the seasonal nature of residential customers receiving our cable services in college and vacation markets. This generally results in fewer net customer relationship additions in the second quarter of each year.

Revenue in our Cable Communications, Cable Networks and Broadcast Television segments is subject to cyclical advertising patterns and changes in viewership levels. Advertising revenue in the U.S. is generally higher in the second and fourth quarters of each year, due in part to increases in consumer advertising in the spring and in the period leading up to and including the holiday season. Advertising revenue in the U.S. is also cyclical, with a benefit in even-numbered years due to advertising related to candidates running for political office and issue-oriented advertising. Revenue in our Cable Networks and Broadcast Television segments fluctuates depending on the timing of when our programming is aired, which typically results in higher advertising revenue in the second and fourth quarters of each year.

Our revenue and operating costs and expenses (comprised of total costs and expenses, excluding depreciation and amortization expense and other operating gains) are cyclical as a result of our periodic broadcasts of major sporting events, such as the Olympic Games, which affect our Cable Networks and Broadcast Television segments, and the Super Bowl, which affects our Broadcast Television segment. In particular, our advertising revenue increases due to increased demand for advertising time and our distribution revenue increases in the period of these broadcasts. Our operating costs and expenses also increase as a result of our production costs for these broadcasts and the amortization of the related rights fees.

Revenue in our Filmed Entertainment segment fluctuates due to the timing, nature and number of films released in movie theaters, on DVDs, and through various other distribution platforms. Release dates are determined by several factors, including competition and the timing of vacation and holiday periods. As a result, revenue tends to be seasonal, with increases experienced each year during the summer months and around the holiday season. Content licensing revenue in our Cable Networks, Broadcast Television and Filmed Entertainment segments also fluctuates due to the timing of when our content is made available to licensees.

Revenue in our Theme Parks segment fluctuates with changes in theme park attendance that result from the seasonal nature of vacation travel and weather variations, local entertainment offerings and the opening of new attractions, as well as with changes in currency exchange rates. Our theme parks generally experience peak attendance during the spring holiday period, the summer months when schools are closed and the holiday season.

Our Sky segment results are impacted by the seasonal nature of residential customers receiving our DTH and OTT video services, including the start of the new soccer seasons and the Christmas holiday. This generally results in greater net customer relationship additions and higher subscriber acquisition costs in the fourth quarter of each year due to higher marketing expenses. Growth in Sky's wireless phone business is also similarly impacted by seasonal trends, as well as by the length of consumer cycles to upgrade their handsets.

Exclusive tier one sports rights, such as domestic and UEFA Champions League soccer, Formula 1, and English cricket, play a key role within Sky's wider content strategy. In Europe broadcasting rights for tier one sports are usually tendered through a competitive auction process, with the winning bidder or bidders acquiring rights over a three to five-year period. This creates some level of cyclicality for Sky, although the staggered timing of tier one sports rights auctions usually gives Sky time to react to any material changes in the competitive dynamics of the prevailing market.

The results of Sky's advertising business are subject to cyclical advertising patterns and changes in viewership levels. This includes seasonally higher audience levels in winter months and increased competition during major sporting events where public service broadcasters lease the rights, such as the Olympic Games and the FIFA World Cup™. The results for Sky's content business are also subject to fluctuations as a result of changes in timing, nature and quantity of original programming distributed to other markets.

Legislation and Regulation

The Communications Act of 1934, as amended (the "Communications Act"), and FCC regulations and policies affect significant aspects of our businesses that operate in the United States. These businesses are also subject to other regulation by federal, state and local authorities and to agreements we enter into with local cable franchising authorities. In addition, our international businesses are subject to the laws and the jurisdiction of the foreign regulatory authorities where they operate.

Legislators and regulators at all levels of government frequently consider changing, and sometimes do change, existing statutes, rules or regulations, or interpretations of existing statutes, rules or regulations, or prescribe new ones, any of which may significantly affect our businesses. These legislators and regulators have been active in considering rulemakings and legislation, and they, along with some state attorneys general and foreign governmental authorities, have also been active in conducting inquiries and reviews, regarding our services. Any future legislative, judicial, regulatory or administrative actions may increase our costs or impose additional restrictions on our businesses, some of which may be significant. The U.S. Congress may consider proposals to address communications issues, including whether it should rewrite the entire Communications Act to account for changes in the communications marketplace, whether it should enact new, permanent open internet requirements, and whether it should fund new broadband infrastructure. We are unable to predict the outcome or effects of any of these potential actions or any other legislative or regulatory proposals on our businesses.

The following paragraphs summarize material existing and potential future legal and regulatory requirements affecting our businesses, although reference should be made to the Communications Act, FCC regulations and other legislation and regulations for further information.

Cable Communications Segment

High-Speed Internet Services

We provide high-speed internet services to our customers. Many of these services are subject to a number of regulatory obligations described below. As an internet service provider ("ISP"), we are also subject to a requirement to implement certain network capabilities to assist law enforcement in conducting surveillance of persons suspected of criminal activity. From time to time, the FCC considers imposing new regulatory obligations on ISPs. New broadband regulations, if adopted, may have adverse effects on our businesses.

Open Internet Regulations

In 2015, the FCC reclassified broadband internet access service as a "telecommunications service" subject to new open internet regulations and certain common carrier regulations under Title II of the Communications Act. These included, among other things, prohibiting ISPs from blocking access to lawful content; impairing or degrading lawful internet traffic on the basis of content, applications or services ("throttling"); prioritizing certain internet traffic in exchange for consideration ("paid prioritization"); and generally prohibiting ISPs from unreasonably interfering with or unreasonably disadvantaging consumers' ability to access and use the lawful internet content, applications, services or devices of their choosing or edge providers' ability to make lawful content, applications, services or devices available to consumers ("general conduct").

In 2017, the FCC reversed its prior classification of broadband internet access service as a Title II telecommunication service and classified it as an "information service" under Title I. In addition, it eliminated its prior no-blocking, no-throttling, no paid-prioritization and general conduct rules, stating that jurisdiction to regulate ISP conduct would rest at the FTC. In addition, it revised the transparency rule to require ISPs to disclose any blocking and throttling practices, and any paid or affiliated prioritization practices associated with their broadband offerings. We have disclosed that we do not block, throttle, or engage in affiliated or paid prioritization, and have committed not to block, throttle, or discriminate against lawful content. The FTC has authority to enforce these public commitments, and the FCC has authority to enforce compliance with its transparency rule. The Order also preempted any state and local laws and regulations that conflict with the FCC's deregulatory policies.

The FCC's 2017 decision is currently on appeal in federal court. In addition, several states have passed or introduced legislation, or have adopted executive orders, that impose Open Internet requirements in a variety of ways. Certain of these state initiatives have been challenged in court, and additional challenges may be filed. Such attempts by the states to regulate have the potential to create a patchwork of differing and/or conflicting state regulations. Congress may also consider legislation addressing these regulations and the regulatory framework for broadband internet access services. We cannot predict whether or how the rules might be changed, the impact of potential new legislation or the outcome of any litigation.

Broadband Deployment/Infrastructure Initiatives

In 2018, the FCC adopted rules aimed at removing barriers to the deployment of broadband infrastructure, including the preemption of certain state and local laws or regulations that may unreasonably impede the deployment of wireless broadband networks. These orders are being challenged in federal court, and we cannot predict the outcome of the litigation. If the orders are upheld, some of these reforms may create regulatory imbalances that favor wireless services over wireline broadband services like our own. The FCC is considering similar reforms for wireline networks, including our networks, as part of its ongoing efforts to promote broadband deployment. We cannot predict whether or how any FCC rules might be changed, how state or local laws or regulations may be impacted, or how such changes may affect our business. In addition, as part of any federal infrastructure program, governmental subsidies or funding of additional internet broadband networks may be encouraged. We cannot predict how successful those efforts will be and how they might affect our business.

Municipally Owned Broadband Networks

A number of local municipalities operate municipally owned broadband networks and there may be further efforts by local governments to expand or create government-owned networks. Certain states have enacted laws that restrict or prohibit local municipalities from operating municipally owned broadband networks, and there may be efforts in other state legislatures to restrict the development of government-owned networks, although some may choose to ease or facilitate such networks. We cannot predict how successful those efforts will be and how they might affect our business.

Video Services

Program Carriage

FCC regulations prohibit us from unreasonably restraining the ability of an unaffiliated video programming network to compete fairly by discriminating against the network on the basis of its non-affiliation in the selection, terms or conditions for its carriage. In addition, Cable operators and other multichannel video programming distributors (“MVPDs”) in the United States are prohibited from requiring as a condition of carriage a financial interest in, or exclusive distribution rights for, a video programming network. We have been involved in program carriage disputes at the FCC and may be subject to new complaints in the future.

Must-Carry/Retransmission Consent

Cable operators are required to carry, without compensation, programming transmitted by most local commercial and noncommercial broadcast television stations. As an alternative to this “must-carry” requirement, local broadcast television stations may choose to negotiate with the cable operator for “retransmission consent,” under which the station gives up its must-carry rights and instead seeks to negotiate a carriage agreement with the cable operator, which frequently will involve payments to the station. We currently pay certain local broadcast television stations in exchange for their required consent for the retransmission of the stations’ broadcast programming to our video services customers and expect to continue to be subject to demands for increased payments and other concessions from local broadcast television stations. In 2017, the FCC adopted an order relaxing the broadcast media ownership rules and is considering additional revisions to the rules, which could lead to further broadcast television station consolidation. The FCC also adopted an order authorizing voluntary implementation of a new broadcast technical standard that permits broadcasters to seek carriage of signals using the new standard through retransmission consent. Together, these actions may impact retransmission consent negotiations and the fees we pay broadcasters. For information on must-carry and retransmission consent issues relating to our broadcast television business, see “NBCUniversal Segments - Broadcast Television” below and refer to the “Must-Carry/Retransmission Consent” discussion within that section.

Pricing and Packaging

We are subject to rate regulation of charges for certain of our video service, equipment and installation in certain communities in Massachusetts, but all of the other areas we serve have unregulated prices. In addition to the FCC’s rate regulation rules, certain state entities monitor and may challenge the marketing and advertising of our services. For example, in 2016, the Washington State Attorney General filed a lawsuit, currently being litigated in state court, alleging that our service protection plan, an optional plan that protects customers from incurring charges for service visits to diagnose and repair installed in-home wiring for residential cable services, violates state consumer protection laws. We cannot predict the outcome of this litigation or whether other states may file similar suits.

Pole Attachments

The FCC regulates the rates, terms and conditions that most pole-owning utility companies charge cable operators and telecommunications carriers for allowing attachments to their poles. States are permitted to preempt FCC jurisdiction and regulate the rates, terms and conditions of attachments themselves, and many states in which we operate have done so and have generally followed the FCC’s pole attachment rate standards, which set rates for telecommunications service pole attachments to levels at or near the rates for cable service attachments. The rates, terms and conditions of some municipal and cooperative pole owners, however, are not regulated by the FCC or states.

Franchising

Cable operators generally operate their cable systems under nonexclusive franchises granted by local or state franchising authorities. While the terms and conditions of franchises vary materially from jurisdiction to jurisdiction, franchises typically last for a fixed term, obligate the franchisee to pay franchise fees and meet service quality, customer service and other requirements, and are terminable if the franchisee fails to comply with material provisions. Franchising authorities also may establish reasonable requirements for public, educational and governmental access programming. The Communications Act also contains provisions governing the franchising process, including renewal procedures designed to protect incumbent franchisees against arbitrary denials of renewal, including unreasonable renewal conditions. We believe that our franchise renewal prospects are generally favorable but cannot guarantee the future renewal of any individual franchise. In response to a remand by the U.S. Court of Appeals for the Sixth Circuit, the FCC has proposed to clarify that in-kind contribution requirements in a cable franchise are generally subject to the statutory five percent cap on franchise fees and reaffirm that state and local authorities are barred from imposing duplicative franchise and/or fee requirements on the operation of cable systems to provide non-cable services. We cannot predict the outcome of this proceeding or its impact on our businesses.

Voice Services

We provide voice services using VoIP technology. The FCC has adopted a number of regulations for providers of nontraditional voice services such as ours, including regulations relating to privacy of customer proprietary network information, local number portability duties and benefits, disability access, E911, law enforcement assistance, outage reporting, Universal Service Fund contribution obligations, rural call completion, back-up power, service discontinuance and certain regulatory filing requirements. The FCC has not yet ruled on whether VoIP services such as ours should be classified as an “information service” or a “telecommunications service” under the Communications Act. The classification determination is important because telecommunications services are regulated more extensively than information services. Recently, the U.S. Court of Appeals for the Eighth Circuit held that VoIP is an information service and preempted state regulation of VoIP, but that ruling is limited to the seven states located in the Eighth Circuit. State regulatory commissions and legislatures in other jurisdictions may continue to consider imposing regulatory requirements on our voice services as long as the regulatory classification of VoIP remains unsettled at the federal level.

Voice Interconnection

Because the FCC has not determined the appropriate classification of our voice services, providers of VoIP services typically either secure CLEC authorization or obtain interconnection to traditional wireline phone company networks by contracting with an existing CLEC, which has the right, as a telecommunications carrier, to request and obtain interconnection with the traditional wireline phone companies. We have arranged for such interconnection rights through affiliated CLECs. If a regulatory or judicial authority were to deny our ability to interconnect through one of our affiliated CLECs, our ability to provide voice services and compete in the area in question would be negatively impacted. The FCC regulates the arrangements by which telecommunications carriers compensate one another for exchanged traffic and has affirmed the right of CLECs to collect intercarrier compensation when providing interconnection for VoIP providers.

Wireless Service

In 2017, we began offering a wireless voice and data service. We offer this service using our mobile virtual network operator (“MVNO”) rights to provide the service over Verizon’s wireless network. MVNOs are subject to many of the same FCC regulations as facilities-based wireless carriers (e.g., E911 services, local number portability, etc.), as well as certain state or local regulations. The FCC or other regulatory authorities may adopt new or different regulations for MVNOs and/or mobile broadband providers in the future, or impose new taxes or fees, which could adversely affect our wireless phone service offering or our business generally.

Universal Service

The federal Universal Service program generally requires us and other phone service providers to pay a fee based on revenue from interstate and international services into a fund used to subsidize the provision of voice services and broadband-capable voice networks in high-cost areas, the provision of voice services to low-income consumers, and the provision of internet, voice and telecommunications services to schools, libraries and certain health care providers. Some states also have analogous programs that support service in high-cost areas or to low-income consumers.

The FCC has shifted its focus away from supporting traditional telephone service, and toward subsidizing deployment of broadband-capable networks and broadband facilities. This shift could assist some of our competitors. For example, the FCC has revised the high-cost federal Universal Service mechanism to support broadband-capable networks and substantially has revised the program that provides Universal Service support for services to schools and libraries to begin phasing out support for voice services, with greater support directed to broadband services and the deployment of Wi-Fi networks. Similarly, the FCC has expanded its Lifeline subsidy program for low-income consumers to include broadband services in addition to voice services. The FCC or Congress

may revisit these subsidy programs and how they are funded. We cannot predict whether or how these programs will be changed in the future.

NBCUniversal Segments

Cable Networks

Program Access

The Communications Act and FCC regulations generally prevent cable networks affiliated with cable operators from favoring cable operators over competing MVPDs. The FCC and Congress have considered proposals that would require companies that own multiple cable networks to make each of their networks available individually when negotiating distribution agreements with MVPDs and potentially with online video distributors. We currently offer our cable networks both on a bundled basis and, when requested, individually. We have been involved in program access disputes at the FCC and may be subject to new complaints in the future.

Children's Programming

Under federal regulations, the amount of commercial content that may be shown on cable networks, broadcast networks and broadcast television stations during programming originally produced and broadcast primarily for an audience of children under 13 years of age is limited, and certain television station programming must serve the educational and informational needs of children under 17 years of age. In 2018, the FCC initiated a proceeding to review its regulations regarding children's programming, and we cannot predict the outcome of this proceeding.

Broadcast Television

Licensing

Local broadcast television stations may be operated only in accordance with a license issued by the FCC upon a finding that the grant of the license will serve the public interest, convenience and necessity. The FCC grants broadcast television station licenses for specific periods of time, which may be renewed with or without conditions. The FCC recently renewed all of our broadcast television station licenses without conditions. Although our licenses have been renewed, there can be no assurance that we will always obtain renewal grants.

Local Television Ownership

The FCC recently revised its rules to generally permit a licensee to own up to two broadcast stations in the same DMA as long as at least one of the stations is not among the top four-ranked stations in the DMA based on audience share. In addition, the new rules permit a licensee to own up to two stations ranked in the top four in a DMA based on a case-by-case analysis of the circumstances surrounding the proposed combination. These recent changes are subject to judicial appeal. These ownership restrictions do not apply if the signal coverage of the stations involved do not overlap in the same market. As part of its 2018 quadrennial review of media ownership regulations, the FCC raised questions about the two-station-per-DMA ownership limit and the criteria by which top-four combinations should be assessed.

National Television Ownership

The Communications Act and FCC regulations limit the number of broadcast television stations one entity may own or control nationally. No entity may have an attributable interest in broadcast television stations that reach, in the aggregate, more than 39% of all U.S. television households. The FCC also has a rule that affords a 50% discount to UHF stations (channels 14 and above) in calculating the extent of an individual station owner's holdings under the national cap. The FCC has initiated a proceeding to consider whether to retain the 50% discount and whether to modify the national television ownership limit. Our owned broadcast television station reach does not exceed the current limit even without considering the discount for UHF stations, but elimination of the 50% discount without an increase in the 39% national cap would place us closer to the national cap and limit our flexibility to acquire stations in the future.

Foreign Ownership

The Communications Act generally limits foreign ownership in a broadcast television station to 20% direct ownership and 25% indirect ownership, although the limit on indirect ownership can be waived if the FCC finds it to be in the public interest.

Dual Network Rule

Each of the four major broadcast television networks - ABC, CBS, Fox and NBC - is prohibited from being under common ownership or control with another of the four. As part of its 2018 quadrennial review of media ownership regulations, the FCC raised questions about whether the dual network rule remains necessary in the public interest.

Must Carry/Retransmission Consent

Every three years, each commercial television station must elect for each cable system in its DMA either must carry or retransmission consent. A similar regulatory scheme applies to satellite providers. For the current three-year period, which commenced on January 1, 2018, all of our owned NBC broadcast television stations and our owned Telemundo broadcast television stations elected retransmission consent.

Indecency

A federal statute and FCC regulations prohibit the broadcast of obscene material on television stations at any time and indecent or profane material between the hours of 6 a.m. and 10 p.m. From time to time, we have received and may receive in the future letters of inquiry from the FCC prompted by complaints alleging that certain programming on our owned local broadcast television stations included indecent or profane material.

Filmed Entertainment

Our filmed entertainment business is subject to “trade practice laws” in effect in 25 states and Puerto Rico relating to theatrical distribution of motion pictures. In countries outside the United States, a variety of existing or contemplated laws and regulations may affect our ability to distribute and license motion picture and television products, as well as consumer merchandise products. The ability of countries to deny market access or refuse national treatment to products originating outside their territories is regulated under various international agreements.

Theme Parks

Our theme parks are subject to various regulations, including laws and regulations regarding environmental protection, privacy and data protection, consumer product safety and theme park operations, such as health, sanitation, safety and fire standards, as well as liquor licenses.

Sky Segment

Sky is subject to regulation primarily under Austrian, German, Irish, Italian, U.K. and European Union (“EU”) law, including telecommunications- and media-specific regulation described below, as well as regulation under generally applicable laws, such as competition, consumer protection, data protection and taxation. Sky is currently, and may be in the future, subject to proceedings or investigations from regulatory and antitrust authorities in the jurisdictions in which it operates. In addition, in connection with our acquisition of Sky, we have made certain legally binding commitments with respect to Sky’s operations, including for example, to maintain annual funding for Sky News in an amount no lower than Sky News’ 2017 fiscal year expenditures, as adjusted by inflation, until 2029.

Platform Services

In the U.K., under the U.K. Communications Act of 2003, Sky is required to ensure that agreements to provide electronic program guide (“EPG”) and conditional access (“CA”) services to other programming providers are on fair, reasonable, and non-discriminatory terms, among other things, so that those providers’ content is available on Sky’s satellite platform via the EPG on Sky’s set-top boxes. Sky also has voluntarily committed to Ofcom, the U.K. regulator, to provide access control services to third parties that enable them to provide interactive services. Sky is subject to similar EPG and CA obligations in Germany under the Interstate Treaty on Broadcasting and Telemedia, as amended by the 20th State Broadcasting Amendment Treaty (the “RStV”).

Television Channels

Sky holds a number of licenses and authorizations for its portfolio of pay TV channels. In the U.K., as a broadcast licensee, Sky is subject to various codes issued by Ofcom affecting the content and delivery of these channels. These codes include, for example, Ofcom’s Broadcasting Code, the Code on the Scheduling of Television Advertising, and the Cross-Promotion Code. Sky also holds various nationwide broadcast licenses in Germany, and must comply with the RStV; the applicable laws of the federal state in Germany that has granted the broadcasting license; and with the Interstate Treaty on the Protection of Minors. These include regulations regarding media concentration, television advertising, accessibility, airtime for commercials and teleshopping, sponsorship, and the requirement for a clear distinction between program content and advertising. Sky is also a holder of broadcasting licenses in Austria and is subject to broadcast regulations under the Austrian Act on Audiovisual Media Services, such as regulations governing content, advertisements, and the protection of children. In addition, Sky is subject to Austrian rules on media plurality, which prohibit broadcasters in Austria from exceeding certain media coverage thresholds. In Italy, Sky must comply with various requirements regarding broadcast authorizations, including provisions that protect media plurality, obligations requiring broadcasters to guarantee equal treatment between political parties during elections, advertising limits, the protection of children and parental controls, the protection of IP rights, and consumer protections. NBCUniversal’s international television channels are subject to similar regulations in jurisdictions in which they operate.

High-Speed Internet and Voice Services

Sky provides broadband and voice services in the U.K. and Ireland pursuant to wholesale distribution agreements that third-party broadband and telecommunications companies are required to make available under applicable laws in those jurisdictions. Material changes to these regulations could affect Sky's business. Sky is also subject to EU open internet regulations, which prohibit the blocking, throttling, or discrimination of online content, applications, and services and require ISPs to disclose their traffic management, throughput limitations, and other practices impacting quality of service in customer contracts.

Other Areas of Regulation

Intellectual Property

Copyright, trademark, unfair competition, patent, trade secret and other proprietary-rights laws of the United States and other countries help protect our intellectual property rights. In particular, unauthorized copying, distribution, and piracy of programming and films over the internet, through devices, software and websites, and through counterfeit DVDs, and other platforms, interfere with the market for copyrighted works and present challenges for NBCUniversal's cable networks, broadcast television and filmed entertainment businesses and Sky's businesses. We have actively engaged in the enforcement of our intellectual property rights and likely will continue to expend substantial resources to protect our content. Although many legal protections exist to combat such practices, the extent of copyright protection and the use of technological protections are controversial. Modifications to existing laws, a weakening of these protections, or a failure of existing laws, in the United States or internationally, to adapt to new technologies could have an adverse effect on our ability to license and sell our programming.

U.S. copyright laws also require that our video business contribute a percentage of revenue to a federal copyright royalty pool in exchange for retransmitting copyrighted material in broadcast signals under a cable compulsory license and that we pay standard industry licensing fees for the public performance of music in the programs we create or distribute. The cable compulsory license royalties we pay are subject to audit by copyright owners, and we cannot predict how any disputes regarding our royalty calculations will impact those fees in the future. In addition, the Copyright Office has initiated a rulemaking to consider how royalty payments should be calculated under the cable compulsory license. We cannot predict the outcome of this rulemaking, but there is a risk that it could result in higher royalty payments. It is also possible that Congress will eliminate or modify the cable compulsory license in the future, which could impact the retransmission of broadcast signals over cable systems. The music fees we pay are typically renegotiated when we renew licenses with performing rights organizations. The landscape for music licensing is constantly changing. New performing rights organizations have formed to seek higher royalties for the use of music they represent, and other organizations seek royalties for performance rights for which no compensation is currently required. We cannot predict how renegotiation of current rights and future changes in music royalties will affect the music fees that we pay.

Privacy and Data Security Regulation

The Communications Act generally restricts cable operators' nonconsensual collection and disclosure to third parties of cable customers' personally identifiable information, except for rendering service, conducting legitimate business activities related to the service, and responding to legal requests. We are also subject to various state and federal regulations that provide privacy protections for customer proprietary network information related to our voice services.

The FTC generally exercises oversight of consumer privacy protections using its enforcement authority over unfair and deceptive acts or practices.

In addition, certain states have exercised oversight of consumer privacy protections in their respective states. The FTC and state attorney generals regularly initiate efforts to update or enforce transparency requirements about the collection and use of consumer information, which may require ongoing review of new and rapidly evolving technologies and methods for delivering content and advertising to ensure that appropriate notice is given to consumers and consent is obtained where required.

In May 2018, the EU's General Data Protection Regulation ("GDPR"), which broadly regulates the processing of personal data collected from individuals in the EU regardless of whether the processing actually takes place in the EU, came into effect. GDPR and the Member States' legislation implementing the GDPR, affect our ability to process certain personal data. We cannot predict how regulators will interpret the scope or requirements of GDPR.

Privacy and data security legislation remained a priority issue in 2018 in many U.S. states and localities, as well as foreign jurisdictions outside of the EU. For example, California enacted the California Consumer Privacy Act ("CCPA"), which broadly regulates the sale of the consumer information of California residents and grants California residents certain rights to, among other things, access and delete data about them in certain circumstances. CCPA goes into effect on January 1, 2020, and compliance with the CCPA may increase the cost of providing our services in California. Other states are considering similar proposals. Such attempts by the states to regulate have the potential to create a patchwork of differing and/or conflicting state regulations.

Additionally, there are pending federal legislative proposals that, if enacted, could create new consumer privacy protections or impose new requirements on entities that collect and use consumer personal information, including us. We cannot predict whether such legislation will be enacted at the federal or state level and, if so, the impact of any such laws on our business.

We are also subject to stringent data security and data retention requirements that apply to website operators and online services directed to children under 13 years of age, or that knowingly collect or post personal information from children under 13 years of age. In addition, we are subject to state and federal laws and regulations regarding data security that primarily apply to any person's sensitive personal information that could be used to commit identity theft. Most states have security breach notification laws that generally require a business to give notice to consumers and government agencies when certain information has been disclosed to an unauthorized party due to a security breach, and the FCC has adopted security breach rules for voice services. Several states have also enacted general data security requirements to safeguard consumer information, including the proper disposal of consumer information

We are also subject to state and federal "do not call" laws regarding telemarketing and state and federal laws regarding unsolicited commercial emails, as well as FCC regulations relating to automated telemarketing calls, texts and SMS messages.

FCC Spectrum Auction and Repacking

In 2017, as a result of an incentive auction conducted by the FCC to repurpose television broadcast spectrum for mobile broadband use, NBCUniversal sold broadcast spectrum rights associated with television stations in three of its markets. Those stations vacated their sold spectrum but continue to operate by sharing channels with other NBCUniversal stations in those markets. The FCC assigned 23 of NBCUniversal's other television stations that did not sell their spectrum rights to new channels; those stations are in the process of transitioning to their new channels in a post-auction repacking process that is scheduled to conclude in the third quarter of 2020, and the FCC will reimburse those stations for a portion of their reasonable relocation costs (subject to a nationwide aggregate limit of $2.75 billion). As a result of the repacking process, Comcast will have to make changes to its cable systems to accommodate broadcasters on their newly assigned channels, and will be reimbursed by the FCC for a portion of those related costs (subject to a nationwide aggregate limit of $2.75 billion).

In addition, we acquired 73 new mobile broadband licenses in this auction for $1.7 billion. We will be obligated to meet certain regulatory requirements concerning the use of these licenses over the coming years.

FCC 5G Spectrum Proceedings and Other Wireless Laws and Regulations

In multiple regulatory proceedings, the FCC is currently considering establishing and/or modifying its rules to make available additional spectrum that will likely be used to provide the next generation of commercial wireless broadband services, commonly referred to as 5G services. Some of this spectrum is currently used for satellite delivery of broadcast and cable programming to cable headends and broadcast stations, including our own, and there is a risk that such satellite delivery could be disrupted if the FCC were to adopt certain proposals. In addition, there is potential for new legislation or FCC regulations that could enable wireless providers to offer video and other services over their networks subject to different, and possibly fewer, regulatory obligations than the services we provide. We cannot predict what rules or legislation, if any, will ultimately be adopted or how any such changes would affect our businesses.

State and Local Taxes

Some states and localities have imposed or are considering imposing, through both legislative and administrative channels, new or additional taxes or fees on, or limiting or eliminating incentives or credits earned or monetized by, the businesses operated by our Cable Communications and NBCUniversal segments, or imposing adverse methodologies by which taxes, fees, incentives or credits are computed, earned or monetized. These include combined reporting or other changes to general business taxes, central assessments for property tax and taxes and fees on the businesses operated or services provided by our Cable Communications and NBCUniversal segments. In some situations, DBS providers and other competitors that deliver their services over a high-speed internet connection do not face the same state tax and fee burdens. Congress has also considered, and may consider again, proposals to bar or limit states from imposing taxes on these DBS providers or other competitors that are equivalent to the taxes or fees that we pay. The Internet Tax Freedom Act, which prohibits most states and localities from imposing sales and other taxes on our internet access charges, was made permanent by 2016 legislation; however, some jurisdictions have or may assert that certain taxes akin to right-of-way fees are not preempted by Internet Tax Freedom Act.

Environmental Matters

Certain of our business operations are subject to environmental laws and regulations since they involve air emissions, wastewater discharges and the use, disposal and cleanup of toxic and hazardous substances. Any failure to comply with environmental requirements could result in monetary fines, civil or criminal sanctions, third-party claims or other costs or liabilities. Environmental requirements have become more stringent over time, and pending or proposed new regulations could impact our operations or costs.

U.K. Exit from the European Union

The telecommunications and media regulatory framework applicable to Sky and NBCUniversal's businesses in the U.K. and the EU may be subject to greater uncertainty in the event that the U.K. leaves the EU. We cannot predict the extent of any potential changes to the regulatory framework involving U.K. and EU regulation of telecommunications and media, or changes to certain mutual recognition arrangements for media and broadcasting.

Other Regulations

U.S. states and localities, and various regulatory authorities actively regulate other aspects of our businesses, including accessibility to our video and voice services and broadcast television programming for people with disabilities, customer service standards, inside wiring, cable equipment, leased access, loudness of commercial advertisements, advertising, Emergency Alert System, equal employment opportunity and other employment-related laws, lottery programming, recordkeeping and public file requirements, regulatory fees and technical standards relating to the operation of cable systems and television stations. In addition, our international businesses are subject to various international regulations, including those that cover television broadcasting, programming and advertising. We are occasionally subject to enforcement actions and investigations at the FCC and other federal, state, and local agencies, as well as foreign governments and regulatory authorities, which can result in us having to pay fines to the agency or being subject to other sanctions.

Employees

As of December 31, 2018, we had approximately 184,000 full-time and part-time employees calculated on a full-time equivalent basis. Of these employees, approximately 88,000, 64,000 and 30,000 were associated with our cable communications business, our NBCUniversal businesses and our Sky business, respectively. We also use freelance and temporary employees in the normal course of our business.

Caution Concerning Forward-Looking Statements

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. In this Annual Report on Form 10-K, we state our beliefs of future events and of our future financial performance. In some cases, you can identify these so-called "forward-looking statements" by words such as "may," "will," "should," "expects," "believes," "estimates," "potential," or "continue," or the negative of these words, and other comparable words. You should be aware that these statements are only our predictions. In evaluating these statements, you should consider various factors, including the risks and uncertainties listed in "Risk Factors" and in other reports we file with the SEC.

Additionally, we operate in a highly competitive, consumer-driven and rapidly changing environment. This environment is affected by government regulation; economic, strategic, political and social conditions; consumer response to new and existing products and services; technological developments; and, particularly in view of new technologies, the ability to develop and protect intellectual property rights. Our actual results could differ materially from our forward-looking statements as a result of any of such factors, which could adversely affect our businesses, results of operations or financial condition. We undertake no obligation to update any forward-looking statements.

Item 1A: Risk Factors

Our businesses currently face a wide range of competition, and our businesses and results of operations could be adversely affected if we do not compete effectively.

All of our businesses operate in intensely competitive, consumer-driven and rapidly changing environments and compete with a growing number of companies that provide a broad range of communications products and services and entertainment, news and information content to consumers. Online video distribution platforms are further intensifying and complicating the competitive landscape and influencing consumer behavior, which is discussed in the risk factor immediately below under the heading "Changes in consumer behavior driven by online video distribution platforms for viewing content could adversely affect our businesses and challenge existing business models."

Competition for Cable Communications' cable services consists primarily of phone companies with fiber-based networks and DBS providers that typically offer features, pricing and packaging for services comparable to ours. Some of these competitors are also offering smaller packages of channels at price points lower than our standard packages, both through traditional and online video distribution platforms, which could cause us to offer more customized programming packages that may be less profitable. Consolidation between phone companies (which are also wireless distributors) and content providers in the United States provides competitors with the ability to offer free or lower cost streaming services for viewing their content, potentially on an exclusive basis, through unlimited data-usage plans for their internet or wireless phone services. Additional companies, some with significant financial resources, continue to enter or are seeking to enter the video distribution market, either by offering OTT streaming services or selling devices that aggregate viewing of various OTT services.

Sky faces competition in video, high-speed internet and voice services from cable and/or telecommunications providers in each of its European markets. More providers in Europe now offer customers bundles of services, which has increased competition. The intensity of this competition has increased in recent years, including as a result of OTT streaming services.

Cable Communications' and Sky's high-speed internet services compete primarily against phone companies with fiber-based networks offering speeds and pricing comparable to ours. Wireless internet services, such as 4G and 5G wireless broadband services, satellite-delivered internet services and Wi-Fi networks, and devices such as smartphones, tablets, wireless data cards, and mobile wireless routers that connect to such devices, also may compete with our high-speed internet services, particularly as wireless technology evolves. Some municipalities in the United States own and operate their own broadband networks, and additional municipalities may do so as well. Cable Communications' and Sky's wireline voice services are facing increased competition as customers replace wireline phones with wireless and internet-based phone services.

We continue to seek ways to enhance the value of Cable Communications' cable services network, such as by growing high-speed internet services and business services and by launching additional services, such as our security and automation services. Sky also is seeking ways to enhance the value of its services. There can be no assurance that we can execute on these and other initiatives in a manner sufficient to grow or maintain our Cable Communications or Sky segment revenue, maintain Cable Communications or Sky segment operating margins or to compete successfully in the future.

Each of NBCUniversal's businesses and Sky also face substantial and increasing competition from providers of similar types of content, as well as from other forms of entertainment and recreational activities. NBCUniversal and Sky must compete to obtain talent, content and other resources required in operating these businesses.

The ability of all of our businesses to compete effectively depends on our perceived image and reputation among our various constituencies, including our customers, consumers, advertisers, investors and government authorities. Our ability to compete will be negatively affected if we do not provide our customers with a satisfactory customer experience.

There can be no assurance that we will be able to compete effectively against existing or newer competitors or that competition will not have an adverse effect on our businesses. For a more detailed description of the competition facing our businesses, see Item 1: Business and refer to the "Competition" discussion within that section.

Changes in consumer behavior driven by online video distribution platforms for viewing content could adversely affect our businesses and challenge existing business models.

Distribution platforms for viewing and purchasing content over the internet have been, and will likely continue to be, developed that further increase the number of competitors that all our businesses face and challenge existing business models. These distribution platforms are driving changes in consumer behavior as consumers seek more control over when, where and how they consume content and access communications services, and how much they pay for such content.

Consumers are increasingly turning to online sources for viewing and purchasing content, which has and likely will continue to reduce the number of Cable Communications' video customers and subscribers to NBCUniversal's cable networks even as it makes Cable Communications' high-speed internet services more important to consumers. While these changes are primarily affecting our U.S. businesses today, there can be no assurance that they will not also affect Sky's businesses to a similar extent in the future, even with Sky offering a standalone OTT video streaming service. Although we have attempted to adapt our video service offerings to changing consumer behaviors, for example, by deploying the X1 platform and adding apps such as Netflix and Amazon Prime Video on set-top boxes, virtual multichannel video providers, online video distributors and programming networks providing their content directly to consumers over the internet rather than through traditional video distribution services continue to emerge, gain consumer acceptance and disrupt traditional video distribution services. Many of these service offerings charge no fee or a lower fee than traditional video packages for access to their content, which could have an adverse effect on demand for Cable Communications' and Sky's video services, including for expanded video packages, premium networks, and DVR and On Demand services.

An increasing number of companies offering OTT streaming services, including some with exclusive high-quality original video programming, as well as programming networks offering content directly to consumers over the internet, have increased the number of entertainment choices available to consumers, which has intensified audience fragmentation. The increase in entertainment choices adversely affects the audience ratings of NBCUniversal's cable networks and broadcast television programming and Sky's owned television channels. Time-shifting technologies, such as video on demand services and DVR and cloud-based recording services, also reduce the viewing of content through traditional and virtual multichannel video providers, which has caused and likely will continue to cause audience ratings declines for NBCUniversal's cable networks and broadcast television programming and Sky's owned television channels, and may adversely affect the price and amount of advertising that advertisers are willing to purchase from us and the amount NBCUniversal and Sky receive for distribution of their content.

The success of any of these ongoing or future developments or our failure to effectively anticipate or adapt to emerging competitors or changes in consumer behavior, including among younger consumers, could have an adverse effect on our competitive position, businesses and results of operations.

A decline in advertisers' expenditures or changes in advertising markets could negatively impact our businesses.

Our cable communications, cable networks, broadcast television, and Sky businesses compete for the sale of advertising time with other television networks and stations, as well as with all other advertising platforms, such as digital media, radio and print. We derive substantial revenue from the sale of advertising, and a decline in expenditures by advertisers, including through traditional linear television distribution models, could negatively impact our results of operations. Declines can be caused by the economic prospects of specific advertisers or industries, increased competition for the leisure time of viewers, such as from social media and video games, and audience fragmentation, increased viewing of ad-free content through online video distribution platforms, regulatory intervention regarding where advertising may be placed, or the economy in general. In addition, advertisers' willingness to purchase advertising from us may be adversely affected by lower audience ratings, which many of NBCUniversal's networks and Sky's television channels have experienced and likely will continue to experience. Advertising sales and rates also are dependent on the methodology used for audience measurement and could be negatively affected if methodologies do not accurately reflect actual viewership levels. For example, certain methods of viewing content, such as viewing content through many online video distribution platforms or delayed viewing on DVRs, might not be counted in audience measurements or may generate less, if any, revenue than traditional linear television distribution methods, which could have an adverse effect on our advertising revenue.

Our businesses depend on keeping pace with technological developments.

Our success is, to a large extent, dependent on our ability to acquire, develop, adopt and leverage new and existing technologies, and our competitors' use of certain types of technology and equipment may provide them with a competitive advantage. For example, current and new wireless internet technologies such as 4G and 5G wireless broadband services continue to evolve rapidly to allow for greater speed and reliability, and some companies and municipalities are building advanced fiber-based networks that provide very fast internet access speeds. We expect other advances in communications technology to occur in the future. If we choose technology or equipment that is not as effective or attractive to consumers as that employed by our competitors, if we fail to employ technologies desired by consumers before our competitors do so, or if we fail to execute effectively on our technology initiatives, our businesses and results of operations could be adversely affected. We also will continue to incur additional costs as we execute our technology initiatives, such as the U.S. deployment of DOCSIS 3.1 and DOCSIS FDX, our X1 and Sky Q set-top boxes, cloud DVR and wireless gateways. There can be no assurance that we can execute on these and other initiatives in a manner sufficient to grow or maintain our revenue or to compete successfully in the future. We also may generate less revenue or incur increased costs if changes in our competitors' product offerings require that we offer certain of our existing services or enhancements at a lower or no cost to our customers or that we increase our research and development expenditures.

We are subject to regulation by federal, state, local and foreign authorities, which impose additional costs and restrictions on our businesses.

In the United States, federal, state and local governments extensively regulate the high-speed internet, video and voice services industries. Our broadcast television business is also highly regulated by U.S. laws and regulations. NBCUniversal's cable networks, filmed entertainment and theme parks businesses are also subject to various other laws and regulations at the international, federal, state and local levels. Sky's business is subject to various telecommunications and media-specific regulations in most of the countries where it operates. The FCC and certain state attorneys general and foreign governmental authorities also have been active in conducting inquiries and reviews regarding our services, and this trend likely will continue. Failure to comply with the laws and regulations applicable to our businesses could result in administrative enforcement actions, fines, and civil and criminal liability.

Legislators and regulators at all levels of government, including foreign authorities, frequently consider changing, and sometimes do change, existing statutes, rules or regulations, or interpretations of existing statues, rules or regulations, or prescribe new ones, any of which may significantly affect our businesses. These legislators and regulators have been active in considering rulemakings and legislation regarding our services. For example, some states have passed or introduced legislation or executive orders that

impose various open internet and data privacy requirements. Such attempts by the states to regulate portions of our businesses have the potential to create a patchwork of differing and/or conflicting state regulations. These requirements and any future legislative, judicial, regulatory or administrative actions may increase our costs or impose additional restrictions on our businesses, some of which may be significant. The U.S. Congress may consider proposals to address communications issues, including whether it should rewrite the entire Communications Act to account for changes in the communications marketplace, whether it should enact new, permanent open internet requirements and whether it should fund new broadband infrastructure. We are unable to predict the outcome or effects of any of these potential actions or any other legislative or regulatory proposals on our businesses. Any changes to the legal and regulatory framework applicable to any of our services or businesses could have an adverse impact on our businesses and results of operations. For a more extensive discussion of the significant risks associated with the regulation of our businesses, see Item 1: Business and refer to the "Legislation and Regulation" discussion within that section.

Programming expenses for our video services are increasing, which could adversely affect Cable Communications' and Sky's video businesses.

We expect programming expenses for our video services to continue to be the largest single expense item for our Cable Communications and Sky segments and to increase for the foreseeable future. Our programming expenses may also increase as we add programming to our video services or distribute existing programming to more of our customers or through additional delivery platforms, such as On Demand or streaming services. Additionally, Cable Communications pays certain local broadcast television stations in exchange for their required consent for the retransmission of broadcast network programming to video services customers; we expect to continue to be subject to increasing demands for payment and other concessions from local broadcast television stations. These market factors may be exacerbated by increased consolidation in the media industry, which may further increase our programming expenses. If we are unable to raise our customers' rates or offset programming cost increases through the sale of additional services or cost management initiatives, the increasing cost of programming could have an adverse effect on our Cable Communications and Sky segments' results of operations.

Moreover, as our contracts with content providers expire, there can be no assurance that they will be renewed on acceptable terms, if renewed at all, in which case we may be unable to provide such content as part of Cable Communications' or Sky's video services, and our businesses and results of operations could be adversely affected.

NBCUniversal's and Sky's success depends on consumer acceptance of their content, and their businesses may be adversely affected if their content fails to achieve sufficient consumer acceptance or the costs to create or acquire content increase.

Most of NBCUniversal's, as well as Sky's, businesses create and acquire media and entertainment content, the success of which depends substantially on consumer tastes and preferences that change in often unpredictable ways. The success of these businesses depends on our ability to consistently create, acquire, market and distribute NBCUniversal's cable network and broadcast television programming, Sky's owned television channels, filmed entertainment, theme park attractions and other content that meet the changing preferences of the broad domestic and international consumer markets. We have invested, and will continue to invest, substantial amounts in our content, including in the production of original content on NBCUniversal's cable networks and broadcast television networks and Sky's owned television channels, in our films and for theme park attractions, before learning the extent to which it will earn consumer acceptance.

NBCUniversal and Sky also obtain a significant portion of their content from third parties, such as movie studios, television production companies, sports organizations and other suppliers, including in the case of Sky, sometimes on an exclusive basis. Competition for popular content, particularly for sports programming, is intense, and we may have to increase the price we are willing to pay or be outbid by our competitors for popular content. Entering into or renewing contracts for such programming rights or acquiring additional rights may result in significantly increased costs. Particularly with respect to long-term contracts for sports programming rights for NBCUniversal and Sky, our results of operations and cash flows over the term of a contract depend on a number of factors, including the strength of the advertising market, audience size, the ability to secure distribution from and impose surcharges or obtain carriage on multichannel video providers for NBCUniversal's content, and the timing and amount of rights payments. There can be no assurance that revenue from these contracts will exceed our costs for the rights, as well as the other costs of producing and distributing the programming. If our content does not achieve sufficient consumer acceptance, or if we cannot obtain or retain rights to popular content on acceptable terms, or at all, NBCUniversal's and Sky's businesses may be adversely affected.

The loss of NBCUniversal's programming distribution agreements, or the renewal of these agreements on less favorable terms, could adversely affect our businesses.

NBCUniversal's cable networks depend on their ability to secure and maintain distribution agreements with traditional and virtual multichannel video providers. Increasingly, NBCUniversal's cable networks, broadcast television and filmed entertainment businesses are entering into agreements to license their prior season and library content on other distribution platforms, including subscription video on demand services. If NBCUniversal's programming does not attract sufficient viewers, traditional and virtual multichannel video providers may decide not to distribute NBCUniversal's broadcast and cable networks, and OTT video streaming services may not license programming we create. In addition, the number of subscribers to NBCUniversal's cable networks has been, and may continue to be reduced, as a result of multichannel video providers offering smaller packages of channels as part of their virtual or traditional television programming packages and by overall reduced viewing of television programming through multichannel video providers.

NBCUniversal's broadcast television networks depend on their ability to secure and maintain network affiliation agreements with third-party local broadcast television stations in the markets where it does not own the affiliated local broadcast television station. In addition, every three years, each of its owned local broadcast television stations must elect, with respect to its retransmission by multichannel video providers within its DMA, either "must-carry" status, in which the distributor's carriage of the station is mandatory and does not generate any compensation for the local station, or "retransmission consent," in which the station gives up its right to mandatory carriage and instead seeks to negotiate the terms and conditions of carriage with the distributor, including the amount of compensation, if any, paid to the station by such distributor. For the current three-year period, which commenced on January 1, 2018, all of our owned NBC broadcast television stations and our owned Telemundo broadcast television stations elected retransmission consent. However, certain illegal online entities may stream our broadcast television content online without our consent and without paying any compensation to us.

There can be no assurance that any of our distribution agreements will be renewed in the future on acceptable terms, or at all. The loss of any of these agreements, or the renewal of these agreements on less favorable terms, could reduce NBCUniversal's revenues and the reach of our television programming and its attractiveness to advertisers, which in turn could adversely affect NBCUniversal's cable networks, broadcast television and filmed entertainment businesses.

Less favorable regulation, the loss of Sky's transmission agreements with satellite or telecommunications providers or the renewal of these agreements on less favorable terms, could adversely affect Sky's businesses.

Sky relies on various telecommunications providers to deliver its video, high-speed internet, voice and wireless phone services to its customers. For example, Sky relies on satellites leased from third parties to provide most of its video services. In addition, pursuant to the current regulatory regime in the U.K. and Italy, Sky is able to access networks owned by third-party telecommunication providers to provide its high-speed internet and phone services, in most cases, on regulated terms, including price. These regulated terms could become less favorable. Moreover, while Sky is able to receive wholesale fiber access on fair, reasonable and non-discriminatory terms, pricing terms are not regulated. If Sky is unable to enter into or renew its transmission agreements with satellite or telecommunications operators on commercially reasonable terms or if these operators were to terminate their agreements, Sky may be unable to deliver some of its services to customers in one or more of the countries in which it operates.

The loss of Sky's wholesale distribution agreements with traditional multichannel video providers could adversely affect Sky's businesses.

Sky benefits from its ability to secure and maintain wholesale distribution agreements for its television channels with traditional multichannel video providers. There can be no assurance that any of its distribution agreements will be renewed in the future on acceptable terms, or at all. The loss of any of these agreements, or the renewal of these agreements on less favorable terms, could reduce Sky's revenues and the reach of its television programming and its attractiveness to advertisers, which in turn could adversely affect Sky's businesses.

We rely on network and information systems and other technologies, as well as key properties, and a disruption, cyber attack, failure or destruction of such networks, systems, technologies or properties may disrupt our businesses.

Network and information systems and other technologies, including those related to our network management, customer service operations, and programming delivery, and technology embedded in our products and services, are critical to our business activities. Cyber threats and attacks are directed at both known and newly discovered software and hardware vulnerabilities and are constantly evolving, which increases the difficulty of detecting and successfully defending against them. Cyber threats and attacks can have cascading impacts that unfold with increasing speed across networks, information systems and other technologies. Network, information systems and technology-related events, including those caused by us, such as process breakdowns, security architecture or design vulnerabilities, or by third parties, such as computer hackings, cyber attacks, computer viruses, worms or other destructive or disruptive software, denial of service attacks, malicious social engineering or other malicious activities, or power outages, natural disasters, infectious disease outbreaks, terrorist attacks or other similar events, could result in a degradation or disruption of our products and services, excessive call volume to call centers, theft or misuse of our intellectual property or other assets, a reduction in demand for our theme parks, disruption of the security of our internal systems and products and services or satellite transmission signals, the compromise of confidential or technical business information or damage to our equipment, data, properties and reputation. In addition, severe weather events such as hurricanes and wild fires have impacted our services, products and properties from time to time in the past and will in the future. The occurrence of these events may result in large expenditures to repair or replace the damaged properties, products, services, networks or information systems to protect them from similar events in the future, and any such events could lead to litigation or otherwise have an adverse effect on our results of operations.

In addition, we obtain certain confidential, proprietary and personal information about our customers, personnel and vendors, and may in some cases provide this information to third parties, in connection with our business. While we generally obtain assurances that these third parties will protect this information, there is a risk that this information may be compromised. Any security breaches, such as misappropriation, misuse, leakage, falsification or accidental release or loss of information maintained in our third-party's information technology systems, including customer, personnel and vendor data, could damage our reputation and require us to expend significant capital and other resources to remedy any such security breach, could lead to litigation or could cause regulators to impose fines or other remedies for failure to comply with relevant customer privacy rules.

The risk of systems-related events and security breaches occurring continues to intensify in many of our businesses, and our businesses may be at a disproportionately heightened risk of these events occurring, due to the nature of our businesses and because we maintain certain information necessary to conduct our business in digital form. In the ordinary course of our business, there are frequent attempts to cause such systems-related events and security breaches. We have experienced minor systems-related events that, to date, have not resulted in any significant degradation or disruption to our network or information systems or our products, services or operations. While we develop and maintain systems, and operate an extensive security program, seeking to prevent systems-related events and security breaches from occurring, the development, maintenance and operation of these systems and programs is costly and requires ongoing monitoring and updating as technologies change and efforts to overcome security measures become more sophisticated and evolve rapidly. Despite our efforts to prevent these events and security breaches, there can be no assurance that they will not occur in the future or will not have an adverse effect on our businesses. Moreover, the amount and scope of insurance we maintain against losses resulting from any such events or security breaches likely would not be sufficient to cover our losses or otherwise adequately compensate us for any disruptions to our business that may result, and the occurrence of any such events or security breaches could have an adverse effect on our business.

Our businesses depend on using and protecting certain intellectual property rights and on not infringing the intellectual property rights of others.

We rely on our intellectual property, such as patents, copyrights, trademarks and trade secrets, as well as licenses and other agreements with our vendors and other third parties, to use various technologies, conduct our operations and sell our products and services. Legal challenges to our intellectual property rights and claims of intellectual property infringement by third parties could require that we enter into royalty or licensing agreements on unfavorable terms, incur substantial monetary liability, or be enjoined preliminarily or permanently from further use of the intellectual property in question, from importing into the United States or other jurisdictions in which we operate hardware that uses such intellectual property or from the continuation of our businesses as currently conducted. We may need to change our business practices if any of these events occur, which may limit our ability to compete effectively and could have an adverse effect on our results of operations. Even if we believe any such challenges or claims are without merit, they can be time-consuming and costly to defend and divert management's attention and resources away from our businesses. Moreover, if we are unable to obtain or continue to obtain licenses from our vendors and other third parties on reasonable terms, our businesses could be adversely affected.

In addition, intellectual property constitutes a significant part of the value of NBCUniversal's and Sky's businesses, and their success is highly dependent on protecting the intellectual property rights of the content they create or acquire against third-party misappropriation, reproduction or infringement. The unauthorized reproduction, distribution or display of copyrighted material

negatively affects our ability to generate revenue from the legitimate sale of our content, as well as from the sale of advertising in connection with our content, and increases our costs due to our active enforcement of our intellectual property rights.

Piracy and other unauthorized uses of content are made easier, and the enforcement of intellectual property rights more challenging, by technological advances that allow the conversion of programming, films and other content into digital formats, which facilitates the creation, transmission and sharing of high-quality unauthorized copies. In particular, piracy of programming and films through unauthorized distribution on DVDs, peer-to-peer computer networks and other platforms continues to present challenges for NBCUniversal's cable networks, broadcast television and filmed entertainment businesses. It also presents similar challenges for Sky's businesses, including as a result of illegal retransmission of sports events. While piracy is a challenge in the United States, it is particularly prevalent in many parts of the world that lack developed copyright laws, effective enforcement of copyright laws and technical protective measures like those in effect in the United States. If any U.S. or international laws intended to combat piracy and protect intellectual property rights are repealed or weakened or are not adequately enforced, or if the legal system fails to adapt to new technologies that facilitate piracy, we may be unable to effectively protect our rights, the value of our intellectual property may be negatively impacted and our costs of enforcing our rights may increase.

We may be unable to obtain necessary hardware, software and operational support.

We depend on third-party vendors to supply us with a significant amount of the hardware, software and operational support necessary to provide certain of our products and services. Some of these vendors represent our primary source of supply or grant us the right to incorporate their intellectual property into some of our hardware and software products. While we actively monitor the operations and financial condition of key vendors in an attempt to detect any potential difficulties, there can be no assurance that we would timely identify any operating or financial difficulties associated with these vendors or that we could effectively mitigate our risks with respect to any such difficulties. If any of these vendors experience operating or financial difficulties, if our demand exceeds their capacity or if they are otherwise unable to meet our specifications or provide the equipment, products or services we need in a timely manner (or at all), or at reasonable prices, our ability to provide some products or services may be adversely affected and we may incur additional costs.

Weak economic conditions may have a negative impact on our businesses.

A substantial portion of our revenue comes from customers whose spending patterns may be affected by prevailing economic conditions. Weak economic conditions in the United States or globally could adversely affect demand for any of our products and services and have a negative impact on our results of operations. For example, customers may reduce the level of cable services to which they subscribe, or may discontinue subscribing to one or more of Cable Communications' cable services or Sky's services. This risk may be increased by the expanded availability of free or lower cost competitive services, such as OTT video services, or substitute services for high-speed internet and voice services, such as mobile phones and Wi-Fi networks. Weak economic conditions also may have a negative impact on our advertising revenue, the performance of our films and home entertainment releases, and attendance and spending in our theme parks.

Weak economic conditions and disruption in the global financial markets may also have an impact on the ability of third parties to satisfy their obligations to us or increase our exposure to currency fluctuations in countries where we operate. In addition, in connection with our acquisition of Sky, we incurred and assumed a significant amount of additional debt. If our businesses are negatively impacted by weak economic conditions, we may not be able to reduce the amount of our debt outstanding as quickly as expected. Further, a significant increase in interest rates or disruption in the global financial markets may affect our ability to obtain financing or to refinance existing debt on acceptable terms, if at all, and could increase the cost of our borrowings.

Acquisitions and other strategic initiatives present many risks, and we may not realize the financial and strategic goals that we had contemplated.

From time to time, we make acquisitions and investments and may pursue other strategic initiatives, including our 2018 acquisition of Sky and 2017 launch of a wireless phone service using virtual network operator rights. In connection with such acquisitions and strategic initiatives, we may incur unanticipated expenses, fail to realize anticipated benefits and synergies, have difficulty incorporating an acquired or new line of business, disrupt relationships with current and new employees, customers and vendors, incur significant debt, or have to delay or not proceed with announced transactions or initiatives. Additionally, federal regulatory agencies such as the FCC or DOJ or international regulators may impose restrictions on the operation of our businesses as a result of our seeking regulatory approvals for any significant acquisitions and strategic initiatives, or may dissuade us from pursing certain transactions. The occurrence of any of these events could have an adverse effect on our business and results of operations.

Unfavorable litigation or governmental investigation results could require us to pay significant amounts or lead to onerous operating procedures.

We are subject from time to time to a number of lawsuits both in the United States and in foreign countries, including claims relating to competition, intellectual property rights (including patents), employment and labor matters, personal injury and property

damage, customer privacy, regulatory requirements, advertising, marketing and selling practices, and credit and collection issues. We also spend substantial resources complying with various regulatory and government standards, including any related investigations and litigation. We may incur significant expenses defending any such suit or government charge and may be required to pay amounts or otherwise change our operations in ways that could adversely impact our businesses, results of operations or financial condition.

Labor disputes, whether involving employees or sports organizations, may disrupt our operations and adversely affect our businesses.

Many of NBCUniversal's employees, including writers, directors, actors, technical and production personnel and others, as well as some of our on-air and creative talent employees, are covered by collective bargaining agreements or works councils. Most of NBCUniversal's collective bargaining agreements are industry-wide agreements, and we may lack practical control over the negotiations and terms of the agreements. If we are unable to reach agreement with a labor union before the expiration of a collective bargaining agreement, our employees who were covered by that agreement may have a right to strike or take other actions that could adversely affect us, which could disrupt our operations and reduce our revenue, and the resolution of any disputes may increase our costs. There can be no assurance that we will renew our collective bargaining agreements as they expire or that we can renew them on favorable terms or without any work stoppages.

In addition, our cable networks and broadcast television networks have programming rights agreements of varying scope and duration with various sports organizations to broadcast and produce sporting events, including certain NFL, NHL, NBA and MLB games. Labor disputes in these and other sports organizations could have an adverse effect on our businesses.

The loss of key management personnel or popular on-air and creative talent could have an adverse effect on our businesses.

We rely on certain key management personnel in the operation of our businesses. While we maintain long-term and emergency transition plans for key management personnel and believe we could either identify internal candidates or attract outside candidates to fill any vacancy created by the loss of any key management personnel, the loss of one or more of our key management personnel could have a negative impact on our businesses.

In addition, our cable networks, broadcast television, filmed entertainment and Sky businesses depend on the abilities and expertise of on-air and creative talent. If we fail to attract or retain on-air or creative talent, if the costs to attract or retain such talent increase materially, if we need to make significant termination payments, or if these individuals lose their current appeal, our businesses could be adversely affected.

We face risks relating to doing business internationally that could adversely affect our businesses.

We, primarily through Sky and NBCUniversal, operate our businesses worldwide. There are risks inherent in doing business internationally, including global financial market turmoil; economic volatility and global economic slowdown; currency exchange rate fluctuations and inflationary pressures; the requirements of local laws and customs relating to the publication and distribution of content and the display and sale of advertising; import or export restrictions and changes in trade regulations; difficulties in developing, staffing and managing foreign operations; issues related to occupational safety and adherence to diverse local labor laws and regulations; and potentially adverse tax developments. Sky's businesses in particular are also subject to risks relating to uncertainties and effects of the implementation of the United Kingdom's referendum to withdraw membership from the EU (referred to as "Brexit"), including financial, legal, tax and trade implications. In addition, doing business internationally subjects us to risks relating to political or social unrest, as well as corruption and government regulation, including U.S. laws such as the Foreign Corrupt Practices Act and the U.K. Bribery Act, that impose stringent requirements on how we conduct our foreign operations. If any of these events occur, our businesses may be adversely affected.

Our Class B common stock has substantial voting rights and separate approval rights over several potentially material transactions, and our Chairman and CEO has considerable influence over our company through his beneficial ownership of our Class B common stock.

Our Class B common stock has a non-dilutable 33 1/3% of the combined voting power of our Class A and Class B common stock. This non-dilutable voting power is subject to proportional decrease to the extent the number of shares of Class B common stock is reduced below 9,444,375, which was the number of shares of Class B common stock outstanding on the date of our 2002 acquisition of AT&T Corp.'s cable business, subject to adjustment in specified situations. Stock dividends payable on the Class B common stock in the form of Class B or Class A common stock do not decrease the non-dilutable voting power of the Class B common stock. The Class B common stock also has separate approval rights over several potentially material transactions, even if they are approved by our Board of Directors or by our other shareholders and even if they might be in the best interests of our other shareholders. These potentially material transactions include mergers or consolidations involving us, transactions (such as a sale of all or substantially all of our assets) or issuances of securities that require shareholder approval, transactions that result in any person or group owning shares representing more than 10% of the combined voting power of the resulting or surviving corporation, issuances of Class B common stock or securities exercisable or convertible into Class B common stock, and amendments to our articles of incorporation or by-laws that would limit the rights of holders of our Class B common stock. Brian L. Roberts, our chairman and CEO, beneficially owns all of the outstanding shares of our Class B common stock and, accordingly, has considerable influence over our company and the potential ability to transfer effective control by selling the Class B common stock, which could be at a premium.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

We believe that substantially all of our physical assets were in good operating condition as of December 31, 2018. Our corporate headquarters and Cable Communications segment headquarters are located in Philadelphia, Pennsylvania at One Comcast Center. We own 80% interests in entities whose primary assets are the Comcast Center and the Comcast Technology Center, which is adjacent to the Comcast Center. The Comcast Technology Center opened in 2018 and is a center for Cable Communications' technology and engineering workforce, as well as the home of our NBCUniversal and Telemundo owned local broadcast stations in Philadelphia, Pennsylvania. We also have leases for numerous business offices, warehouses and properties throughout the United States that house divisional information technology operations.

Cable Communications Segment

Our principal physical assets consist of operating plant and equipment, including cable system signal receiving, encoding and decoding devices, headends and distribution networks, and equipment at or near our customers' homes. Our distribution network consists primarily of headends, content distribution servers, coaxial and fiber-optic cables, lasers, routers, switches and related electronic equipment. Our cable plant and related equipment generally are connected to utility poles under pole rental agreements with local public utilities, although in some areas the distribution cable is buried in underground ducts or trenches. Customer premise equipment consists primarily of set-top boxes, cable modems and wireless gateways. The physical components of cable systems require periodic maintenance and replacement.

Our cable system signal reception sites, which consist primarily of antenna towers and headends, and our microwave facilities are located on owned and leased parcels of land, and we own or lease space on the towers on which certain of our equipment is located. We own most of our service vehicles.

Our high-speed internet network consists of fiber-optic cables owned or leased by us and related equipment. We also operate national and regional data centers with equipment that is used to provide services, such as email and web services, to our high-speed internet and voice customers, as well as cloud services to our video customers. In addition, we maintain network operations centers with equipment necessary to monitor and manage the status of our services and network.

We own or lease buildings throughout the U.S. that contain customer service call centers, retail stores and customer service centers, warehouses and administrative space. We also own a building that houses our digital media center. The digital media center contains equipment that we own or lease, including equipment related to network origination, video transmission via satellite and terrestrial fiber-optics, broadcast studios, post-production services and interactive television services.

NBCUniversal Segments

NBCUniversal's corporate headquarters are located in New York, New York at 30 Rockefeller Plaza and include offices and studios, which are used by Headquarters and Other and the Cable Networks and Broadcast Television segments. NBCUniversal owns the space it occupies at 30 Rockefeller Plaza. NBCUniversal also leases space in 10 Rockefeller Plaza which includes *The Today Show* studio, production facilities and offices used by the Broadcast Television segment. Telemundo's leased headquarters and production facilities are located in Miami, Florida and are used by the Broadcast Television segment and Headquarters and Other. The Universal City owned location in California includes offices, studios, and theme park and retail operations which are owned by NBCUniversal and used by all NBCUniversal segments. Our owned CNBC headquarters and production facilities and disaster recovery center are located in Englewood Cliffs, New Jersey and are used by the Cable Networks and Broadcast Televisions segments and Headquarters and Other. We also own or lease offices, studios, production facilities, screening rooms, retail operations, warehouse space, satellite transmission receiving facilities and data centers in numerous locations in the United States and around the world, including property for our owned local broadcast television stations. In addition, we own theme parks and own or lease related facilities in Orlando, Florida; Hollywood, California; and Osaka, Japan, which are used in the Theme Parks segment, and are building a new theme park in Beijing, China.

Sky Segment

Sky's corporate headquarters are located in Middlesex, United Kingdom. Sky owns the space it occupies at Middlesex. Sky leases the Sky Deutschland headquarters located in Unterföhring, Germany and the Sky Italia headquarters located in Milan, Italy.

Additionally, Sky owns and leases offices, production facilities and studios, broadcasting facilities and customer support centers throughout Europe, including in the U.K., Ireland, Germany, Italy and Austria.

Other

The Wells Fargo Center, a large, multipurpose arena in Philadelphia, Pennsylvania that we own, was the principal physical operating asset of our other businesses as of December 31, 2018.

Item 3: Legal Proceedings

Refer to Note 17 to Comcast's consolidated financial statements included in this Annual Report on Form 10-K for a discussion of recent developments related to our legal proceedings.

NBCUniversal is subject to legal proceedings and claims that arise in the ordinary course of its business and it does not expect the final disposition of these matters to have a material adverse effect on its results of operations, cash flows or financial condition, although any such matters could be time-consuming and costly and could injure its reputation.

Item 4: Mine Safety Disclosures

Not applicable.

Part II

Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Comcast's Class A common stock is listed on the NASDAQ Global Select Market under the symbol CMCSA. There is no established public trading market for Comcast's Class B common stock. The Class B common stock can be converted, on a share for share basis, into Class A common stock.

Dividends Declared

2018			2017		
Month Declared:	**Dividend Per Share**		Month Declared:		Dividend Per Share
January	**$**	**0.1900**	January	$	0.1575
May	**$**	**0.1900**	May	$	0.1575
July	**$**	**0.1900**	July	$	0.1575
October (paid in January 2019)	**$**	**0.1900**	October (paid in January 2018)	$	0.1575
Total	**$**	**0.76**	Total	$	0.63

We expect to continue to pay quarterly dividends, although each dividend is subject to approval by our Board of Directors. In January 2019, our Board of Directors approved a 10% increase in our dividend to $0.84 per share on an annualized basis.

Holders of Class A common stock in the aggregate hold 66$^{2}/_{3}$% of the voting power of our common stock. The number of votes that each share of Class A common stock has at any given time depends on the number of shares of Class A common stock and Class B common stock then outstanding, with each share of Class B common stock having 15 votes per share. The Class B common stock represents 33$^{1}/_{3}$% of the combined voting power of our common stock, which percentage is generally non-dilutable under the terms of our articles of incorporation. Mr. Brian L. Roberts beneficially owns all outstanding shares of Class B common stock. Generally, including as to the election of directors, holders of Class A common stock and Class B common stock vote as one class except where class voting is required by law.

Record holders as of December 31, 2018 are presented in the table below.

Stock Class	Record Holders
Class A Common Stock	409,899
Class B Common Stock	3

The table below summarizes Comcast's common stock repurchases during 2018.

Period	Total Number of Shares Purchased		Average Price Per Share	Total Number of Shares Purchased as Part of Publicly Announced Authorization		Total Dollar Amount Purchased Under the Publicly Announced Authorization		Maximum Dollar Value of Shares That May Yet Be Purchased Under the Publicly Announced Authorization[(a)]
First Quarter 2018	38,659,357	$	38.92	38,551,261	$	1,500,000,000	$	5,500,000,013
Second Quarter 2018	38,315,943	$	32.62	38,315,943	$	1,250,000,000	$	4,250,000,013
Third Quarter 2018	35,627,730	$	35.09	35,627,730	$	1,250,000,000	$	3,000,000,013
October 1-31, 2018	—	$	—	—	$	—	$	3,000,000,013
November 1-30, 2018	13,946,514	$	35.85	13,946,514	$	500,000,000	$	2,500,000,013
December 1-31, 2018	13,234,018	$	37.78	13,234,018	$	500,000,000	$	2,000,000,013
Total	**139,783,562**	**$**	**35.80**	**139,675,466**	**$**	**5,000,000,000**	**$**	**2,000,000,013**

(a) Effective January 1, 2017, our Board of Directors increased our share repurchase program authorization to $12 billion, which does not have an expiration date. As of December 31, 2018, $2 billion remained under this authorization.

The total number of shares purchased during 2018 includes 108,096 shares received in the administration of employee share-based compensation plans.

Under our publicly announced share repurchase program authorization, we may repurchase shares in the open market or in private transactions.

Stock Performance Graph

Comcast

The following graph compares the annual percentage change in the cumulative total shareholder return on Comcast's Class A common stock during the five years ended December 31, 2018 with the cumulative total returns on the Standard & Poor's 500 Stock Index and a select peer group consisting of us and other companies engaged in the cable, communications and media industries. This peer group (the "new peer group index") consists of our common stock, DISH Network Corporation (Class A), Charter Communications, Inc., AT&T Inc., Verizon Communications Inc., CenturyLink, Inc., T-Mobile US, Inc., and Sprint Corporation (the "transmission and distribution subgroup"); and Walt Disney Company, Viacom Inc. (Class B), Twenty-First Century Fox, Inc. (Class A), Discovery, Inc. (Class A), and CBS Corporation (Class B) (the "media subgroup"). T-Mobile US, Inc. and Discovery, Inc. (Class A) were added to the new peer group index in 2018.

The prior peer group (the "prior peer group index") consists of our common stock, DISH Network Corporation (Class A), Charter Communications, Inc., AT&T Inc., Verizon Communications Inc., CenturyLink, Inc., and Sprint Corporation (the "transmission and distribution subgroup"); and Time Warner Inc. (which is included through June 14, 2018 when it merged with AT&T Inc.), Walt Disney Company, Viacom Inc. (Class B), Twenty-First Century Fox, Inc. (Class A), and CBS Corporation (Class B) (the "media subgroup").

Both the prior peer group and new peer group are constructed as a composite peer group in which the transmission and distribution subgroup is weighted 61% and the media subgroup is weighted 39% based on the respective revenue of our Cable Communications and NBCUniversal segments. Sky has been excluded from the revenue amounts used to determine the weighting to the transmission and distribution subgroup and media subgroup based on the timing of the acquisition. The comparison assumes $100 was invested on December 31, 2013 in our Class A common stock and in each of the following indices and assumes the reinvestment of dividends.

Comparison of 5 Year Cumulative Total Return

	2014	2015	2016	2017	2018
Comcast Class A	$113	$112	$140	$164	$143
S&P 500 Stock Index	$114	$115	$129	$157	$150
Prior Peer Group Index	$106	$105	$130	$136	$127
New Peer Group Index	$104	$105	$130	$137	$127

NBCUniversal

NBCUniversal is a wholly owned subsidiary of NBCUniversal Holdings and there is no market for its equity securities.

Item 6: Selected Financial Data

Comcast

Year ended December 31 (in millions, except per share data)	2018[b][c]	2017[b][d]	2016[b]	2015	2014
Statement of Income Data					
Revenue	**$ 94,507**	$ 85,029	$ 80,736	$ 74,510	$ 68,775
Operating income	**19,009**	18,018	16,831	15,998	14,904
Net income attributable to Comcast Corporation[a]	**11,731**	22,735	8,678	8,163	8,380
Basic earnings per common share attributable to Comcast Corporation shareholders	**2.56**	4.83	1.80	1.64	1.62
Diluted earnings per common share attributable to Comcast Corporation shareholders	**2.53**	4.75	1.78	1.62	1.60
Dividends declared per common share	**0.76**	0.63	0.55	0.50	0.45
Balance Sheet Data (at year end)					
Total assets	**$ 251,684**	$ 187,462	$ 181,017	$ 166,574	$ 159,186
Total debt, including current portion	**111,743**	64,556	61,046	52,621	48,081
Comcast Corporation shareholders' equity	**71,613**	68,616	53,932	52,269	52,711
Statement of Cash Flows Data					
Net cash provided by (used in):					
Operating activities	**24,297**	21,261	19,691	19,485	17,596
Investing activities	**(50,854)**	(13,533)	(18,265)	(11,964)	(8,733)
Financing activities	**27,140**	(7,572)	(434)	(9,136)	(6,671)

(a) For 2018, 2017 and 2016, refer to Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations included in this Annual Report on Form 10-K for a discussion of the effects of items impacting net income attributable to Comcast Corporation. In 2018, 2017, 2016, 2015 and 2014, net income attributable to Comcast Corporation is stated after deducting net income attributable to noncontrolling interests of $131 million, $187 million, $350 million, $250 million and $212 million, respectively.

(b) Reflects the impact of the adoption of the new accounting standard in 2018 related to revenue recognition. Refer to Note 9 to Comcast's consolidated financial statements for further discussion.

(c) 2018 amounts include the operations of Sky from October 9, 2018 to December 31, 2018. Refer to Note 8 to Comcast's consolidated financial statements for further discussion.

(d) 2017 net income attributable to Comcast Corporation and earnings per common share attributable to Comcast Corporation shareholders included a $12.7 billion net income tax benefit as a result of the impacts of the 2017 tax reform legislation. Refer to Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 5 to Comcast's consolidated financial statements for further discussion.

NBCUniversal

Omitted pursuant to General Instruction I(2)(a) to Form 10-K.

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

Introduction

Management's discussion and analysis of financial condition and results of operations is provided as a supplement to and should be read in conjunction with the consolidated financial statements and related notes to enhance the understanding of our operations and our present business environment. Components of the management's discussion and analysis of financial condition and results of operations section include:

- Overview
- Results of Operations
- Non-GAAP Financial Measure
- Liquidity and Capital Resources
- Contractual Obligations
- Off-Balance Sheet Arrangements
- Recent Accounting Pronouncements
- Critical Accounting Judgments and Estimates

Overview

We are a global media and technology company with three primary businesses: Comcast Cable, NBCUniversal and Sky. We present our operations for (1) Comcast Cable in one reportable business segment, referred to as Cable Communications; (2) NBCUniversal in four reportable business segments: Cable Networks, Broadcast Television, Filmed Entertainment and Theme Parks (collectively, the "NBCUniversal segments"); and (3) Sky in one reportable business segment. In the fourth quarter of 2018, we acquired a 100% interest in Sky through a series of transactions, and Sky's results of operations for the period October 9, 2018 to December 31, 2018 are included in our consolidated results of operations. For more information about our company's operations, see Item 1: Business.

We adopted the updated accounting guidance related to revenue recognition on January 1, 2018 on a full retrospective basis, which required us to reflect the impact of the updated guidance for all periods presented (see Note 9 to Comcast's consolidated financial statements and Note 8 to NBCUniversal's consolidated financial statements).

Consolidated Revenue, Net Income Attributable to Comcast Corporation and Adjusted EBITDA[a]

(in billions)

(a) Adjusted EBITDA is a financial measure that is not defined by generally accepted accounting principles in the United States ("GAAP"). Refer to the "Non-GAAP Financial Measure" section on page 54 for additional information, including our definition and our use of Adjusted EBITDA, and for a reconciliation from net income attributable to Comcast Corporation to Adjusted EBITDA.

2018 Developments

The following are the more significant developments in our businesses during 2018:

Cable Communications Segment

- An increase in revenue of 3.9% to $55.1 billion was primarily driven by increases in high-speed internet, business services and advertising revenue, partially offset by a decline in video and voice revenue
- An increase in Adjusted EBITDA of 6.5% to $22.4 billion
- An increase in operating margin from 39.7% to 40.7% that reflects increases in revenue from high-speed internet and business services, partially offset by higher programming expenses
- A decrease in capital expenditures of 3.0% to $7.7 billion that reflects:
  - decreased spending on customer premise equipment and support capital
  - an increase in investments in scalable infrastructure to increase network capacity
  - an increase in investments in line extensions, primarily for the expansion of our business services

NBCUniversal Segments

- An increase in total NBCUniversal revenue of 8.9% to $35.8 billion and an increase in total NBCUniversal Adjusted EBITDA of 4.6% to $8.6 billion, including the impact of our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl
- An increase in Cable Networks and Broadcast Television segments revenue of 12.2% and 19.6%, respectively, including the impact of our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl; excluding revenue associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl, revenue in our Cable Networks and Broadcast Television segments increased 8.6% and 7.1%, respectively, primarily due to increases in distribution revenue
- A decrease in Filmed Entertainment segment revenue of 5.8% reflecting lower home entertainment, theatrical, other and content licensing revenue
- An increase in Theme Parks segment revenue of 4.4% reflecting higher guest spending, driven by increased ticket prices and merchandise, food and beverage spend, partially offset by the impact of inclement weather conditions and natural disasters in Japan

Sky Segment

- We acquired Sky in the fourth quarter of 2018 through a series of transactions with total cash consideration of £30.2 billion (approximately $39.4 billion using the exchange rates on the purchase dates)
- For the period October 9, 2018 to December 31, 2018, Sky's total revenue was $4.6 billion and Adjusted EBITDA was $692 million

Corporate and Other

- An increase in Corporate and Other revenue of 17.5% to $1.4 billion primarily due to revenue associated with our wireless phone service
- An increase in Adjusted EBITDA losses of 12.6% to $1.5 billion primarily due to losses associated with our wireless phone service of $743 million
- Cash capital contributions to Atairos totaling $282 million; as of December 31, 2018, our total investment in Atairos is $2.7 billion
- An effective tax rate of 22.2% and a reduction in income tax payments of $824 million primarily due to federal income tax overpayments related to the 2017 tax year that were applied to reduce tax payments in the current year, as well as a reduction in the federal income tax rate from 35% to 21%, effective January 1, 2018

Competition

The results of operations of our reportable business segments are affected by competition, as all of our businesses operate in intensely competitive, consumer-driven and rapidly changing environments and compete with a growing number of companies that provide a broad range of communications products and services, and entertainment, news and information products and services to consumers. Technological changes are further intensifying and complicating the competitive landscape and challenging existing business models. In particular, consumers are increasingly turning to online sources for viewing and purchasing content, which has and likely will continue to reduce the number of our video customers and subscribers to our cable networks even as it makes our high-speed internet services more valuable to consumers. In addition, the increasing number of entertainment choices available has intensified audience fragmentation, which has and likely will continue to adversely affect the audience ratings of our cable networks and broadcast television programming.

For additional information on the competition our businesses face, see Item 1: Business and Item 1A: Risk Factors. Within the Business section, refer to the "Competition" discussion, and within the Risk Factors section, refer to the risk factors entitled "Our businesses currently face a wide range of competition, and our businesses and results of operations could be adversely affected if we do not compete effectively" and "Changes in consumer behavior driven by online video distribution platforms for viewing content could adversely affect our businesses and challenge existing business models."

Seasonality and Cyclicality

Each of our businesses is subject to seasonal and cyclical variations. See Item 1: Business and refer to the "Seasonality and Cyclicality" discussion within that section for additional information.

Consolidated Operating Results

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue	**$ 94,507**	$ 85,029	$ 80,736	**11.1 %**	5.3 %
Costs and Expenses:					
Programming and production	**29,692**	25,355	24,348	**17.1**	4.1
Other operating and administrative	**28,094**	25,449	23,840	**10.4**	6.7
Advertising, marketing and promotion	**7,036**	6,519	6,291	**7.9**	3.6
Depreciation	**8,281**	7,914	7,464	**4.6**	6.0
Amortization	**2,736**	2,216	1,962	**23.5**	12.9
Other operating gains	**(341)**	(442)	—	**NM**	NM
Operating income	**19,009**	18,018	16,831	**5.5**	7.1
Interest expense	**(3,542)**	(3,086)	(2,942)	**14.8**	4.9
Investment and other income (loss), net	**(225)**	421	437	**(153.4)**	(3.5)
Income before income taxes	**15,242**	15,353	14,326	**(0.7)**	7.2
Income tax (expense) benefit	**(3,380)**	7,569	(5,298)	**(144.7)**	NM
Net income	**11,862**	22,922	9,028	**(48.2)**	153.9
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	**131**	187	350	**(29.8)**	(46.5)
Net income attributable to Comcast Corporation	**$ 11,731**	$ 22,735	$ 8,678	**(48.4)%**	162.0 %
Adjusted EBITDA[(a)]	**$ 30,165**	$ 27,956	$ 26,257	**7.9 %**	6.5 %

All percentages are calculated based on actual amounts. Minor differences may exist due to rounding.
Percentage changes that are considered not meaningful are denoted with NM.

(a) Adjusted EBITDA is a non-GAAP financial measure. Refer to the "Non-GAAP Financial Measure" section on page 54 for additional information, including our definition and our use of Adjusted EBITDA, and for a reconciliation from net income attributable to Comcast Corporation to Adjusted EBITDA.

Consolidated Revenue

The following graph illustrates the contributions to the increases in consolidated revenue made by our Cable Communications, NBCUniversal and Sky segments, as well as by Corporate and Other activities including eliminations.

The primary drivers of the changes in revenue were as follows:

2018

- Growth in our Cable Communications segment driven by revenue from residential high-speed internet, business services and advertising
- Our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl generated $1.6 billion of revenue, which was reported in our Cable Networks and Broadcast Television segments
- Sky contributed $4.6 billion of revenue from October 9, 2018 to December 31, 2018

2017

- Growth in our Cable Communications segment driven by revenue from residential high-speed internet and video services and business services
- Growth in our NBCUniversal segments driven by Filmed Entertainment and Theme Parks, partially offset by revenue in 2016 associated with our broadcast of the 2016 Rio Olympics

Revenue for our segments is discussed separately below under the heading “Segment Operating Results.” Revenue for our business development initiatives and other businesses is discussed separately under the heading “Corporate and Other Results of Operations.”

Consolidated Costs and Expenses

The following graph illustrates the contributions to the increases in consolidated operating costs and expenses, representing total costs and expenses excluding depreciation and amortization expense and other operating gains, made by our Cable Communications, NBCUniversal and Sky segments, as well as by Corporate and Other activities including eliminations.

The primary drivers of the changes in operating costs and expenses were as follows:

2018

- Increase in programming expenses in our Cable Communications segment
- Increase in programming and production expenses in our NBCUniversal segments due to our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl
- Operating costs and expenses for Sky for the period October 9, 2018 to December 31, 2018 were $3.9 billion
- Increase in Corporate and Other activities driven by our wireless phone service

2017

- Increase in programming expenses in our Cable Communications segment
- Increase in programming and production expenses in our Filmed Entertainment segment, partially offset by expenses in 2016 associated with our broadcast of the 2016 Rio Olympics
- Increase in Corporate and Other activities driven by the launch of our wireless phone service

Operating costs and expenses for our segments is discussed separately below under the heading “Segment Operating Results.” Operating costs and expenses for our corporate operations, business development initiatives and other businesses is discussed separately below under the heading “Corporate and Other Results of Operations.”

Consolidated Depreciation and Amortization Expense

Year ended December 31 (in millions)	**2018**	2017	2016	**% Change 2017 to 2018**	% Change 2016 to 2017
Cable Communications	**$ 8,264**	$ 8,006	$ 7,538	**3.2%**	6.2 %
NBCUniversal	**2,108**	2,041	1,805	**3.3**	13.1
Sky	**539**	—	—	**NM**	NM
Corporate and Other	**106**	83	83	**26.9**	(0.5)
Comcast Consolidated	**$ 11,017**	$ 10,130	$ 9,426	**8.8%**	7.5 %

Consolidated depreciation and amortization expense increased in 2018 and 2017 primarily due to the acquisition of Sky in the current year period and increases in capital expenditures, as well as expenditures for software, in our Cable Communications segment in recent years. Capital expenditures increased in our Cable Communications segment as we continue to invest in network capacity and in customer premise equipment, primarily for our X1 platform, cloud DVR technology and wireless gateways. Certain assets in our Cable Communications segment have relatively short estimated useful lives, which also contributed to the increase in depreciation expense in 2018 and 2017 and will continue to increase depreciation expense in 2019. NBCUniversal depreciation and amortization expense also increased primarily due to our continued investment in new attractions in our Theme Parks segment,

including for Universal Studios Japan. Sky depreciation and amortization expense is related primarily to property and equipment and customer relationship intangible assets.

Amortization expense from acquisition-related intangible assets, such as customer relationships, totaled $1.1 billion, $824 million and $790 million for 2018, 2017 and 2016, respectively. Amounts primarily relate to customer relationship intangible assets recorded in connection with the NBCUniversal transaction in 2011, and 2018 included $267 million related to our preliminary estimates of Sky customer relationship intangible assets for the period October 9, 2018 to December 31, 2018. Amounts related to Sky are estimates and subject to change as we finalize acquisition accounting (see Note 8 to Comcast's consolidated financial statements for additional information).

Consolidated Other Operating Gains

Consolidated other operating gains for 2018 included $200 million related to the sale of a controlling interest in our arena management-related businesses in Corporate and other and $141 million related to the sale of a business in our Filmed Entertainment segment (see Note 10 to Comcast's consolidated financial statements). Consolidated other operating gains for 2017 included $337 million related to NBCUniversal's relinquishment of spectrum rights (see Note 8 to Comcast's consolidated financial statements and Note 7 to NBCUniversal's consolidated financial statements) and $105 million related to the sale of a business in Corporate and other (see Note 10 to Comcast's consolidated financial statements).

Consolidated Interest Expense

Interest expense increased in 2018 primarily due to higher levels of debt outstanding and financing costs resulting from the Sky transaction. Interest expense increased in 2017 primarily due to higher levels of debt outstanding.

Consolidated Investment and Other Income (Loss), Net

Year ended December 31 (in millions)		**2018**		2017		2016
Equity in net income (losses) of investees, net	**$**	**(364)**	$	107	$	(104)
Realized and unrealized gains (losses) on equity securities, net		**(187)**		(17)		12
Other income (loss), net		**326**		331		529
Total investment and other income (loss), net	**$**	**(225)**	$	421	$	437

Equity in Net Income (Losses) of Investees, Net

The changes in equity in net income (losses) of investees, net in 2018 and 2017 were primarily due to our equity method investments in Atairos Group, Inc. and Hulu, LLC. Atairos, which commenced operations in 2016, follows investment company accounting and records its investments at their fair values each reporting period with the net gains or losses reflected in its statement of income. We recognize our share of these gains and losses in equity in net income (losses) of investees, net. The losses at Hulu were driven by its higher programming, advertising and marketing costs, and higher other administrative expenses. The table below summarizes the equity in net income (losses) of Atairos and Hulu in 2018, 2017 and 2016.

Year ended December 31 (in millions)		**2018**		2017		2016
Atairos	**$**	**(31)**	$	281	$	(38)
Hulu	**$**	**(454)**	$	(276)	$	(168)

Realized and Unrealized Gains (Losses) on Equity Securities, Net

The change in realized and unrealized gains (losses) on equity securities, net for 2018 compared to 2017 was primarily due to the adoption of updated accounting guidance for our marketable equity securities, which primarily relates to our investment in Snap (see Note 10 to Comcast's consolidated financial statements and Note 9 to NBCUniversal's consolidated financial statements).

Other Income (Loss), Net

Other income (loss), net for 2018 and 2017 primarily included interest and dividend income.

Other income (loss), net for 2016 included $225 million recognized in connection with the settlement of amounts owed to us under an agency agreement that had provided for, among other things, Verizon Wireless' sale of our cable services and $108 million related to the sale of our investment in The Weather Channel's product and technology business to IBM.

Consolidated Income Tax (Expense) Benefit

Income tax (expense) benefit reflects an effective income tax rate that differs from the federal statutory rate primarily due to state and foreign income taxes and adjustments associated with uncertain tax positions. Our effective income tax rate in 2018 was 22.2%, which included the effects of the 2017 Tax Act and also an income tax benefit of $128 million recognized during the first quarter of 2018 related to the enactment of additional federal tax legislation in 2018, which were partially offset by higher taxable income from operations and $148 million of income tax expense due to state and federal tax law changes that were enacted in the third quarter of 2018. The 2017 Tax Act, among other things, reduced the federal corporate income tax rate to 21% from 35%, effective January 1, 2018. We recognized an income tax benefit of $244 million during the fourth quarter of 2018 related to a reduction of our net deferred tax liability as a result of the acquisition of Sky. See Note 5 to Comcast's consolidated financial statements for further discussion on tax reform.

Our effective income tax rate in 2017 was a benefit of 49.3%. The enactment of the 2017 Tax Act resulted in a net income tax benefit of $12.7 billion in 2017, primarily related to a reduction of our net deferred tax liability. Excluding this tax benefit, our effective income tax rate in 2017 would have been an expense of 33.3%.

Additionally, in 2017, we prospectively adopted certain provisions of the new accounting guidance related to share-based compensation, which resulted in an increase in income tax benefit of $297 million in 2017. Our income tax benefit also increased $121 million due to the impact of an internal legal reorganization in the third quarter of 2017, which was partially offset by a decrease of $53 million due to changes in state tax laws. Our effective income tax rate in 2016 was an expense of 37.0%.

Consolidated Net Income Attributable to Noncontrolling Interests and Redeemable Subsidiary Preferred Stock

The decrease in net income attributable to noncontrolling interests and redeemable subsidiary preferred stock in 2018 was primarily due to the noncontrolling interest holders' share of the loss related to Universal Beijing Resort. In 2018, we entered into an agreement with a consortium of Chinese state-owned companies to build and operate a Universal theme park and resort in Beijing, China and obtained a 30% interest in Universal Beijing Resort. See Note 8 to Comcast's consolidated financial statements for further discussion on noncontrolling interest related to Universal Beijing Resort. The decrease in net income attributable to noncontrolling interests and redeemable subsidiary preferred stock in 2017 was primarily due to our acquisition of the remaining interests in Universal Studios Japan that we did not already own in April 2017.

Segment Operating Results

Our segment operating results are presented based on how we assess operating performance and internally report financial information. We use Adjusted EBITDA as the measure of profit or loss for our operating segments. Adjusted EBITDA is defined as net income attributable to Comcast Corporation before net income (loss) attributable to noncontrolling interests and redeemable subsidiary preferred stock, income tax benefit (expense), investment and other income (loss), net, interest expense, depreciation and amortization expense, and other operating gains and losses (such as impairment charges related to fixed and intangible assets and gains or losses on the sale of long-lived assets), if any. From time to time we may exclude from Adjusted EBITDA the impact of certain events, gains, losses or other charges (such as significant legal settlements) that affect the period-to-period comparability of our operating performance. Adjusted EBITDA for our segments is not a non-GAAP financial measure. We reconcile the aggregate amount of Adjusted EBITDA for our reportable business segments to consolidated income before income taxes in the notes to our consolidated financial statements (see Note 2 to Comcast's consolidated financial statements and NBCUniversal's consolidated financial statements).

To be consistent with our current management reporting presentation, certain 2017 and 2016 operating results were reclassified within the Cable Communications segment and certain 2018, 2017 and 2016 operating results were reclassified related to certain NBCUniversal businesses now presented in the Sky segment.

Cable Communications Segment Results of Operations

Revenue and Adjusted EBITDA

(in billions)

Residential Customer Relationships

(in millions)

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue					
Residential:					
High-speed internet	**$ 17,144**	$ 15,681	$ 14,421	**9.3 %**	8.7 %
Video	**22,455**	22,874	22,204	**(1.8)**	3.0
Voice	**3,960**	4,090	4,159	**(3.2)**	(1.7)
Business services	**7,129**	6,437	5,705	**10.7**	12.8
Advertising	**2,795**	2,450	2,626	**14.1**	(6.7)
Other	**1,660**	1,538	1,462	**7.9**	5.2
Total revenue	**55,143**	53,070	50,577	**3.9**	4.9
Operating costs and expenses					
Programming	**13,249**	12,907	11,576	**2.7**	11.5
Technical and product support	**6,530**	6,293	6,207	**3.8**	1.4
Customer service	**2,386**	2,448	2,481	**(2.6)**	(1.3)
Advertising, marketing and promotion	**3,747**	3,711	3,674	**1.0**	1.0
Franchise and other regulatory fees	**1,566**	1,589	1,550	**(1.5)**	2.5
Other	**5,218**	5,054	5,075	**3.2**	(0.4)
Total operating costs and expenses	**32,696**	32,002	30,563	**2.2**	4.7
Adjusted EBITDA	**$ 22,447**	$ 21,068	$ 20,014	**6.5 %**	5.3 %

Customer Metrics

(in thousands, except per customer amounts)	Total Customers 2018	Total Customers 2017	Total Customers 2016	Net Additional Customers 2018	Net Additional Customers 2017	Net Additional Customers 2016
Customer relationships						
Residential customer relationships	**28,046**	27,168	26,533	**878**	635	705
Business services customer relationships	**2,303**	2,179	2,044	**123**	135	157
Total customer relationships	**30,349**	29,347	28,577	**1,002**	770	862
Average monthly total revenue per customer relationship	**$ 153.95**	$ 152.70	$ 149.75			
Average monthly Adjusted EBITDA per customer relationship	**$ 62.67**	$ 60.62	$ 59.26			
Residential customer relationships mix						
Single product customers	**9,074**	8,196	7,756	**878**	439	110
Double product customers	**9,092**	9,056	8,797	**36**	259	319
Triple and quad product customers	**9,880**	9,916	9,980	**(36)**	(64)	277
High-speed internet						
Residential customers	**25,097**	23,863	22,827	**1,234**	1,036	1,218
Business services customers	**2,125**	2,006	1,874	**120**	132	155
Total high-speed internet customers	**27,222**	25,869	24,701	**1,353**	1,168	1,373
Video						
Residential customers	**20,959**	21,303	21,488	**(344)**	(186)	103
Business services customers	**1,027**	1,054	1,019	**(27)**	35	57
Total video customers	**21,986**	22,357	22,508	**(370)**	(151)	161
Voice						
Residential customers	**10,153**	10,316	10,546	**(163)**	(231)	110
Business services customers	**1,297**	1,236	1,140	**60**	96	101
Total voice customers	**11,449**	11,552	11,687	**(103)**	(135)	211
Security and automation						
Security and automation customers	**1,317**	1,131	891	**186**	239	279

Customer metrics are presented based on actual amounts. Minor differences may exist due to rounding. For multiple dwelling units ("MDUs"), including buildings located on college campuses, whose residents have the ability to receive additional cable services, such as additional programming choices or our high-definition video ("HD") or digital video recorder ("DVR") advanced services, we count and report customers based on the number of potential billable relationships within each MDU. For MDUs whose residents are not able to receive additional cable services, the MDU is counted as a single customer. In 2017, we began to offer prepaid services that allow customers to prepay for at least 30 days of service. Residential high-speed internet and video customers as of December 31, 2018 included prepaid customers totaling approximately 135,000 and 5,000, respectively. Customer relationships represent the number of residential and business customers that subscribe to at least one of our cable services. Single product, double product, and triple and quad product customers represent residential customers that subscribe to one, two, or three and four of our cable services, respectively.

Average monthly total revenue per customer relationship for 2018 and 2017 was $153.95 and $152.70, respectively. This metric is impacted by rate adjustments and changes in the types and levels of services received by our residential and business services customers, as well as changes in advertising revenue. While revenue from our residential high-speed internet, video and voice services are also impacted by changes in the allocation of revenue among services sold in a bundle, the allocation does not impact average monthly total revenue per customer relationship.

Average monthly Adjusted EBITDA per customer relationship for 2018 and 2017 was $62.67 and $60.62, respectively. Each of our cable services has a different contribution to operating margin. We use average monthly Adjusted EBITDA per customer relationship to evaluate the profitability of our customer base across our service offerings. We believe this metric is useful particularly as we continue to focus on growing our higher-margin businesses, including residential high-speed internet and business services.

Cable Communications Segment – Revenue

Cable Communications is one of the nation's largest providers of high-speed internet, video, voice and security and automation services ("cable services") to residential customers under the Xfinity brand; we also provide these and other services to business customers and sell advertising. Our Cable Communications segment generates revenue primarily from residential and business customers that subscribe to our cable services, which we market individually and as bundled services. Our Cable Communications segment also generates revenue from selling through our allocation of scheduled advertising time on cable networks that is received as part of distribution agreements with these networks to local, regional and national advertisers.

High-Speed Internet

Cable Communications offers high-speed internet services with downstream speeds that range up to 1 gigabit per second ("Gbps") and fiber-based speeds that range up to 2 Gbps. We are also deploying wireless gateways to improve the performance of multiple IP-enabled devices used at the same time within the home, provide faster internet speeds and create an in-home Wi-Fi network. Customers with xFi-enabled wireless gateways may personalize and manage their Wi-Fi network remotely, which includes viewing and changing their Wi-Fi password, identifying which devices are connected to their in-home network, setting parental controls and schedules, as well as other features. We believe our customer base will continue to grow as consumers choose our high-speed internet service and seek higher-speed offerings.

High-speed internet revenue increased 9.3% and 8.7% in 2018 and 2017, respectively, primarily due to:

- Increase in the number of residential customers receiving our high-speed internet services, which accounted for 4.9% and 5.1% in 2018 and 2017, respectively
- Increase in average high-speed internet rates

Video

Cable Communications offers a broad variety of video services packages that may include premium networks, pay-per-view services and our On Demand service. Our video customers may also subscribe for additional fees to our HD and DVR advanced services.

Video revenue decreased 1.8% in 2018 primarily due to:

- Decline in the number of residential video customers
- To a lesser extent, changes in average video rates

Video revenue increased 3.0% in 2017 primarily due to:

- Increase in average video rates
- Decline in the number of residential video customers

As of December 31, 2018, 15.5 million customers subscribed to at least one of our HD or DVR advanced services compared to 15.0 million customers and 14.8 million customers as of December 31, 2017 and 2016, respectively.

We have experienced, and expect that we will continue to experience, declines in the number of residential video customers due to competitive pressures, and we expect that our video revenue will continue to decline. Competition is intense, both from traditional multichannel video providers and online video distribution services. We believe our X1 platform helps us compete more effectively against this competition, and have also continued to employ sales and marketing programs, such as promotions, bundled service offerings and service offerings targeted at specific market segments.

Voice

Cable Communications offers voice services that provide local and long-distance calling and other related features.

Voice revenue decreased 3.2% in 2018 primarily due to:

- Decline in the number of residential voice customers
- Decrease due to the amount allocated to voice revenue for bundled services

Voice revenue decreased 1.7% in 2017 primarily due to:

- Decrease due to the amount allocated to voice revenue for bundled services
- Decline in the number of residential voice customers

We expect that the number of residential voice customers and voice revenue will continue to decline.

Business Services

Cable Communications offers a variety of products and services to businesses. Small business services offerings primarily include high-speed internet services, as well as voice and video services. Cable Communications also offers Ethernet network services to medium-sized customers and larger enterprises, as well as advanced voice services, along with video solutions that serve hotels and other large venues. In addition, cellular backhaul services are provided to mobile network operators to help them manage their network bandwidth.

Cable Communications has expanded its enterprise service offerings to include a software-defined networking product for our medium-sized and enterprise customers. Enterprise customers may also receive support services related to Wi-Fi networks, router management, network security, business continuity risks and other services. Enterprise service offerings are primarily provided to Fortune 1000 companies and other large enterprises with multiple locations.

Business services revenue increased 10.7% and 12.8% in 2018 and 2017, respectively, primarily due to:

- Increase in the number of customers receiving our small and medium-sized business services offerings
- Increase in average rates

In 2018, 2017 and 2016, revenue from our small business services offerings represented the majority of our total business services revenue. We believe the increases in the number of business customers are primarily the result of our efforts to gain market share from competitors by offering competitive services and pricing. We expect that the contribution to our growth rate from medium-sized and enterprise customers will increase relative to that of our small-business customers as small business service matures.

Advertising

As part of Cable Communications' distribution agreements with cable networks, it generally receives an allocation of scheduled advertising time that is sold through its advertising business to local, regional and national advertisers. In most cases, the available advertising units are sold by our sales force. In some cases, it works with representation firms as an extension of its sales force to sell a portion of the advertising units allocated to it. Cable Communications also represents the advertising sales efforts of other multichannel video providers in some markets. In addition, it generates revenue from the sale of advertising on its digital platforms. It also provides technology, tools, data-driven services and marketplace solutions to customers in the media industry, which allow advertisers to more effectively engage with their target audiences. Advertising revenue is affected by the strength of the advertising market, general economic conditions, and cyclicality related to political campaigns and issue-oriented advertising.

Advertising revenue increased 14.1% in 2018 primarily due to an increase in political advertising revenue. Advertising revenue decreased 6.7% in 2017 primarily due to a decrease in political advertising revenue. Excluding the impact of political advertising revenue, advertising increased 1.7% and 0.3% in 2018 and 2017, respectively.

In 2018, 4% of our Cable Communications segment advertising revenue was generated from our NBCUniversal segments, compared to 5% in both 2017 and 2016. These amounts are eliminated in our consolidated financial statements but are included in the amounts presented above.

Other

Other revenue primarily includes revenue related to residential customer late fees. We also receive revenue related to fees from other services, such as our security and automation services.

Other revenue increased 7.9% and 5.2% in 2018 and 2017, respectively, primarily due to:

- Increase in revenue related to the licensing of our X1 platform to other multichannel video providers
- Increase in revenue from our security and automation services

Cable Communications Segment – Operating Costs and Expenses

Programming Expenses

Programming expenses, which represent our most significant operating expense, are the fees we incur to provide content to our video customers. These expenses are affected by the programming license fees charged by cable networks, the fees charged for retransmission of the signals from local broadcast television stations, the number of video customers we serve and the amount of content we provide.

Programming expenses increased in 2018 and 2017 primarily due to:

- Increase in programming license fees, including retransmission consent fees and sports programming costs
- Increase in 2017 due to the timing of contract renewals

We anticipate that our programming expenses will continue to increase, which may be at rates higher than those experienced recently, due to the timing of contract renewals in the future.

Technical and Product Support Expenses

Technical and product support expenses include costs to complete service call and installation activities, as well as costs for network operations, product development, fulfillment and provisioning.

Technical and product support expenses increased in 2018 and 2017 primarily due to:

- Increased expenses related to the continued development, deployment and support of our X1 platform, cloud DVR technology and wireless gateways
- Increased expenses related to the continued growth in business services and security and automation services

Customer Service Expenses

Customer service expenses include the personnel and other costs associated with handling the sale of services to customers and customer service activity.

Customer service expenses decreased in 2018 primarily due to lower personnel costs as a result of reduced call volumes.

Customer service expenses decreased slightly in 2017 primarily due to reduced call volume, which were partially offset by increased personnel costs.

Advertising, Marketing and Promotion Expenses

Advertising, marketing and promotion expenses include the costs associated with attracting new customers and promoting our service offerings.

Advertising, marketing and promotion expenses were relatively flat in 2018 and 2017.

Franchise and Other Regulatory Fees

Cable franchise and other regulatory fees represent the fees we are required to pay to federal, state and local authorities under the terms of our cable franchise agreements. Franchise and other regulatory fees decreased in 2018 primarily due to a decrease in the revenue to which the fees apply. Franchise and other regulatory fees increased in 2017 primarily due to an increase in the revenue to which the fees apply.

Other Operating Costs and Expenses

Other operating costs and expenses increased in 2018 due to an increase in costs to support our advertising sales business. Other operating costs and expenses remained relatively flat in 2017.

Cable Communications Segment – Operating Margin

Our Cable Communications segment operating margin is Adjusted EBITDA as a percentage of revenue. The most significant operating costs and expenses for our Cable Communications segment are the programming expenses we incur to provide content to our video customers, which increased 2.7% and 11.5% in 2018 and 2017, respectively. We will continue to focus on growing our higher-margin businesses, particularly residential high-speed internet and business services, and on overall operating cost management.

Our Cable Communications segment operating margin was 40.7%, 39.7% and 39.6% in 2018, 2017 and 2016, respectively.

NBCUniversal Segments Overview

2018 NBCUniversal Segments Operating Results[a]

(a) Charts exclude the results of NBCUniversal Headquarters, Other, and eliminations.

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue					
Cable Networks	**$ 11,773**	$ 10,497	$ 10,324	**12.2 %**	1.7 %
Broadcast Television	**11,439**	9,563	10,085	**19.6**	(5.2)
Filmed Entertainment	**7,152**	7,595	6,229	**(5.8)**	21.9
Theme Parks	**5,683**	5,443	4,946	**4.4**	10.0
Headquarters, other and eliminations	**(286)**	(262)	(308)	**NM**	NM
Total revenue	**$ 35,761**	$ 32,836	$ 31,276	**8.9 %**	5.0 %
Adjusted EBITDA					
Cable Networks	**$ 4,428**	$ 4,053	$ 3,681	**9.3 %**	10.1 %
Broadcast Television	**1,657**	1,251	1,293	**32.5**	(3.3)
Filmed Entertainment	**734**	1,276	662	**(42.5)**	92.6
Theme Parks	**2,455**	2,384	2,190	**3.0**	8.9
Headquarters, other and eliminations	**(676)**	(746)	(688)	**NM**	NM
Total Adjusted EBITDA	**$ 8,598**	$ 8,218	$ 7,138	**4.6 %**	15.1 %

Cable Networks Segment Results of Operations

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue					
Distribution	**$ 6,826**	$ 6,081	$ 5,978	**12.3%**	1.7 %
Advertising	**3,587**	3,359	3,530	**6.8**	(4.9)
Content licensing and other	**1,360**	1,057	816	**28.6**	29.6
Total revenue	**11,773**	10,497	10,324	**12.2**	1.7
Operating costs and expenses					
Programming and production	**5,357**	4,599	4,863	**16.5**	(5.4)
Other operating and administrative	**1,453**	1,326	1,279	**9.5**	3.7
Advertising, marketing and promotion	**535**	519	501	**3.2**	3.6
Total operating costs and expenses	**7,345**	6,444	6,643	**14.0**	(3.0)
Adjusted EBITDA	**$ 4,428**	$ 4,053	$ 3,681	**9.3%**	10.1 %

Cable Networks Segment – Revenue

Distribution

Distribution revenue is generated from the distribution of our cable network programming to traditional and virtual multichannel video providers and is affected by the number of subscribers receiving our cable networks and the fees we charge per subscriber.

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Distribution	**$ 6,826**	$ 6,081	$ 5,978	**12.3%**	1.7%
Distribution, excluding 2018 PyeongChang Olympics and 2016 Rio Olympics	***6,590***	*6,081*	*5,680*	***8.4***	*7.1*

Distribution revenue increased in 2018 primarily due to:

- Increase in revenue associated with our broadcast of the 2018 PyeongChang Olympics
- Increases in the contractual rates charged under distribution agreements
- Increases due to timing of contract renewals
- Decrease due to continued decline in the number of subscribers at our cable networks

Distribution revenue increased in 2017 primarily due to:

- Increases in the contractual rates charged under distribution agreements
- Increases due to timing of contract renewals

- Decrease due to absence of revenue associated with our broadcast of the 2016 Rio Olympics
- Decrease due to continued decline in the number of subscribers at our cable networks

Advertising

Advertising revenue is generated from the sale of advertising units sold on our cable networks and digital properties. Advertising revenue is primarily based on the price we charge for each advertising unit, which is generally based on audience ratings, the value of our viewer demographics to advertisers and the number of advertising units we can place in our cable networks' programming schedules. Advertising revenue is affected by the audience ratings of our programming, the strength of the national advertising market and general economic conditions.

Year ended December 31 (in millions)	**2018**	2017	2016	**% Change 2017 to 2018**	% Change 2016 to 2017
Advertising	**$ 3,587**	$ 3,359	$ 3,530	**6.8%**	(4.9)%
Advertising, excluding 2018 PyeongChang Olympics and 2016 Rio Olympics	***3,445***	*3,359*	*3,396*	***2.6***	*(1.1)*

Advertising revenue increased in 2018 primarily due to:

- Increase in revenue associated with our broadcast of the 2018 PyeongChang Olympics
- Increase due to higher prices for advertising units sold
- Decrease due to the impact of continued declines in audience ratings at our networks

Advertising revenue decreased in 2017 primarily due to:

- Decrease in revenue due to the absence of our broadcast of the 2016 Rio Olympics
- Decrease due to the impact of continued declines in audience ratings at our networks
- Increase due to higher prices for advertising units sold

Content Licensing and Other

Content licensing and other revenue is generated primarily from the licensing of our owned programming in the United States and internationally to cable and broadcast networks and subscription video on demand services, as well as from the sale of our owned programming on DVDs and through digital distribution services such as iTunes. In addition, our cable television studio production operations generate revenue from programming the studio produces for third-party networks and for subscription video on demand services.

Content licensing and other revenue increased in 2018 and 2017 primarily due to the timing of content provided under our licensing agreements.

In 2018, 2017 and 2016, 14%, 15% and 15%, respectively, of our Cable Networks segment revenue was generated from our Cable Communications segment. These amounts are eliminated in Comcast's consolidated financial statements but are included in the amounts presented above.

Cable Networks Segment – Operating Costs and Expenses

Programming and Production Costs

Programming and production costs include the amortization of owned and acquired programming, sports rights, direct production costs, residual and participation payments, production overhead, costs associated with the distribution of our programming to third-party networks and other distribution platforms, and on-air talent costs.

Programming and production costs increased in 2018 primarily due to:

- Increase in costs associated with our broadcast of the 2018 PyeongChang Olympics
- Increase in costs related to our continued investment in original programming
- Increase in studio production costs
- Increase in other sports programming rights

Programming and production costs decreased in 2017 primarily due to:

- Decrease in costs due to the absence of our broadcast of the 2016 Rio Olympics

- Increase in other sports programming rights costs and higher studio production costs

Other Operating and Administrative Costs and Expenses

Other operating and administrative costs and expenses include salaries, employee benefits, rent and other overhead expenses.

These expenses increased in 2018 primarily due to:

- Increases in employee-related costs
- Increases in costs associated with our various digital properties

These expenses increased in 2017 primarily due to increases in employee-related costs.

Advertising, Marketing and Promotion Expenses

Advertising, marketing and promotion expenses consist primarily of the costs associated with promoting programming on our cable networks and digital properties.

Advertising, marketing and promotion expenses increased in 2018 primarily due to:

- Increases in spending related to the 2018 PyeongChang Olympics
- Increases in spending related to our digital properties

Advertising, marketing and promotion expenses increased in 2017 primarily due to increased spending on marketing related to programming on our cable networks and our new digital platforms.

Broadcast Television Segment Results of Operations

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue					
Advertising	**$ 7,010**	$ 5,654	$ 6,834	**24.0 %**	(17.3)%
Content licensing	**2,182**	2,114	1,837	**3.2**	15.1
Distribution and other	**2,247**	1,795	1,414	**25.2**	26.9
Total revenue	**11,439**	9,563	10,085	**19.6**	(5.2)
Operating costs and expenses					
Programming and production	**7,789**	6,440	6,949	**20.9**	(7.3)
Other operating and administrative	**1,547**	1,391	1,381	**11.1**	0.7
Advertising, marketing and promotion	**446**	481	462	**(7.3)**	4.2
Total operating costs and expenses	**9,782**	8,312	8,792	**17.7**	(5.5)
Adjusted EBITDA	**$ 1,657**	$ 1,251	$ 1,293	**32.5 %**	(3.3)%

Broadcast Television Segment – Revenue

Advertising

Advertising revenue is generated from the sale of advertising units sold on our broadcast networks, owned local broadcast television stations and digital properties. Advertising revenue is primarily based on the price we charge for each advertising unit, which is generally based on audience ratings and the value of our viewer demographics to advertisers, and the number of advertising units we can place in our broadcast networks' and owned local television stations' programming schedules. Advertising revenue is affected by the strength of the national and local advertising markets, general economic conditions, cyclicality related to political campaigns and issue-oriented advertising, and the success and ratings of our programming.

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Advertising	**$ 7,010**	$ 5,654	$ 6,834	**24.0%**	(17.3)%
Advertising, excluding 2018 PyeongChang Olympics, 2018 Super Bowl and 2016 Rio Olympics	***5,929***	*5,654*	*5,786*	***4.9***	*(2.3)*

Advertising revenue increased in 2018 primarily due to:

- Increase in revenue associated with our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl

- Increase due to higher prices for advertising units sold
- Decrease due to the impact of continued declines in audience ratings

Advertising revenue decreased in 2017 primarily due to:

- Decrease due to the absence of revenue associated with our broadcast of the 2016 Rio Olympics
- Decrease due to the impact of continued declines in audience ratings
- Increase due to higher prices for advertising units sold

Content Licensing

Content licensing revenue is generated from the licensing of our owned programming in the United States and internationally to various distribution platforms, including to cable and broadcast networks, and to subscription video on demand services. In addition, our broadcast television studio production operations develop and produce original content that they license to broadcast networks, cable networks and local broadcast television stations owned by us and third parties, as well as to subscription video on demand services. The production and distribution costs related to our owned programming generally exceed the revenue generated from the initial network license, which means the subsequent licensing of our owned programming series following the initial network license is critical to their financial success.

Content licensing revenue increased in 2018 and 2017 primarily due to the timing of content provided under our licensing agreements.

Distribution and Other

We generate distribution and other revenue primarily from fees for retransmission consent of our owned local broadcast television stations and associated fees received from NBC-affiliated local broadcast television stations, as well as from the sale of our owned programming on DVDs and through digital distribution services. The sale of our owned programming is driven primarily by the popularity of our broadcast networks and programming series and therefore fluctuates based on consumer spending and acceptance. Distribution and other revenue also includes distribution revenue associated with our periodic broadcasts of the Olympic Games.

Year ended December 31 (in millions)	**2018**	2017	2016	**% Change 2017 to 2018**	% Change 2016 to 2017
Distribution and other	**$ 2,247**	$ 1,795	$ 1,414	**25.2%**	26.9%
Distribution and other, excluding 2018 PyeongChang Olympics and 2016 Rio Olympics	***2,135***	*1,795*	*1,274*	***19.0***	*40.9*

Distribution and other revenue increased in 2018 primarily due to:

- Increases in fees recognized under our retransmission consent agreements
- Increase in revenue from our broadcast of the 2018 PyeongChang Olympics

Distribution and other revenue increased in 2017 primarily due to:

- Increase in fees recognized under our retransmission consent agreements
- Decrease due to the absence of revenue associated with our broadcast of the 2016 Rio Olympics

Broadcast Television Segment – Operating Costs and Expenses

Programming and Production Costs

Programming and production costs relate to content that originates on our broadcast networks and owned local broadcast television stations, as well as owned content that is licensed to third parties. These costs include the amortization of owned and acquired programming costs, sports rights, direct production costs, residual and participation payments, production overhead, costs associated with the distribution of our programming to third-party networks and other distribution platforms, and on-air talent costs.

Programming and production costs increased in 2018 primarily due to costs associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl.

Programming and production costs decreased in 2017 primarily due to:

- Decrease in costs due to the absence of our broadcast of the 2016 Rio Olympics

- Increase due to higher studio production costs, our continued investment in original programming and increases in other sports programming rights costs

Other Operating and Administrative Costs and Expenses

Other operating and administrative costs and expenses include salaries, employee benefits, rent and other overhead expenses, and these costs increased in 2018 primarily due to employee-related costs and overhead expenses. Other operating and administrative costs and expenses increased slightly in 2017.

Advertising, Marketing and Promotion Expenses

Advertising, marketing and promotion expenses consist primarily of the costs associated with promoting our owned and acquired television programming, as well as the marketing of DVDs and costs associated with our digital properties. These expenses decreased in 2018 primarily due to decreased spending on marketing related to our news and local programming. These expenses increased in 2017 primarily due to increased spending on marketing related to our entertainment and news programming.

Filmed Entertainment Segment Results of Operations

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue					
Theatrical	**$ 2,111**	$ 2,192	$ 1,560	**(3.7)%**	40.5 %
Content licensing	**2,899**	2,956	2,518	**(1.9)**	17.4
Home entertainment	**1,048**	1,287	1,182	**(18.6)**	9.0
Other	**1,094**	1,160	969	**(5.7)**	19.6
Total revenue	**7,152**	7,595	6,229	**(5.8)**	21.9
Operating costs and expenses					
Programming and production	**3,446**	3,500	2,881	**(1.5)**	21.5
Other operating and administrative	**1,189**	1,260	1,086	**(5.7)**	16.0
Advertising, marketing and promotion	**1,783**	1,559	1,600	**14.3**	(2.5)
Total operating costs and expenses	**6,418**	6,319	5,567	**1.6**	13.5
Adjusted EBITDA	**$ 734**	$ 1,276	$ 662	**(42.5)%**	92.6 %

Filmed Entertainment Segment – Revenue

Theatrical

Theatrical revenue is generated from the worldwide theatrical release of our produced and acquired films for exhibition in movie theaters and is significantly affected by the timing of each release and the number of films we distribute, as well as their acceptance by audiences. Theatrical revenue is also affected by the number of exhibition screens, ticket prices, the percentage of ticket sale retention by the exhibitors and the popularity of competing films at the time our films are released. The success of a film in movie theaters is a significant factor in determining the revenue a film is likely to generate in succeeding distribution platforms.

Theatrical revenue decreased in 2018 primarily due to the timing of releases and the strong performance of prior year releases, which were partially offset by successful releases in the current year. Theatrical revenue increased in 2017 primarily due to the strong performances of several releases in our 2017 film slate. The following key titles released in each respective fiscal year were contributors to the drivers of changes in revenue:

Worldwide Theatrical Releases		
2018	2017	2016
Jurassic World: Fallen Kingdom	*The Fate of the Furious*	*The Secret Life of Pets*
Dr. Seuss' The Grinch	*Despicable Me 3*	*Sing*
Mamma Mia! Here We Go Again	*Fifty Shades Darker*	
Fifty Shades Freed		

Content Licensing

Content licensing revenue is generated primarily from the licensing of our produced and acquired films to cable, broadcast and premium networks, and to subscription video on demand services.

Content licensing revenue decreased in 2018 primarily due to the timing of when content was made available under licensing agreements.

Content licensing revenue increased in 2017 primarily due to the timing of when content was made available under licensing agreements, including content from DreamWorks Animation.

Home Entertainment

Home entertainment revenue is generated from the sale of our produced and acquired films on DVDs to retail stores, rental kiosks and by mail services, and in digital formats. Home entertainment revenue is significantly affected by the timing and number of our releases and their acceptance by consumers. Release dates are determined by several factors, including the timing of the exhibition of a film in movie theaters, holiday periods and the timing of competitive releases. The overall DVD market continues to experience declines due to the maturation of the DVD format from increasing shifts in consumer behavior toward digital distribution services and subscription rental services, both of which generate less revenue per transaction than DVD sales, as well as due to piracy.

Home entertainment revenue decreased in 2018 primarily due to higher sales of 2017 releases in the prior year period, which were partially offset by sales of 2018 releases in the current year period. Home entertainment revenue increased in 2017 primarily due to strong sales of several 2017 releases. The following key titles released in each respective fiscal year were contributors to the drivers of changes in home entertainment revenue:

Home Entertainment Releases		
2018	2017	2016
Jurassic World: Fallen Kingdom	*Sing*	*Jason Bourne*
Fifty Shades Freed	*The Fate of the Furious*	*The Secret Life of Pets*
Mamma Mia! Here We Go Again	*Despicable Me 3*	

Other

We also generate revenue from Fandango, our movie ticketing and entertainment business, from the sale of consumer products, from the production and licensing of live stage plays, and from the distribution of filmed entertainment produced by third parties.

Other revenue decreased in 2018 primarily due to:

- Decrease due to the absence of revenue associated with the sale of a business in 2018
- Decrease in revenue from consumer products

Other revenue increased in 2017 primarily due to:

- Increase in revenue from consumer products, including from DreamWorks Animation
- Increase in revenue from Fandango

Filmed Entertainment Segment – Operating Costs and Expenses

Programming and Production Costs

Programming and production costs include the amortization of capitalized film production and acquisition costs, residual and participation payments, and distribution expenses. Residual payments represent amounts payable to individuals hired under collective bargaining agreements to work on productions and are calculated based on post-theatrical revenue. Participation payments are primarily based on film performance and represent contingent consideration payable to creative talent, to third parties that have entered into cofinancing agreements with us and to other parties involved in the production of a film. The costs associated with producing films have generally increased in recent years and may continue to increase in the future.

Programming and production costs decreased in 2018 due to:

- Decrease due to higher amortization of film production costs in 2017 compared to 2018

Programming and production costs increased in 2017 primarily due to:

- Increase due to higher amortization of film production costs for our 2017 releases
- Increase in costs due to the inclusion of costs associated with DreamWorks Animation

Other Operating and Administrative Costs and Expenses

Other operating and administrative costs and expenses include salaries, employee benefits, rent and other overhead expenses.

Other operating and administrative expenses decreased in 2018 primarily due to:

- Decrease in employee-related costs

- Decrease due to the absence of expenses associated with the sale of a business in 2018

Other operating and administrative expenses increased in 2017 primarily due to:

- Increase in employee-related costs
- Increase in costs due to the inclusion of a full year of expenses associated with DreamWorks Animation

Advertising, Marketing and Promotion Expenses

Advertising, marketing and promotion expenses consist primarily of expenses associated with advertising for our theatrical releases and the marketing of our films on DVDs and in digital formats. We incur significant marketing expenses before and throughout the release of a film in movie theaters. As a result, we typically incur losses on a film prior to and during the film's exhibition in movie theaters and may not realize profits, if any, until the film generates home entertainment and content licensing revenue. The costs associated with marketing films have generally increased in recent years and may continue to increase in the future.

Advertising, marketing and promotion expenses increased in 2018 primarily due to a higher number of releases in the current year period. Advertising, marketing and promotion expenses decreased in 2017 due to a higher number of releases in 2016 compared to 2017.

Theme Parks Segment Results of Operations

Year ended December 31 (in millions)		**2018**		2017		2016	**% Change 2017 to 2018**	% Change 2016 to 2017
Revenue	**$**	**5,683**	$	5,443	$	4,946	**4.4%**	10.0%
Operating costs and expenses		**3,228**		3,059		2,756	**5.5**	11.0
Adjusted EBITDA	**$**	**2,455**	$	2,384	$	2,190	**3.0%**	8.9%

Theme Parks Segment – Revenue

The Theme Parks segment generates revenue primarily from ticket sales and guest spending at Universal theme parks. Guest spending includes in-park spending on food, beverages and merchandise. Guest attendance at our theme parks and guest spending depend heavily on the general environment for travel and tourism, including consumer spending on travel and other recreational activities.

Theme Parks segment revenue increased in 2018 primarily due to:

- Increases in guest spending, driven by increased ticket prices and spending on merchandise, food and beverage
- Decrease due to the impact of inclement weather conditions and natural disasters in Japan

Theme Parks segment revenue increased in 2017 primarily due to:

- Increases in guest spending and higher guest attendance driven by the continued success of *The Wizarding World of Harry Potter*™ attraction in Hollywood, and the openings of *Minion Park*™ in Japan and *Volcano Bay*™ in Orlando

Theme Parks Segment – Operating Costs and Expenses

Our Theme Parks segment operating costs and expenses consist primarily of theme park operations, including repairs and maintenance and related administrative expenses; food, beverage and merchandise costs; labor costs; and sales and marketing costs.

Theme Parks segment operating costs and expenses increased in 2018 primarily due to higher operating costs related to newer attractions at our domestic theme parks.

Theme Parks segment operating costs and expenses increased in 2017 primarily due to:

- Increase in operating costs related to higher guest attendance and new attractions
- Increase in marketing costs associated with our domestic theme parks

NBCUniversal Headquarters, Other and Eliminations

Headquarters and Other operating costs and expenses incurred by our NBCUniversal businesses include overhead, personnel costs and costs associated with corporate initiatives. Operating costs and expenses decreased in 2018 primarily due to lower employee-related costs. Operating costs and expenses increased in 2017 primarily due to higher employee-related costs.

Sky Segment

In the fourth quarter of 2018, we acquired a 100% interest in Sky through a series of transactions. Sky is one of Europe's leading entertainment companies, which primarily includes a direct-to-consumer business, providing video, high-speed internet, voice and wireless phone services, and a content business, operating entertainment networks, the Sky News broadcast network and Sky Sports networks. Sky results for the period from October 9, 2018 to December 31, 2018 are included in our consolidated financial results as presented below. These results are not indicative of a full quarter of Sky's operations.

(in millions)	For the period October 9, 2018 to December 31, 2018
Revenue	
Direct-to-consumer	$ 3,632
Content	304
Advertising	651
Total revenue	**4,587**
Operating costs and expenses	
Programming and production	2,137
Direct network costs	399
Other	1,359
Total operating costs and expenses	3,895
Adjusted EBITDA	**$ 692**

Customer Metrics

(in thousands)	December 31, 2018
Total customer relationships	23,600

Sky Segment – Revenue

Direct-to-Consumer

Direct-to-consumer revenue is derived from subscription and transactional revenue from residential and business customers. Subscription revenue includes revenue from residential and business subscribers to video, high-speed internet, phone and wireless phone services, including OTT subscriptions and income from set-top boxes, wireless phone handset and tablet sales, installation, service calls and warranties. Transactional revenue includes the purchase of physical and digital content, OTT daily, weekly and monthly passes, and pay-per-view programming.

Content

Content revenue is derived from the distribution of Sky's owned television channels on third-party platforms and the licensing of owned programming to third-party video providers.

Advertising

Advertising revenue is derived from the sale of advertising and sponsorships across Sky's owned television channels and where it represents the sales efforts of third-party channels.

Sky Segment – Operating Costs and Expenses

Programming and Production Costs

Programming and production costs primarily relate to content originating on Sky's channels. These costs include the amortization of owned and acquired programming costs, sports rights, direct production costs, residual and participation payments, production overhead, and on-air talent costs. These expenses also include the fees associated with programming distribution agreements for channels owned by third parties, which are generally based on the number of customers who are able to watch the programming and the platforms on which the content is provided.

Direct Network Costs

Direct network costs primarily include costs directly related to the supply of high-speed internet and voice services, including wireless phone services, to Sky's customers. This includes call costs, monthly wholesale access fees and other variable costs associated with our network. In addition, it includes the cost of mobile handsets sold to customers.

Other

Other expenses include costs related to marketing, subscriber management, supply chain, transmission, technology, fixed networks and general administrative costs.

Corporate and Other Results of Operations

Year ended December 31 (in millions)	2018	2017	2016	% Change 2017 to 2018	% Change 2016 to 2017
Revenue	**$ 1,403**	$ 1,193	$ 886	**17.5 %**	34.7 %
Operating costs and expenses	**3,428**	2,815	1,735	**21.7**	62.3
Adjustment for legal settlement	**(125)**	(250)	—	**NM**	NM
Adjustment for Sky transaction-related costs	**(355)**	—	—	**NM**	NM
Adjusted EBITDA	**$ (1,545)**	$ (1,372)	$ (849)	**(12.6)%**	(61.6)%

Corporate and Other – Revenue

Other revenue primarily relates to revenue from business development initiatives, such as our wireless phone service that launched in 2017, and from Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

Other revenue increased in 2018 primarily due to:

- Increase in revenue associated with our wireless phone service
- Decrease in revenue due to the sale of a controlling interest in our arena management-related businesses in the second quarter of 2018 and the sale of a business in the third quarter of 2017

Corporate and Other – Operating Costs and Expenses

Corporate and Other operating costs and expenses primarily include overhead and personnel costs, the costs of other business development initiatives, including our wireless phone service, and operating costs and expenses associated with Comcast Spectacor.

Corporate and Other operating costs and expenses increased in 2018 primarily due to:

- Increase in expenses associated with our wireless phone service
- Increase in expenses directly related to the Sky transaction, including the U.K. share acquisition tax and success-based investment banker fees, and legal, accounting and valuation services, as well as certain other impacts resulting from the Sky transaction, such as expenses resulting from the replacement of share-based compensation awards
- Decrease in operating costs and expenses due to the sale of a controlling interest in our arena management-related businesses in the second quarter of 2018 and the sale of a business in the third quarter of 2017
- Corporate and Other Adjusted EBITDA excludes $355 million of costs incurred in the fourth quarter of 2018 in connection with the Sky transaction, including the U.K. share acquisition tax and success-based investment banker fees, and $125 million of expenses related to a legal settlement

Corporate and Other operating costs and expenses increased in 2017 primarily due to:

- Increase in expenses associated with our new wireless phone service
- Increase of $171 million related to a one-time special cash bonus for eligible employees
- Corporate and Other Adjusted EBITDA excludes $250 million of expense related to a legal settlement in 2017

Non-GAAP Financial Measure

Consolidated Adjusted EBITDA is a non-GAAP financial measure of performance and is defined as net income attributable to Comcast Corporation before net income (loss) attributable to noncontrolling interests and redeemable subsidiary preferred stock, income tax benefit (expense), investment and other income (loss), net, interest expense, depreciation and amortization expense, and other operating gains and losses (such as impairment charges related to fixed and intangible assets and gains or losses on the sale of long-lived assets), if any. From time to time we may exclude from Adjusted EBITDA the impact of certain events, gains, losses or other charges (such as significant legal settlements) that affect the period-to-period comparability of our operating performance. This measure eliminates the significant level of noncash depreciation and amortization expense that results from the

capital-intensive nature of certain of our businesses and from intangible assets recognized in business combinations. It is also unaffected by our capital and tax structures, and by our investment activities, including the results of entities that we do not consolidate, as our management excludes these results when evaluating our operating performance. Our management and Board of Directors use this financial measure to evaluate our consolidated operating performance and the operating performance of our operating segments and to allocate resources and capital to our operating segments. It is also a significant performance measure in our annual incentive compensation programs. Additionally, we believe that Adjusted EBITDA is useful to investors because it is one of the bases for comparing our operating performance with that of other companies in our industries, although our measure of consolidated Adjusted EBITDA may not be directly comparable to similar measures used by other companies. We reconcile consolidated Adjusted EBITDA to net income attributable to Comcast Corporation. This measure should not be considered a substitute for operating income (loss), net income (loss), net income (loss) attributable to Comcast Corporation, or net cash provided by operating activities that we have reported in accordance with GAAP.

Reconciliation from Net Income Attributable to Comcast Corporation to Adjusted EBITDA

Year ended December 31 (in millions)	2018	2017	2016
Net income attributable to Comcast Corporation	**$ 11,731**	$ 22,735	$ 8,678
Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	**131**	187	350
Income tax (benefit) expense	**3,380**	(7,569)	5,298
Investment and other (income) loss, net	**225**	(421)	(437)
Interest expense	**3,542**	3,086	2,942
Depreciation	**8,281**	7,914	7,464
Amortization	**2,736**	2,216	1,962
Other operating gains	**(341)**	(442)	—
Adjustment for Sky transaction-related costs	**355**	—	—
Adjustment for legal settlement	**125**	250	—
Adjusted EBITDA	**$ 30,165**	$ 27,956	$ 26,257

Liquidity and Capital Resources

Our businesses generate significant cash flows from operating activities. We believe that we will be able to continue to meet our current and long-term liquidity and capital requirements, including fixed charges, through our cash flows from operating activities; existing cash, cash equivalents and investments; available borrowings under our existing credit facilities; and our ability to obtain future external financing. We anticipate that we will continue to use a substantial portion of our cash flows in repaying our debt obligations, funding our capital expenditures, investing in business opportunities and returning capital to shareholders.

We also maintain significant availability under our revolving credit facilities and our commercial paper programs to meet our short-term liquidity requirements. Our commercial paper programs provide a lower-cost source of borrowing to fund our short-term working capital requirements. See Note 7 to Comcast's consolidated financial statements for additional information on the Comcast, NBCUniversal Enterprise and Sky revolving credit facilities and the related guarantees. As of December 31, 2018, amounts available under our consolidated revolving credit facilities, net of amounts outstanding under our commercial paper programs and outstanding letters of credit, totaled $9.2 billion, which included $0.9 billion available under the NBCUniversal Enterprise revolving credit facility and $0.7 billion available under the Sky revolving credit facility.

In the fourth quarter of 2018, we acquired a 100% interest in Sky for total cash consideration of £30.2 billion (approximately $39.4 billion using the exchange rates on the purchase dates). To finance the acquisition, we used funds from unsecured term loans and senior unsecured fixed and floating rate notes. The unsecured term loans and senior notes are guaranteed by Comcast Cable and NBCUniversal. The remaining amount of consideration was funded using cash on hand. As of October 9, 2018, Sky had outstanding indebtedness that is now consolidated in our financial statements with an aggregate fair value of approximately $11.2 billion using the exchange rates as of such date, which is not guaranteed by us, Comcast Cable or NBCUniversal as of December 31, 2018.

We, NBCUniversal and Comcast Cable are subject to the covenants and restrictions set forth in the indentures governing our public debt securities and in the credit agreements governing the Comcast revolving credit facility. The financial covenant in the credit facility pertains to leverage, which is the ratio of debt to EBITDA, as defined in the credit facility. We test for compliance with this financial covenant on an ongoing basis. As of December 31, 2018, we met this financial covenant by a significant margin. We do not expect to have to reduce debt or improve operating results in order to continue to comply with this financial covenant. In addition, the Sky revolving credit facility contains two financial covenants, a ratio of net debt to EBITDA and a ratio of EBITDA to net interest payable, as defined in the Sky credit facility. The Universal Studios Japan term loans also contain certain financial covenants. As of December 31, 2018, Sky and Universal Studios Japan were in compliance with all of these covenants.

Operating Activities

Components of Net Cash Provided by Operating Activities

Year ended December 31 (in millions)	2018	2017	2016
Operating income	**$ 19,009**	$ 18,018	$ 16,831
Depreciation, amortization and other operating gains	**10,676**	9,688	9,426
Noncash share-based compensation	**826**	751	640
Changes in operating assets and liabilities	**(1,313)**	(546)	(1,404)
Payments of interest	**(2,897)**	(2,820)	(2,565)
Payments of income taxes	**(2,355)**	(4,057)	(3,693)
Proceeds from investments and other	**351**	227	456
Net cash provided by operating activities	**$ 24,297**	$ 21,261	$ 19,691

The variance in changes in operating assets and liabilities in 2018 compared to 2017 was primarily related to the timing of film and television costs at Sky, our broadcast of the 2018 PyeongChang Olympics and continued growth in our wireless phone service offering, partially offset by our broadcast of the 2018 Super Bowl. The variance in changes in operating assets and liabilities in 2017 compared to 2016 was primarily due to the timing of film and television production spending and related costs, net of amortization; the recognition of deferred revenue associated with our broadcast of the 2016 Rio Olympics; the payment in 2016 of a tax receivable agreement that DreamWorks Animation entered into with one of its former stockholders; and the launch in 2017 of our wireless phone service offering.

The increases in interest payments in 2018 and 2017 were primarily due to higher levels of debt outstanding, including the issuance of new debt in 2018 associated with the financing of the Sky transaction.

The decrease in income tax payments in 2018 was primarily due to federal income tax overpayments of $824 million related to the 2017 tax year that were applied to reduce tax payments in the current year, as well as a reduction in the federal income tax rate and additional depreciation deductions allowed under the 2017 Tax Act. This decrease was partially offset by higher taxable income from operations in the current year. The increase in income tax payments in 2017 was primarily due to higher taxable income from operations and payments associated with tax disputes, partially offset by tax deductions resulting from our senior notes exchange and additional depreciation deductions allowed under the 2017 Tax Act.

Investing Activities

Net cash used in investing activities in 2018 consisted primarily of cash paid for acquisitions, cash paid for capital expenditures, cash paid for intangible assets and purchases of investments. Net cash used in investing activities in 2017 consisted primarily of cash paid for capital expenditures, purchases of investments and intangible assets. Net cash used in investing activities in 2016 consisted primarily of cash paid for capital expenditures, acquisitions, deposits, purchase of investments and intangible assets.

Acquisitions, Net of Cash Acquired

In the fourth quarter 2018, we acquired Sky through a series of transactions.

In August 2016, we acquired all of the outstanding stock of DreamWorks Animation.

Capital Expenditures

Our most significant recurring investing activity has been capital expenditures in our Cable Communications segment, and we expect that this will continue in the future. The table below summarizes the capital expenditures we incurred in our Cable Communications segment in 2018, 2017 and 2016.

Year ended December 31 (in millions)	2018	2017	2016
Customer premise equipment	**$ 2,917**	$ 3,337	$ 3,665
Scalable infrastructure	**2,555**	2,369	1,827
Line extensions	**1,484**	1,367	1,208
Support capital	**760**	879	896
Total	**$ 7,716**	$ 7,952	$ 7,596

Cable Communications capital expenditures decreased 3.0% in 2018 primarily due to decreases in spending on customer premise equipment and support capital, which were partially offset by increases due to our continued investment in scalable infrastructure and increased investment in line extensions for the expansion of business services. Cable Communications capital expenditures increased 4.7% in 2017 primarily due to continued investment in scalable infrastructure to increase network capacity and increased investment in line extensions for the expansion of business services and residential. The increase in 2017 was partially offset by a decrease in spending on customer premise equipment and support capital.

Capital expenditures in our NBCUniversal segments increased 15.2% to $1.7 billion in 2018 primarily due to an increase in spending at our Universal Theme Parks. Capital expenditures in our NBCUniversal segments increased 3.4% to $1.5 billion in 2017 primarily due to continued investment at our Theme Parks segment, which was partially offset by the timing of real estate and infrastructure investment.

Capital expenditures in our Sky segment from October 9, 2018 to December 31, 2018 totaled $222 million, reflecting continued deployment of Sky Q.

We expect our capital expenditures for 2019 will be focused on continued investment in scalable infrastructure to increase network capacity in our Cable Communications segment; increased investment in line extensions for the expansion of both business services and residential; and the continued deployment of wireless gateways, our X1 platform, cloud DVR technology, Sky Q and international OTT platforms. In addition, we expect to continue to invest in existing and new attractions at our Universal theme parks. Capital expenditures for subsequent years will depend on numerous factors, including acquisitions, competition, changes in technology, regulatory changes, the timing and rate of deployment of new services, the capacity required for existing services, and the timing of new attractions at our theme parks.

Cash Paid for Intangible Assets

In 2018, cash paid for intangible assets consisted primarily of expenditures for software in our Cable Communication segment, and to a lesser extent, our NBCUniversal segment. Cash paid for intangible assets in 2017 and 2016 consisted primarily of expenditures in our Cable Communications segment.

Acquisitions and Construction of Real Estate Properties

Acquisitions and construction of real estate properties in 2018, 2017 and 2016 primarily included the construction of the Comcast Technology Center in Philadelphia, Pennsylvania.

Construction of Universal Beijing Resort

Construction of Universal Beijing Resort in 2018 and 2017 primarily included costs related to the construction of the Universal theme park and resort in Beijing, China.

Proceeds from Sales of Businesses and Investments

Proceeds from sales of businesses and investments in 2016 were primarily related to the sale of our investment in The Weather Channel's product and technology business.

Purchases of Investments

Purchases of investments in 2018 were primarily related to capital contributions to Atairos and NBCUniversal's capital contributions to Hulu. Purchases of investments in 2017 were primarily related to capital contributions to Atairos, our investment in Snap Inc. and NBCUniversal's capital contributions in Hulu. Purchases of investments in 2016 were primarily related to capital contributions to Atairos and NBCUniversal's investment in BuzzFeed, Inc.

Deposits

On April 13, 2017, the Federal Communications Commission ("FCC") announced the results of its spectrum auction. In connection with the auction, we acquired the rights to $1.7 billion of spectrum. We had previously made a deposit of $1.8 billion to participate in the auction in 2016 and received a refund for amounts in excess of the purchase price in 2017.

Other

Other investing activities in 2018 were primarily related to proceeds received from the sale of an investment and proceeds from the settlement of derivative contracts. Other investing activities in 2017 were primarily related to proceeds of $482 million received by NBCUniversal in the FCC auction for the relinquishment of spectrum rights (see Note 8 to Comcast's consolidated financial statements and Note 7 to NBCUniversal's consolidated financial statements).

Financing Activities

Net cash provided by financing activities in 2018 consisted primarily of proceeds from borrowings, including the financing of the Sky acquisition, which were partially offset by repayments of debt, repurchases of common stock under our share repurchase program and employee plans, and dividend payments. Net cash used in financing activities in 2017 and 2016 consisted primarily of repayments of debt, repurchases of common stock under our repurchase program and employee plans, and dividend payments, which were partially offset by proceeds from borrowings. Proceeds from borrowings fluctuate from year to year based on the amounts paid to fund acquisitions, including Sky in 2018, and debt repayments. Net cash used in financing activities in 2017 also included the purchase of the remaining 49% noncontrolling interests in Universal Studios Japan. Net cash used in financing activities in 2016 also included our purchase of the remaining noncontrolling interest in Comcast Spectacor.

We have made, and may from time to time in the future make, optional repayments on our debt obligations, which may include repurchases or exchanges of our outstanding public notes and debentures, depending on various factors, such as market conditions. See Note 7 to Comcast's consolidated financial statements and Note 6 to NBCUniversal's consolidated financial statements for additional information on our financing activities.

Share Repurchases and Dividends

In 2018, we repurchased a total of 140 million shares of our Class A common stock for $5.0 billion under our share repurchase program authorization. Effective January 1, 2017, our Board of Directors increased our share repurchase program authorization to a total of $12.0 billion, which does not have an expiration date. As of December 31, 2018, $2.0 billion remained under this authorization. Under the authorization, we may repurchase shares in the open market or in private transactions. We plan to pause our common stock repurchase program in 2019 to accelerate the reduction of indebtedness we incurred in connection with the acquisition of Sky.

Our Board of Directors declared quarterly dividends totaling $3.5 billion in 2018. We paid dividends of $3.4 billion in 2018. In January 2019, our Board of Directors approved a 10% increase in our dividend to $0.84 per share on an annualized basis. We expect to continue to pay quarterly dividends, although each dividend is subject to approval by our Board of Directors.

The chart below summarizes our share repurchases under our publicly announced share repurchase program authorization and dividends paid in 2018, 2017 and 2016. In addition, we paid $320 million, $435 million and $352 million in 2018, 2017 and 2016, respectively, related to employee taxes associated with the administration of our share-based compensation plans.

Share Repurchases Under Share Repurchase Program Authorization and Dividends Paid

(in billions)

Contractual Obligations

As of December 31, 2018 (in millions)	Payment Due by Period				
	Total	Year 1	Years 2-3	Years 4-5	More than 5
Debt obligations[a]	$ 112,947	$ 4,361	$ 19,414	$ 16,534	$ 72,638
Capital lease obligations	498	52	95	25	326
Operating lease obligations	5,263	759	1,325	894	2,285
Purchase obligations[b]	78,010	26,650	22,423	9,153	19,784
Other long-term liabilities reflected on the balance sheet[c]	6,012	366	2,941	756	1,949
Total[d][e]	$ 202,730	$ 32,188	$ 46,198	$ 27,362	$ 96,982

Refer to Note 7 and Note 17 to Comcast's consolidated financial statements.

(a) Excludes interest payments.

(b) Purchase obligations consist of agreements to purchase goods and services that are legally binding on us and specify all significant terms, including fixed or minimum quantities to be purchased and price provisions. Our purchase obligations related to our Cable Communications and Sky segments, and other business development initiatives include programming contracts with cable networks and local broadcast television stations; contracts with customer premise equipment manufacturers; contracts with communications vendors and multichannel video providers for which we provide advertising sales representation; contracts to

acquire handsets and other equipment; and other contracts entered into in the normal course of business. Cable Communications' and Sky's programming contracts include amounts payable under fixed or minimum guaranteed commitments and do not represent the total fees that are expected to be paid under programming contracts, which we expect to be significantly higher because these contracts are generally based on the number of subscribers receiving the programming. Our purchase obligations related to our NBCUniversal and Sky segments include commitments to acquire film and television programming, including broadcast rights relating to sporting events, such as the Olympics, as well as obligations under various creative talent agreements, including obligations to actors, producers and television personalities, and various other television commitments. Purchase obligations do not include contracts with immaterial future commitments.

(c) Other long-term liabilities reflected on the balance sheet consist primarily of subsidiary preferred shares; deferred compensation obligations; and postretirement, pension and postemployment benefit obligations. A contractual obligation with a carrying value of $1.1 billion is not included in the table above because it is uncertain if the arrangement will be settled. The contractual obligation involves an interest held by a third party in the revenue of certain theme parks. The arrangement provides the counterparty with the right to periodic payments associated with current period revenue and, beginning in June 2017, the option to require NBCUniversal to purchase the interest for cash in an amount based on a contractual formula. The contractual formula is based on an average of specified historical theme park revenue at the time of exercise, which amount could be significantly higher than the carrying value. As of December 31, 2018, the value of the contractual obligation was $1.6 billion, based on inputs to the contractual formula as of that date. See Note 17 to Comcast's consolidated financial statements for additional information related to this arrangement. Liabilities for uncertain tax positions of $1.0 billion and the associated interest and penalties are not included in the table above because it is uncertain if or when these amounts will become payable. Payments of $2.9 billion of participations and residuals are also not included in the table above because we cannot make a reliable estimate of the period in which these obligations will be settled.

(d) Our contractual obligations do not include our commitment to invest up to $5 billion at any one time as an investor in Atairos due to our inability to estimate the timing of this funding. As of December 31, 2018, our remaining commitment is $2.7 billion based on the capital calls received as of that date (see Note 10 to Comcast's consolidated financial statements).

(e) Total contractual obligations are made up of the following components.

(in millions)		
Liabilities recorded on the balance sheet	$	126,353
Commitments not recorded on the balance sheet		76,377
Total	**$**	**202,730**

Off-Balance Sheet Arrangements

As of December 31, 2018, we did not have any material off-balance sheet arrangements that are reasonably likely to have a current or future effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Recent Accounting Pronouncements

See Note 9 to Comcast's consolidated financial statements and Note 8 to NBCUniversal's consolidated financial statements for additional information related to recent accounting pronouncements, including the impact of the adoption of the updated accounting guidance related to revenue recognition.

Critical Accounting Judgments and Estimates

The preparation of our consolidated financial statements requires us to make estimates that affect the reported amounts of assets, liabilities, revenue and expenses, and the related disclosure of contingent assets and contingent liabilities. We base our judgments on our historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making estimates about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe our judgments and related estimates associated with the valuation and impairment testing of our cable franchise rights and the accounting for film and television costs are critical in the preparation of our consolidated financial statements. As a result of the Sky transaction, one additional area has been identified as critical in the preparation of our consolidated financial statements. The one additional critical accounting judgment and estimate is the valuation of acquisition-related assets and liabilities. Management has discussed the development and selection of these critical accounting judgments and estimates with the Audit Committee of our Board of Directors, and the Audit Committee has reviewed our disclosures relating to them, which are presented below. See Notes 4, 8 and 12 to Comcast's consolidated financial statements for a discussion of our accounting policies with respect to these items.

Valuation and Impairment Testing of Cable Franchise Rights

Our cable franchise rights assets result from agreements we have with state and local governments that allow us to construct and operate a cable business within a specified geographic area. The value of a franchise is derived from the economic benefits we receive from the right to solicit new customers and to market additional services in a particular service area. The amounts we record for cable franchise rights are primarily a result of cable system acquisitions. Typically when we acquire a cable system, the most significant asset we record is the value of the cable franchise rights. Often these cable system acquisitions include multiple franchise areas. We currently serve approximately 6,400 franchise areas in the United States.

We have concluded that our cable franchise rights have an indefinite useful life since there are no legal, regulatory, contractual, competitive, economic or other factors which limit the period over which these rights will contribute to our cash flows. Accordingly, we do not amortize our cable franchise rights but we assess their carrying values annually, or more frequently whenever events or changes in circumstances indicate that the carrying amount may exceed the fair value ("impairment testing").

For the purpose of our impairment testing, we have grouped the recorded values of our various cable franchise rights into our three Cable Communications divisions or units of account. We evaluate the unit of account periodically to ensure our impairment testing is performed at an appropriate level.

The annual impairment test for indefinite-lived intangible assets allows for the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of the asset is less than its carrying amount. An entity may choose to perform the qualitative assessment or an entity may bypass the qualitative assessment and proceed directly to the quantitative impairment test. If it is determined, on the basis of qualitative factors, that the fair value of the indefinite-lived intangible asset is, more likely than not, less than its carrying value, the quantitative impairment test is required. When performing a quantitative assessment, we estimate the fair value of our cable franchise rights primarily based on a discounted cash flow analysis that involves significant judgment. When analyzing the fair values indicated under the discounted cash flow models, we also consider multiples of Adjusted EBITDA generated by the underlying assets, current market transactions and profitability information.

In 2018, we performed a quantitative assessment of our cable franchise rights. Based on this assessment, the estimated fair values of our franchise rights exceeded the carrying value of the Northeast, Central and West divisions by 29%, 46% and 58%, respectively.

Since the adoption of the accounting guidance related to goodwill and intangible assets in 2002, we have not recorded any significant impairment charges to cable franchise rights.

We could record impairment charges in the future if there are changes in long-term market conditions, in expected future operating results, or in federal or state regulations that prevent us from recovering the carrying value of these cable franchise rights. Assumptions made about increased competition and economic conditions could also impact the results of any qualitative assessment and the valuations used in future annual quantitative impairment testing and result in a reduction in the fair values of our cable franchise rights. In addition, a future change in the unit of account could result in the recognition of an impairment charge.

Film and Television Costs

We capitalize film and television production costs, including direct costs, production overhead, print costs, development costs and interest. We amortize capitalized film and television production costs, including acquired libraries, and accrue costs associated with participation and residual payments to programming and production expenses. We generally record the amortization and the accrued costs using the individual film forecast computation method, which amortizes the costs using the ratio of the current period's revenue to estimated total remaining revenue from all sources ("ultimate revenue"). Estimates of ultimate revenue have a significant impact on how quickly capitalized costs are amortized and, therefore, are updated regularly.

Our estimates of ultimate revenue for films generally include revenue from all sources that are expected to be earned within 10 years from the date of a film's initial release. These estimates are based on the historical performance of similar content, as well as factors unique to the content itself. The most sensitive factor affecting our estimate of ultimate revenue for a film intended for theatrical release is the film's theatrical performance, as subsequent revenue from the licensing and sale of a film has historically exhibited a high correlation to its theatrical performance. Upon a film's release, our estimates of revenue from succeeding markets, including from content licensing across multiple platforms and home entertainment sales, are revised based on historical relationships and an analysis of current market trends.

With respect to television series or other owned television programming, the most sensitive factor affecting our estimate of ultimate revenue is whether the series can be successfully licensed beyond its initial license. Initial estimates of ultimate revenue are limited to the amount of revenue contracted for each episode under the initial license. Once it is determined that a television series or other owned television programming can be licensed for subsequent platforms, revenue estimates for these platforms, such as U.S. and international syndication, home entertainment, and other distribution platforms, are included in ultimate revenue. Revenue estimates for produced episodes include revenue expected to be earned within 10 years of delivery of the initial episode or, if still in production,

5 years from the delivery of the most recent episode, if later.

We capitalize the costs of programming content that we license but do not own, including rights to multiyear, live-event sports programming, at the earlier of when payments are made for the programming or when the license period begins and the content is made available for use. We amortize capitalized programming costs as the associated programs are broadcast. We generally amortize multiyear, live-event sports programming rights using the ratio of the current period revenue to the estimated ultimate revenue or under the terms of the contract.

Capitalized film and television costs are subject to impairment testing when certain triggering events are identified. If the fair value of a production were to fall below its unamortized cost, we would record an adjustment for the amount by which the unamortized capitalized costs exceed the production's fair value. The fair value assessment is generally based on estimated future discounted cash flows, which are supported by our internal forecasts. Adjustments to capitalized film production costs were not material in any of the periods presented.

Fair Value of Acquisition-Related Assets and Liabilities

We allocate the purchase price of acquired companies to tangible and intangible assets and liabilities based on their estimated fair values. In determining fair value, management is required to make estimates and assumptions that affect the recorded amounts. Management's estimates of fair value are based on assumptions believed to be reasonable but that are inherently uncertain. As part of the estimation process, third-party valuation specialists are engaged to assist in the valuation of certain of these assets and liabilities.

Our judgments used to determine the estimated fair value assigned to each class of acquired assets and liabilities, as well as asset lives and depreciation and amortization methods, have a material impact on our consolidated financial statements. For instance, the determination of asset lives impacts our results of operations as different types of assets have different useful lives and certain assets may be considered to have indefinite useful lives.

Due to the timing of the Sky acquisition, the allocation of purchase price is based on preliminary estimates and is subject to change. Below is a summary of the methodologies and significant assumptions used in estimating the fair value of certain of Sky's assets and liabilities for which preliminary estimates were determined. Other assets, such as property and equipment, have been recorded based on historical cost as no better estimate was available as of December 31, 2018.

Intangible Assets

Intangible assets primarily consist of our estimates of fair value for finite-lived customer relationships, and indefinite-lived trade names.

Customer relationships were valued using a multiperiod cash flow model, a form of the income approach. This measure of fair value requires considerable judgments about future events, including attrition, contract renewal estimates and technology changes.

In determining the estimated lives and method of amortization for finite-lived intangibles, we use a method and life that closely follows the undiscounted cash flows over the estimated life of the asset.

Trade names were valued using the relief-from-royalty method, a form of the income approach. This measure of fair value requires considerable judgment about the value a market participant would be willing to pay in order to achieve the benefits associated with the trade name.

Contractual Obligations

Contractual obligations were adjusted to market rates using a combination of discounted cash flows and market assumptions, when available.

Item 7A: Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk Management

We maintain a mix of fixed-rate and variable-rate debt and we are exposed to the market risk of adverse changes in interest rates. In order to manage the cost and volatility relating to the interest cost of our outstanding debt, we enter into various interest rate risk management derivative transactions in accordance with our policy.

We monitor our exposure to the risk of adverse changes in interest rates through the use of techniques that include market valuation and sensitivity analyses. We do not engage in any speculative or leveraged derivative transactions.

Our interest rate derivative financial instruments, which may include swaps, rate locks, caps and collars, represent an integral part of our interest rate risk management program. Our interest rate derivative financial instruments reduced the portion of our total consolidated debt at fixed rates as of December 31, 2018 to 81.5% from 82.8%.

The effect of our interest rate derivative financial instruments was to decrease our consolidated interest expense by $6 million, $23 million and $36 million, in 2018, 2017 and 2016, respectively. The effect of NBCUniversal's interest rate derivative financial instruments was not material to NBCUniversal's consolidated financial statements for any period presented. Interest rate derivative financial instruments may have a significant effect on our consolidated interest expense in the future.

The table below summarizes as of December 31, 2018 by contractual year of maturity the principal amount of our debt, notional amount of our interest rate instruments, effective rates, and fair values subject to interest rate risk maintained by us.

(in millions)	2019	2020	2021	2022	2023	Thereafter	Total	Estimated Fair Value as of December 31, 2018
Debt								
Fixed rate	$ 3,005	$ 5,764	$ 5,772	$ 3,694	$ 3,835	$ 71,890	$ 93,960	$ 94,637
Average interest rate	2.9%	4.3%	3.2%	4.9%	2.6%	4.3%	4.1%	
Variable rate	$ 1,408	$ 2,197	$ 5,776	$ 5,047	$ 3,983	$ 1,074	$ 19,485	$ 19,447
Average interest rate	2.1%	1.8%	2.4%	2.0%	2.3%	3.9%	2.3%	
Interest Rate Instruments								
Fixed to variable swaps	$ 200	$ 574	$ —	$ —	$ —	$ —	$ 774	$ 5
Average pay rate	6.1%	2.3%	—%	—%	—%	—%	3.2%	
Average receive rate	5.7%	2.9%	—%	—%	—%	—%	3.6%	

The average interest rates on our debt in the table above reflect the effects of our derivative financial instruments. We estimate interest rates on variable rate debt and swaps using the relevant average implied forward rates through the year of maturity based on the yield curve in effect on December 31, 2018, plus the applicable borrowing margin. The notional amount of each interest rate derivative financial instrument is used to calculate the interest to be paid or received. The notional amounts do not represent our exposure to credit loss. The estimated fair value approximates the amount of payments to be made or proceeds to be received to settle the outstanding contracts, including accrued interest.

See Note 1 to each of Comcast's and NBCUniversal's consolidated financial statements for additional information on our accounting policies for derivative financial instruments.

Foreign Exchange Risk Management

We have significant operations in a number of countries outside the United States through Sky and NBCUniversal, and certain of our operations are conducted in foreign currencies. The value of these currencies fluctuates relative to the U.S. dollar. These changes could adversely affect the U.S. dollar equivalent value of our non-U.S. dollar revenue and operating costs and expenses, which could negatively affect our business, financial condition and results of operations in a given period or in specific territories.

As part of our overall strategy to manage the level of exposure to the risk of foreign exchange rate fluctuations, we enter into derivative financial instruments related to a significant portion of our foreign currency exposure for transactions denominated in other than the functional currency. We enter into foreign currency forward contracts that change in value as currency exchange rates fluctuate to protect the functional currency equivalent value of non-functional currency denominated assets, liabilities, commitments, and forecasted non-functional currency revenue and expenses. In accordance with our policy, we hedge forecasted foreign currency transactions for periods generally not to exceed 18 months. In certain circumstances, we enter into foreign exchange contracts with initial maturities in excess of 18 months. As of December 31, 2018 and 2017, we had foreign exchange contracts on transactions other than debt with a total notional value of $5.8 billion and $1.3 billion, respectively, including contracts at NBCUniversal of $1.2 billion and $1.3 billion, respectively. As of December 31, 2018 and 2017, the aggregate estimated fair value of these foreign exchange contracts was not material.

We use cross-currency swaps for foreign currency denominated debt obligations when those obligations are denominated in a currency other than the functional currency. Cross-currency swaps effectively convert foreign currency denominated debt to debt denominated in the functional currency in order to hedge the risk that the cash flows related to annual interest payments and the payment of principal at maturity may be adversely affected by fluctuations in currency exchange rates. The gains and losses on these cross-currency swaps generally offset changes in the underlying value of the related exposures. As of December 31, 2018 and 2017, we had cross-currency swaps on $5.3 billion and $0.8 billion notional amount of our foreign currency denominated

debt, respectively. As of December 31, 2018 and 2017, the aggregate fair value of these cross-currency swaps was a net liability of $23 million and $80 million, respectively.

We are also exposed to foreign currency exchange risk on the consolidation of our foreign operations. Beginning in 2018, we use foreign currency denominated debt and cross-currency swaps to hedge our net investments in certain of these subsidiaries. As of December 31, 2018, we had $15.6 billion notional amount of foreign currency denominated debt and cross-currency swaps designated as net investment hedges of our foreign subsidiaries.

We have analyzed our foreign currency exposure related to our foreign operations as of December 31, 2018, including our hedging contracts, to identify assets and liabilities denominated in a currency other than their functional currency. For those assets and liabilities, we then evaluated the effect of a hypothetical 10% shift in currency exchange rates, inclusive of the effects of derivatives. The results of our analysis indicate that such a shift in exchange rates would not have a material impact on our 2018 net income attributable to Comcast Corporation.

Counterparty Credit Risk Management

We manage the credit risks associated with our derivative financial instruments through diversification and the evaluation and monitoring of the creditworthiness of counterparties. Although we may be exposed to losses in the event of nonperformance by counterparties, we do not expect such losses, if any, to be significant. We have agreements with certain counterparties that include collateral provisions. These provisions require a party with an aggregate unrealized loss position in excess of certain thresholds to post cash collateral for the amount in excess of the threshold. The threshold levels in our collateral agreements are based on our and the counterparty's credit ratings. As of December 31, 2018 and 2017, we were not required to post collateral under the terms of these agreements, nor did we hold any collateral under the terms of these agreements.

Item 8: Comcast Corporation Financial Statements and Supplementary Data

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NBCUniversal Media, LLC

See Index to NBCUniversal Media, LLC Financial Statements and Supplemental Data on page 128.

Report of Management

Management's Report on Comcast's Financial Statements

Our management is responsible for the preparation, integrity and fair presentation of information in Comcast's consolidated financial statements, including estimates and judgments. The consolidated financial statements presented in this report have been prepared in accordance with accounting principles generally accepted in the United States. Our management believes the Comcast consolidated financial statements and other financial information included in this report fairly present, in all material respects, Comcast's financial condition, results of operations and cash flows as of and for the periods presented in this report. The Comcast consolidated financial statements have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

Management's Report on Comcast's Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Our system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States.

Our internal control over financial reporting includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets.
- Provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in accordance with accounting principles generally accepted in the United States, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors.
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, effectiveness of internal control over financial reporting may vary over time. Our system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Our management conducted an evaluation of the effectiveness of the system of internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that Comcast's system of internal control over financial reporting was effective as of December 31, 2018. The scope of management's assessment of the effectiveness of internal control over financial reporting includes all of the Company's consolidated operations except for the operations of Sky Limited, which the Company acquired through a purchase business combination during the year ended December 31, 2018. Sky Limited represents approximately 5% of the Company's consolidated revenues for the year ended December 31, 2018 and approximately 24% of the Company's consolidated total assets as of December 31, 2018. The effectiveness of Comcast's internal controls over financial reporting of Comcast has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is included herein.

Audit Committee Oversight

The Audit Committee of the Board of Directors, which is comprised solely of independent directors, has oversight responsibility for our financial reporting process and the audits of Comcast's consolidated financial statements and internal control over financial reporting. The Audit Committee meets regularly with management and with our internal auditors and independent registered public accounting firm (collectively, the "auditors") to review matters related to the quality and integrity of our financial reporting, internal control over financial reporting (including compliance matters related to our Code of Conduct), and the nature, extent, and results of internal and external audits. Our auditors have full and free access and report directly to the Audit Committee. The Audit Committee recommended, and the Board of Directors approved, that the Comcast audited consolidated financial statements be included in this Form 10-K.

/s/ BRIAN L. ROBERTS	/s/ MICHAEL J. CAVANAGH	/s/ DANIEL C. MURDOCK
Brian L. Roberts	**Michael J. Cavanagh**	**Daniel C. Murdock**
Chairman and Chief Executive Officer	Senior Executive Vice President and Chief Financial Officer	Senior Vice President, Chief Accounting Officer and Controller

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Comcast Corporation
Philadelphia, Pennsylvania

Opinions on the Consolidated Financial Statements and Internal Control over Financial Reporting
We have audited the accompanying consolidated balance sheets of Comcast Corporation and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

As described in *Management's Report on Comcast's Internal Control Over Financial Reporting*, management excluded from its assessment the internal control over financial reporting at Sky Limited, which the Company acquired through a purchase business combination during the year ended December 31, 2018. Sky Limited represents approximately 5% of the Company's consolidated revenues for the year ended December 31, 2018, and approximately 24% of the Company's consolidated total assets as of December 31, 2018. Accordingly, our audit did not include the internal control over financial reporting at Sky Limited.

Basis for Opinions
The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report on Comcast's Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP
Philadelphia, Pennsylvania
January 31, 2019

We have served as the Company's auditor since 1963.

Comcast Corporation
Consolidated Statement of Income

Year ended December 31 (in millions, except per share data)		2018		2017		2016
Revenue	**$**	**94,507**	$	85,029	$	80,736
Costs and Expenses:						
Programming and production		**29,692**		25,355		24,348
Other operating and administrative		**28,094**		25,449		23,840
Advertising, marketing and promotion		**7,036**		6,519		6,291
Depreciation		**8,281**		7,914		7,464
Amortization		**2,736**		2,216		1,962
Other operating gains		**(341)**		(442)		—
Total costs and expenses		**75,498**		67,011		63,905
Operating income		**19,009**		18,018		16,831
Interest expense		**(3,542)**		(3,086)		(2,942)
Investment and other income (loss), net		**(225)**		421		437
Income before income taxes		**15,242**		15,353		14,326
Income tax (expense) benefit		**(3,380)**		7,569		(5,298)
Net income		**11,862**		22,922		9,028
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock		**131**		187		350
Net income attributable to Comcast Corporation	**$**	**11,731**	$	22,735	$	8,678
Basic earnings per common share attributable to Comcast Corporation shareholders	**$**	**2.56**	$	4.83	$	1.80
Diluted earnings per common share attributable to Comcast Corporation shareholders	**$**	**2.53**	$	4.75	$	1.78
Dividends declared per common share	**$**	**0.76**	$	0.63	$	0.55

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Comprehensive Income

Year ended December 31 (in millions)		**2018**		2017		2016
Net income	**$**	**11,862**	$	22,922	$	9,028
Unrealized gains (losses) on marketable securities, net of deferred taxes of $(1), $25 and $(1)		**1**		(42)		—
Deferred gains (losses) on cash flow hedges, net of deferred taxes of $(3), $(35) and $35		**50**		60		(60)
Amounts reclassified to net income:						
Realized (gains) losses on marketable securities, net of deferred taxes of $—, $1 and $1		**—**		(1)		(1)
Realized (gains) losses on cash flow hedges, net of deferred taxes of $(4), $22 and $(54)		**(6)**		(37)		92
Employee benefit obligations, net of deferred taxes of $(2), $(24) and $(125)		**7**		41		213
Currency translation adjustments, net of deferred taxes of $9, $(40) and $(14)		**(916)**		147		102
Comprehensive income		**10,998**		23,090		9,374
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock		**131**		187		350
Less: Other comprehensive income (loss) attributable to noncontrolling interests		**(41)**		81		74
Comprehensive income attributable to Comcast Corporation	**$**	**10,908**	$	22,822	$	8,950

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Cash Flows

Year ended December 31 (in millions)	2018	2017	2016
Operating Activities			
Net income	**$ 11,862**	$ 22,922	$ 9,028
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and other operating gains	**10,676**	9,688	9,426
Share-based compensation	**826**	751	640
Noncash interest expense (income), net	**364**	272	230
Net (gain) loss on investment activity and other	**576**	(194)	19
Deferred income taxes	**290**	(10,646)	1,434
Changes in operating assets and liabilities, net of effects of acquisitions and divestitures:			
Current and noncurrent receivables, net	**(802)**	(869)	(649)
Film and television costs, net	**(395)**	(197)	(501)
Accounts payable and accrued expenses related to trade creditors	**(394)**	173	378
Other operating assets and liabilities	**1,294**	(639)	(314)
Net cash provided by operating activities	**24,297**	21,261	19,691
Investing Activities			
Capital expenditures	**(9,774)**	(9,550)	(9,135)
Cash paid for intangible assets	**(1,935)**	(1,605)	(1,552)
Acquisitions and construction of real estate properties	**(143)**	(418)	(428)
Construction of Universal Beijing Resort	**(460)**	(71)	(22)
Acquisitions, net of cash acquired	**(38,219)**	(532)	(3,929)
Proceeds from sales of businesses and investments	**141**	150	218
Purchases of investments	**(1,257)**	(2,292)	(1,697)
Deposits	**—**	—	(1,749)
Other	**793**	785	29
Net cash provided by (used in) investing activities	**(50,854)**	(13,533)	(18,265)
Financing Activities			
Proceeds from (repayments of) short-term borrowings, net	**379**	(1,905)	1,790
Proceeds from borrowings	**44,781**	11,466	9,231
Repurchases and repayments of debt	**(8,798)**	(6,364)	(3,052)
Repurchases of common stock under repurchase program and employee plans	**(5,320)**	(5,435)	(5,352)
Dividends paid	**(3,352)**	(2,883)	(2,601)
Purchase of Universal Studios Japan noncontrolling interests	**—**	(2,299)	—
Issuances of common stock	**—**	—	23
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	**(277)**	(252)	(253)
Other	**(273)**	100	(220)
Net cash provided by (used in) financing activities	**27,140**	(7,572)	(434)
Impact of foreign currency on cash, cash equivalents and restricted cash	**(245)**	—	—
Increase (decrease) in cash, cash equivalents and restricted cash	**338**	156	992
Cash, cash equivalents and restricted cash, beginning of year	**3,571**	3,415	2,423
Cash, cash equivalents and restricted cash, end of year	**$ 3,909**	$ 3,571	$ 3,415

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Balance Sheet

December 31 (in millions, except share data)		2018		2017
Assets				
Current Assets:				
Cash and cash equivalents	**$**	**3,814**	$	3,428
Receivables, net		**11,104**		8,834
Programming rights		**3,746**		1,613
Other current assets		**3,184**		2,468
Total current assets		**21,848**		16,343
Film and television costs		**7,837**		7,087
Investments		**7,883**		6,931
Property and equipment, net		**44,437**		38,470
Franchise rights		**59,365**		59,364
Goodwill		**66,154**		36,780
Other intangible assets, net		**38,358**		18,133
Other noncurrent assets, net		**5,802**		4,354
Total assets	**$**	**251,684**	$	187,462
Liabilities and Equity				
Current Liabilities:				
Accounts payable and accrued expenses related to trade creditors	**$**	**8,494**	$	6,908
Accrued participations and residuals		**1,808**		1,644
Deferred revenue		**2,182**		1,687
Accrued expenses and other current liabilities		**10,721**		6,620
Current portion of long-term debt		**4,398**		5,134
Total current liabilities		**27,603**		21,993
Long-term debt, less current portion		**107,345**		59,422
Deferred income taxes		**27,589**		24,259
Other noncurrent liabilities		**15,329**		10,972
Commitments and contingencies (Note 17)				
Redeemable noncontrolling interests and redeemable subsidiary preferred stock		**1,316**		1,357
Equity:				
Preferred stock—authorized, 20,000,000 shares; issued, zero		**—**		—
Class A common stock, $0.01 par value—authorized, 7,500,000,000 shares; issued, 5,389,309,175 and 5,507,854,670; outstanding, 4,516,518,147 and 4,635,063,642		**54**		55
Class B common stock, $0.01 par value—authorized, 75,000,000 shares; issued and outstanding, 9,444,375		**—**		—
Additional paid-in capital		**37,461**		37,497
Retained earnings		**41,983**		38,202
Treasury stock, 872,791,028 Class A common shares		**(7,517)**		(7,517)
Accumulated other comprehensive income (loss)		**(368)**		379
Total Comcast Corporation shareholders' equity		**71,613**		68,616
Noncontrolling interests		**889**		843
Total equity		**72,502**		69,459
Total liabilities and equity	**$**	**251,684**	$	187,462

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Changes in Equity

(in millions)	Redeemable Noncontrolling Interests and Redeemable Subsidiary Preferred Stock	Common Stock A	Common Stock B	Additional Paid-In Capital	Retained Earnings	Treasury Stock at Cost	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Equity
Balance, December 31, 2015	$ 1,221	$ 57	$ —	$ 38,490	$ 21,413	$ (7,517)	$ (174)	$ 1,709	$ 53,978
Stock compensation plans				770					770
Repurchases of common stock under repurchase program and employee plans		(1)		(999)	(4,376)				(5,376)
Employee stock purchase plans				156					156
Dividends declared					(2,656)				(2,656)
Other comprehensive income (loss)							272	74	346
Contributions from (distributions to) noncontrolling interests, net	(16)							(134)	(134)
Other	148			(187)	6			325	144
Net income	93				8,678			257	8,935
Balance, December 31, 2016	1,446	56	—	38,230	23,065	(7,517)	98	2,231	56,163
Stock compensation plans				554					554
Repurchases of common stock under repurchase program and employee plans		(1)		(832)	(4,623)				(5,456)
Employee stock purchase plans				190					190
Dividends declared					(2,975)				(2,975)
Other comprehensive income (loss)							87	81	168
Contributions from (distributions to) noncontrolling interests, net	(39)							(108)	(108)
Purchase of Universal Studios Japan noncontrolling interests				(696)			194	(1,736)	(2,238)
Other	(123)			51				261	312
Net income	73				22,735			114	22,849
Balance, December 31, 2017	1,357	55	—	37,497	38,202	(7,517)	379	843	69,459
Cumulative effects of adoption of accounting standards					**(43)**		**76**		**33**
Stock compensation plans				**607**					**607**
Repurchases of common stock under repurchase program and employee plans		**(1)**		**(920)**	**(4,408)**				**(5,329)**
Employee stock purchase plans				**214**					**214**
Dividends declared					**(3,499)**				**(3,499)**
Other comprehensive income (loss)							**(823)**	**(41)**	**(864)**
Contributions from (distributions to) noncontrolling interests, net	**(56)**							**294**	**294**
Other	**(43)**			**63**				**(280)**	**(217)**
Net income	**58**				**11,731**			**73**	**11,804**
Balance, December 31, 2018	**$ 1,316**	**$ 54**	**$ —**	**$ 37,461**	**$ 41,983**	**$ (7,517)**	**$ (368)**	**$ 889**	**$ 72,502**

See accompanying notes to consolidated financial statements.

Note 1: Basis of Presentation and Summary of Significant Accounting Policies

We are a global media and technology company with three primary businesses, Comcast Cable, NBCUniversal and Sky. We were incorporated under the laws of Pennsylvania in December 2001. Through our predecessors, we have developed, managed and operated cable systems since 1963.

In the fourth quarter of 2018, we acquired a 100% interest in Sky through a series of transactions, for total cash consideration of £30.2 billion (approximately $39.4 billion using the exchange rates on the purchase dates).

We present our operations for (1) Comcast Cable in one reportable business segment, referred to as Cable Communications; (2) NBCUniversal in four reportable business segments: Cable Networks, Broadcast Television, Filmed Entertainment and Theme Parks (collectively, the "NBCUniversal segments"); and (3) Sky in one reportable business segment. See Note 2 for additional information on our reportable business segments.

Basis of Presentation

The accompanying consolidated financial statements include all entities in which we have a controlling voting interest and variable interest entities ("VIEs") required to be consolidated in accordance with generally accepted accounting principles in the United States ("GAAP").

We translate assets and liabilities of our foreign operations where the functional currency is the local currency, primarily the British pound, euro, Japanese yen and Chinese renminbi, into U.S. dollars at the exchange rate as of the balance sheet date and translate revenue and expenses using average monthly exchange rates. The related translation adjustments are recorded as a component of accumulated other comprehensive income (loss) in our consolidated balance sheet. Any foreign currency transaction gains or losses are included in our consolidated statement of income.

Reclassifications

Reclassifications have been made to our consolidated financial statements for the prior periods to conform to classifications used in 2018. See Note 9 for a discussion of the effects of the adoption of new accounting pronouncements on our consolidated financial statements.

Accounting Policies

Our consolidated financial statements are prepared in accordance with GAAP, which require us to select accounting policies, including in certain cases industry-specific policies, and make estimates that affect the reported amount of assets, liabilities, revenue and expenses, and the related disclosure of contingent assets and contingent liabilities. Actual results could differ from these estimates. We believe that the judgments and related estimates for the following items are critical in the preparation of our consolidated financial statements:

- valuation and impairment testing of cable franchise rights (see Note 12)
- film and television costs (see Note 4)
- fair value of acquisition-related assets and liabilities (see Note 8)

In addition, the following accounting policies are specific to the industries in which we operate:

- capitalization and amortization of film and television costs (see Note 4)
- costs for connecting customers to our cable systems (see Note 11)

Information on other accounting policies and methods that we use in the preparation of our consolidated financial statements are included, where applicable, in their respective footnotes that follow. Below is a discussion of accounting policies and methods used in our consolidated financial statements that are not presented within other footnotes.

Advertising Expenses

Advertising costs are expensed as incurred.

Cash Equivalents

The carrying amounts of our cash equivalents approximate their fair values. Our cash equivalents consist primarily of money market funds and U.S. government obligations, as well as commercial paper and certificates of deposit with maturities of three months or less when purchased.

Derivative Financial Instruments

We use derivative financial instruments to manage our exposure to the risks associated with fluctuations in interest rates, foreign exchange rates and equity prices. Our objective is to manage the financial and operational exposure arising from these risks by offsetting gains and losses on the underlying exposures with gains and losses on the derivatives used to economically hedge them.

Our derivative financial instruments are recorded in our consolidated balance sheet at fair value. Refer to Note 7 for further information on foreign exchange derivatives related to debt. The impact of our remaining derivative financial instruments on our consolidated financial statements was not material in any of the periods presented.

Fair Value Measurements

The accounting guidance related to fair value measurements establishes a hierarchy based on the types of inputs used for the various valuation techniques (market approach, income approach and cost approach). The levels of the hierarchy are described below.

- Level 1: Values are determined using quoted market prices for identical financial instruments in an active market
- Level 2: Values are determined using quoted prices for similar financial instruments and valuation models whose inputs are observable
- Level 3: Values are determined using pricing models that use significant inputs that are primarily unobservable, discounted cash flow methodologies or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation

We use these levels of hierarchy to measure the fair value of certain financial instruments on a recurring basis, such as for investments; on a non-recurring basis, such as for acquisitions and impairment testing; for disclosure purposes, such as for long-term debt; and for other applications, as discussed in their respective footnotes. Our assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation and classification within the fair value hierarchy.

Asset Retirement Obligations

Certain of our cable franchise agreements and lease agreements contain provisions requiring us to restore facilities or remove property in the event that the franchise or lease agreement is not renewed. We expect to continually renew our cable franchise agreements and therefore cannot reasonably estimate liabilities associated with such agreements. A remote possibility exists that franchise agreements could be terminated unexpectedly, which could result in us incurring significant expense in complying with restoration or removal provisions. We do not have any material liabilities related to asset retirements recorded in our consolidated financial statements.

Note 2: Segment Information

Our Cable Communications segment primarily manages and operates cable systems that serve residential and business customers in the United States and sells advertising. As of December 31, 2018, our cable systems had 30.3 million total customer relationships, including 28.0 million residential and 2.3 million business customer relationships, of which 27.2 million received our high-speed internet service, 22.0 million received our video service, 11.4 million received our voice service and 1.3 million received our security and automation service.

Our Cable Networks segment consists primarily of a diversified portfolio of cable television networks. Our Cable Networks segment is comprised of our national cable networks that provide a variety of entertainment, news and information, and sports content; our regional sports and news networks; our international cable networks; our cable television studio production operations; and our various digital properties.

Our Broadcast Television segment consists primarily of the NBC and Telemundo broadcast networks, our NBC and Telemundo owned local broadcast television stations, the NBC Universo national cable network, our broadcast television studio production operations, and our various digital properties.

Our Filmed Entertainment segment primarily produces, acquires, markets and distributes filmed entertainment worldwide. Our films are produced primarily under the Universal Pictures, Illumination, DreamWorks Animation and Focus Features names.

Our Theme Parks segment consists primarily of our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. In addition, along with a consortium of Chinese state-owned companies, we are developing a Universal theme park and resort in Beijing, China.

Our Sky segment consists of the operations of Sky, which is a leading entertainment company in Europe. It is primarily a direct-to-consumer business, providing satellite and OTT video, high-speed internet, voice, and wireless phone services, and as of December 31, 2018 Sky had 23.6 million retail customer relationships. Sky is also a content business, operating entertainment networks, the Sky News broadcast network and Sky Sports networks.

Our other business interests, which are included in Corporate and Other, consist primarily of our wireless phone service and Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

We use Adjusted EBITDA to evaluate the profitability of our operating segments, and the components of net income attributable to Comcast Corporation excluded from Adjusted EBITDA are not separately evaluated. To be consistent with our current management reporting presentation, certain 2018, 2017 and 2016 operating results were reclassified related to certain NBCUniversal businesses now presented in the Sky segment. We do not present a measure of total assets for our reportable business segments as this information is not used by management to allocate resources and capital. Our financial data by business segment is presented in the tables below.

(in millions)	Revenue	Adjusted EBITDA[e]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2018					
Cable Communications	$ 55,143	$ 22,447	$ 8,264	$ 7,716	$ 1,282
NBCUniversal					
Cable Networks[a]	11,773	4,428	738	42	23
Broadcast Television[a]	11,439	1,657	146	204	81
Filmed Entertainment	7,152	734	145	35	25
Theme Parks	5,683	2,455	660	1,143	173
Headquarters and Other[b]	63	(680)	419	306	146
Eliminations[a][c]	(349)	4	—	—	—
NBCUniversal	35,761	8,598	2,108	1,730	448
Sky	4,587	692	539	222	137
Corporate and Other[d]	1,403	(1,545)	106	106	68
Eliminations[a][c]	(2,387)	(27)	—	—	—
Comcast Consolidated	**$ 94,507**	**$ 30,165**	**$ 11,017**	**$ 9,774**	**$ 1,935**

(in millions)	Revenue	Adjusted EBITDA[e]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2017					
Cable Communications	$ 53,070	$ 21,068	$ 8,006	$ 7,952	$ 1,241
NBCUniversal					
Cable Networks	10,497	4,053	755	33	19
Broadcast Television	9,563	1,251	133	180	22
Filmed Entertainment	7,595	1,276	109	58	23
Theme Parks	5,443	2,384	648	960	78
Headquarters and Other[b]	45	(741)	396	271	153
Eliminations[c]	(307)	(5)	—	—	—
NBCUniversal	32,836	8,218	2,041	1,502	295
Corporate and Other[d]	1,193	(1,372)	83	96	69
Eliminations[c]	(2,070)	42	—	—	—
Comcast Consolidated	$ 85,029	$ 27,956	$ 10,130	$ 9,550	$ 1,605

(in millions)	Revenue	Adjusted EBITDA[e]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2016					
Cable Communications	$ 50,577	$ 20,014	$ 7,538	$ 7,596	$ 1,243
NBCUniversal					
Cable Networks[a]	10,324	3,681	745	32	20
Broadcast Television[a]	10,085	1,293	125	153	19
Filmed Entertainment	6,229	662	47	33	16
Theme Parks	4,946	2,190	512	922	72
Headquarters and Other[b]	20	(699)	376	312	156
Eliminations[a][c]	(328)	11	—	—	—
NBCUniversal	31,276	7,138	1,805	1,452	283
Corporate and Other[d]	886	(849)	83	87	26
Eliminations[a][c]	(2,003)	(46)	—	—	—
Comcast Consolidated	$ 80,736	$ 26,257	$ 9,426	$ 9,135	$ 1,552

(a) The revenue and operating costs and expenses associated with our broadcast of the 2018 PyeongChang Olympics and the 2016 Rio Olympics were reported in our Cable Networks and Broadcast Television segments. The revenue and operating costs and expenses associated with our broadcast of the 2018 Super Bowl were reported in our Broadcast Television segment. Included in Eliminations are transactions relating to these events that our Broadcast Television and Cable Networks segments enter into with our other segments.

(b) NBCUniversal Headquarters and Other activities include costs associated with overhead, allocations, personnel and headquarter initiatives.

(c) Included in Eliminations are transactions that our segments enter into with one another. The most common types of transactions are the following:

- our Cable Networks segment generates revenue by selling programming to our Cable Communications segment, which represents a substantial majority of the revenue elimination amount
- our Broadcast Television segment generates revenue from the fees received under retransmission consent agreements with our Cable Communications segment
- our Cable Communications segment generates revenue by selling advertising and by selling the use of satellite feeds to our Cable Networks segment
- our Cable Networks and Broadcast Television segments generate revenue by selling advertising to our Cable Communications segment
- our Filmed Entertainment and Broadcast Television segments generate revenue by licensing content to our Cable Networks segment; for segment reporting, this revenue is recognized as the programming rights asset for the licensed content is amortized based on third-party revenue
- our Filmed Entertainment, Cable Networks and Broadcast Television segments generate revenue by licensing content to our Sky segment

(d) Corporate and Other activities include costs associated with overhead and personnel, revenue and expenses associated with other business development initiatives, including our wireless phone service, and the operations of Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

(e) We use Adjusted EBITDA as the measure of profit or loss for our operating segments. Adjusted EBITDA is defined as net income attributable to Comcast Corporation before net (income) loss attributable to noncontrolling interests and redeemable subsidiary preferred stock, income tax benefit (expense), investment and other income (loss), net, interest expense, depreciation and amortization expense, and other operating gains and losses (such as impairment charges related to fixed and intangible assets and gains or losses on the sale of long-lived assets), if any. From time to time we may exclude from Adjusted EBITDA the impact of certain events, gains, losses or other charges (such as significant legal settlements) that affect the period-to-period comparability of our operating performance. Our reconciliation of the aggregate amount of Adjusted EBITDA for our reportable segments to consolidated income before income taxes is presented in the table below.

Year ended December 31 (in millions)	2018	2017	2016
Adjusted EBITDA	$ 30,165	$ 27,956	$ 26,257
Adjustment for legal settlement	(125)	(250)	—
Adjustment for Sky transaction-related costs	(355)	—	—
Depreciation	(8,281)	(7,914)	(7,464)
Amortization	(2,736)	(2,216)	(1,962)
Other operating gains	341	442	—
Interest expense	(3,542)	(3,086)	(2,942)
Investment and other income (loss), net	(225)	421	437
Income before income taxes	$ 15,242	$ 15,353	$ 14,326

Note 3: Revenue

Year ended December 31 (in millions)	2018	2017	2016
Residential:			
High-speed internet	$ 17,144	$ 15,681	$ 14,421
Video	22,455	22,874	22,204
Voice	3,960	4,090	4,159
Business services	7,129	6,437	5,705
Advertising	2,795	2,450	2,626
Other	1,660	1,538	1,462
Total Cable Communications[a]	55,143	53,070	50,577
Distribution	6,826	6,081	5,978
Advertising	3,587	3,359	3,530
Content licensing and other	1,360	1,057	816
Total Cable Networks	11,773	10,497	10,324
Advertising	7,010	5,654	6,834
Content licensing	2,182	2,114	1,837
Distribution and other	2,247	1,795	1,414
Total Broadcast Television	11,439	9,563	10,085
Theatrical	2,111	2,192	1,560
Content licensing	2,899	2,956	2,518
Home entertainment	1,048	1,287	1,182
Other	1,094	1,160	969
Total Filmed Entertainment	7,152	7,595	6,229
Total Theme Parks	5,683	5,443	4,946
Headquarters and Other	63	45	20
Eliminations[b]	(349)	(307)	(328)
Total NBCUniversal	35,761	32,836	31,276
Direct-to-consumer	3,632	—	—
Content	304	—	—
Advertising	651	—	—
Total Sky	4,587	—	—
Corporate and Other	1,403	1,193	886
Eliminations[b]	(2,387)	(2,070)	(2,003)
Total revenue	**$ 94,507**	**$ 85,029**	**$ 80,736**

(a) For 2018, 2017 and 2016, 2.7%, 2.8% and 2.9%, respectively, of Cable Communications segment revenue was derived from franchise and other regulatory fees.

(b) Included in Eliminations are transactions that our segments enter into with one another. See Note 2 for a description of these transactions.

We operate primarily in the United States, but also in select international markets primarily in Europe and Asia. The table below summarizes revenue by geographic location.

Year ended December 31 (in millions)	2018	2017	2016
United States	$ 82,233	$ 77,246	$ 74,212
Foreign	12,274	7,783	6,524
Total revenue	**$ 94,507**	**$ 85,029**	**$ 80,736**

No single customer accounted for a significant amount of revenue in any period presented.

Cable Communications Segment

Residential

Our Cable Communications segment generates revenue from residential customers that subscribe to our high-speed internet, video, voice, and security and automation services, which we market individually and as bundled services at a discounted rate in the

United States. Revenue from residential customers that purchase bundled services at a discounted rate is allocated between the separate services based on the respective stand-alone selling prices. The stand-alone selling prices are determined based on the current prices at which we separately sell the cable services. Significant judgment is used to determine performance obligations that should be accounted for separately and the allocation of revenue when services are combined in a bundle. Revenue related to our security and automation services is reported in other revenue.

We recognize revenue from residential cable services as the services are provided on a monthly basis. Subscription rates and related charges vary according to the services and features customers receive. Customers are typically billed in advance and pay on a monthly basis. Installation fees are deferred and recognized as revenue over the period of benefit to the customer, which is less than a year for residential customers. While a portion of our residential customers are subject to contracts for their cable services, which are typically 2 years in length, based on our evaluation of the terms of these contracts, we recognize revenue for these cable services on a basis that is consistent with our customers that are not subject to contracts. Our cable services generally involve customer premise equipment, such as set-top boxes, cable modems and wireless gateways. The timing and pattern of recognition for customer premise equipment revenue are consistent with those of our residential cable services. Sales commissions related to our residential customers are expensed as incurred, as the related period of benefit is less than a year.

Under the terms of our cable franchise agreements, we are generally required to pay the cable franchising authority an amount based on our gross video revenue. We generally pass these and other similar fees through to our cable services customers and classify these fees in the respective cable service revenue, with the corresponding costs included in other operating and administrative expenses.

Business Services

Our Cable Communications segment generates revenue from business customers that subscribe to a variety of products and services. Our small business services offerings primarily include high-speed internet services, as well as voice and video services, similar to those that we provide to our residential customers, and also include cloud-based solutions that provide file sharing, online backup and web conferencing, among other features. We also offer Ethernet network services that connect multiple locations and provide higher downstream and upstream speed options to medium-sized customers and larger enterprises, as well as advanced voice services. In addition, we provide cellular backhaul services to mobile network operators to help these customers manage their network bandwidth.

Recently, we have expanded our enterprise service offerings to include a software-defined networking product and our managed solutions business to offer enterprise customers support related to Wi-Fi networks, router management, network security, business continuity risks and other services. We primarily offer our enterprise service offerings to Fortune 1000 companies and other large enterprises with multiple locations both within and outside of our cable distribution footprint where we have agreements with other companies to use their networks to provide coverage.

We recognize revenue from business services as the services are provided on a monthly basis. Substantially all of our business customers are initially under contracts, with terms typically ranging from 2 years for small and medium-sized businesses to up to 5 years for larger enterprises. At any given time, the amount of future revenue to be earned related to fixed pricing under existing agreements is equal to approximately half of our annual business services revenue, of which the substantial majority will be recognized within 2 years. Customers with contracts may only discontinue service in accordance with the terms of their contracts. We receive payments from business customers based on a billing schedule established in our contracts, which is typically on a monthly basis. Installation revenue related to our business services customers and sales commissions are generally deferred and recognized over the respective contract terms.

Advertising

Our Cable Communications segment generates revenue from the sale of advertising and technology, tools and solutions relating to advertising businesses. As part of our distribution agreements with cable networks, we generally receive an allocation of scheduled advertising time that we sell to local, regional and national advertisers. In most cases, the available advertising units are sold by our sales force. We also represent the advertising sales efforts of other multichannel video providers in some markets. Since we are acting as the principal in these arrangements, we record the advertising that is sold in advertising revenue and the fees paid to multichannel video providers in other operating and administrative expenses. In some cases, we work with representation firms as an extension of our sales force to sell a portion of the advertising units allocated to us and record the revenue net of agency commissions. In addition, we generate revenue from the sale of advertising on digital platforms. We enter into advertising arrangements with customers and have determined that a contract exists once all terms and conditions are agreed upon, typically when the number of advertising units is specifically identified and the timing of airing is scheduled. Advertisements are generally aired or viewed within one year once all terms and conditions are agreed upon. Advertising revenue from these arrangements is recognized in the period in which advertisements are aired or viewed. Payment terms vary by contract, although terms generally require payment within 30 to 60 days from when advertisements are aired or viewed. In addition, our advertising business also

provides technology, tools, data-driven services and marketplace solutions to customers in the media industry, which allows advertisers to more effectively engage with their target audiences. Revenue earned in this manner is recognized when services are provided.

NBCUniversal Segments

Distribution

Our Cable Networks segment generates distribution revenue from the distribution of our cable network programming to traditional and virtual multichannel video providers. Our Broadcast Television segment generates distribution revenue from the fees received under retransmission consent agreements and associated fees received from NBC-affiliated local broadcast television stations.

Distribution revenue is accounted for as a license of functional intellectual property and is recognized as programming is provided on a monthly basis, generally under multiyear agreements. Monthly fees received under distribution agreements with multichannel video providers are generally based on the number of subscribers. Payment terms and conditions vary by contract type, although terms generally include payment within 30 to 60 days.

Advertising

Our Cable Networks and Broadcast Television segments generate advertising revenue from the sale of advertising on our cable and broadcast networks, our owned local broadcast television stations and various digital properties.

We enter into advertising arrangements with customers and have determined that a contract exists once all terms and conditions are agreed upon, typically when the number of advertising units is specifically identified and the timing of airing is scheduled. Advertisements are generally aired or viewed within one year once all terms are agreed upon. Advertising revenue is recognized, net of agency commissions, in the period in which advertisements are aired or viewed and payment occurs thereafter, with payment generally required within 30 days. In some instances, we guarantee audience ratings for the advertisements. To the extent there is a shortfall in contracts where the ratings were guaranteed, a portion of the revenue is deferred until the shortfall is settled, typically by providing additional advertising units generally within one year of the original airing.

Theatrical

Our Filmed Entertainment segment generates theatrical revenue from the worldwide theatrical release of our produced and acquired films for exhibition in movie theaters. Theatrical revenue is affected by the timing, nature and number of films released in movie theaters and their acceptance by audiences. It is also affected by the number of exhibition screens, ticket prices, the percentage of ticket sale retention by the exhibitors and the popularity of competing films at the time our films are released. We recognize theatrical revenue as the films are viewed and exhibited in theaters and payment generally occurs within 30 days after exhibition.

Content Licensing

Our Cable Networks, Broadcast Television and Filmed Entertainment segments generate revenue from the licensing of our owned film and television content in the United States and internationally to cable, broadcast and premium networks and subscription video on demand services. Our content licensing agreements generally include fixed pricing and span multiple years. For example, following a film's theatrical release, our Filmed Entertainment segment may license the exhibition rights of a film to different customers over multiple successive distribution windows.

We recognize revenue when the content is delivered and available for use by the licensee. When the term of an existing agreement is renewed or extended, we recognize revenue at the later of when the content is available or when the renewal or extension period begins. Payment terms and conditions vary by contract type, although payments are generally collected over the license term. The amount of future revenue to be earned related to fixed pricing under existing agreements primarily relates to our Filmed Entertainment segment, which at any given time equals approximately 1 to 2 years of our annual Filmed Entertainment content licensing revenue. The majority of this revenue will be recognized within 2 years. This amount may fluctuate from period to period depending on the timing of the releases and the availability of content under existing agreements and may not represent the total content licensing revenue expected to be recognized as it does not include revenue from future agreements or from variable pricing or optional purchases under existing agreements.

For our content licensing agreements that include variable pricing, such as pricing based on the number of subscribers to a subscription video on demand service sold by our customers, we generally recognize revenue as our customers sell to their subscribers.

Home Entertainment

Our Filmed Entertainment segment generates revenue from the sale of our produced and acquired films on standard-definition digital video discs and Blu-ray discs (together, "DVDs") and through digital distribution services. Our Cable Networks and Broadcast Television networks also generate revenue from the sale of owned programming on DVDs and through digital distribution services, which is reported in other revenue. We generally recognize revenue from DVD sales, net of estimated returns and customer incentives, on the date that DVDs are delivered to and made available for sale by retailers. Payment terms generally include payment within 60 to 90 days from delivery to the retailer.

Theme Parks

Our Theme Parks segment generates revenue primarily from ticket sales and guest spending at our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Guest spending includes in-park spending on food, beverages and merchandise. We recognize revenue from theme park ticket sales when the tickets are used, generally within a year from the date of purchase. For annual passes, we generally recognize revenue on a straight-line basis over the period the pass is available to be used. We recognize revenue from guest spending at the point of sale.

Sky Segment

Direct-to-Consumer

The majority of Sky's revenue is direct-to-consumer, which primarily includes subscription revenue relating to the sale of video services to residential and business customers. Sky also provides high-speed internet, voice and wireless phone services in select countries. Generally, all of our residential customers are initially under contracts, with terms typically ranging from rolling monthly to 2 years, depending on the product and territory, and may only discontinue service in accordance with the terms of their contracts. Subscription rates and related charges vary according to the services and features customers receive and the types of equipment they use. Sky's video, high-speed internet, voice and wireless phone services generally may be sold individually or in bundles. We recognize revenue from video, high-speed internet, voice and wireless phone services as the services are provided on a monthly basis. At any given time, the amount of future revenue to be earned related to existing agreements is equal to less than half of our annual subscription revenue, which generally will be recognized within 2 years.

Content

Sky's content revenue includes revenue from the distribution of its channels on third-party platforms and the licensing of owned programming to third-party video providers. Refer to the NBCUniversal segment discussion of distribution and content licensing revenue for accounting policies for these types of arrangements.

Advertising

Sky sells advertising and sponsorships across its owned channels and where it represents the sales efforts of third-party channels. Sky also sells targeted advertising in the U.K., Ireland and Italy, and generates revenue from online and mobile advertising and advertising across its On Demand services. Advertising revenue is recognized when the advertising is aired or viewed. Since Sky is acting as the principal in the arrangements where it represents the sales efforts of third parties, we record the advertising that is sold in advertising revenue and the fees paid to the third-party channels in other operating and administrative expenses.

Consolidated Balance Sheet

The following tables summarize our accounts receivable and other balances that are not separately presented in our consolidated balance sheet that relate to the recognition of revenue and collection of the related cash, as well as deferred costs associated with our contracts with customers.

December 31 (in millions)		**2018**		2017
Receivables, gross	**$**	**11,456**	$	9,122
Less: Allowance for doubtful accounts		**352**		288
Receivables, net	**$**	**11,104**	$	8,834

December 31 (in millions)		**2018**		2017
Noncurrent receivables (included in other noncurrent assets, net)	**$**	**1,399**	$	1,184
Contract acquisition and fulfillment costs (included in other noncurrent assets, net)	**$**	**991**	$	922
Noncurrent deferred revenue (included in other noncurrent liabilities)	**$**	**650**	$	497

In our Cable Communications and Sky segments, we manage credit risk by screening applicants through the use of internal customer information, identification verification tools and credit bureau data, as well as by offering customers the opportunity to establish automatic monthly payments. If a customer's account is delinquent, various measures are used to collect outstanding amounts, including termination of the customer's cable services.

Note 4: Programming and Production Costs

Video Distribution Programming Expenses

Programming expenses related to video services in Cable Communications and Sky are the fees we pay to license the programming we distribute to our video customers. Programming is generally acquired under multiyear distribution agreements, with rates typically based on the number of customers that receive the programming, channel positioning and the extent of distribution. From time to time, these contracts expire and programming continues to be provided under interim arrangements while the parties negotiate new contract terms, sometimes with effective dates that affect prior periods. While payments are typically made under the prior contract's terms, the amount of programming expenses recorded during the interim arrangement is based on our estimate of the ultimate contract terms expected to be negotiated. Differences between actual amounts determined upon resolution of negotiations and amounts recorded during these interim arrangements are recorded in the period of resolution.

When we receive incentives from a cable network for the licensing of its programming, we defer a portion of these incentives, which are included in other current and noncurrent liabilities, and recognize them over the term of the contract as a reduction to programming expenses.

Film and Television Costs

Our Cable Networks, Broadcast Television, Filmed Entertainment and Sky segments produce owned content or acquire the rights to programming from third parties, which are described as film and television costs and programming rights, respectively.

December 31 (in millions)		**2018**		2017
Film Costs:				
Released, less amortization	**$**	**1,600**	$	1,734
Completed, not released		**144**		50
In production and in development		**1,063**		1,149
		2,807		2,933
Television Costs:				
Released, less amortization		**2,289**		2,260
In production and in development		**953**		818
		3,242		3,078
Programming rights, less amortization		**5,534**		2,689
		11,583		8,700
Less: Current portion of programming rights		**3,746**		1,613
Film and television costs	**$**	**7,837**	$	7,087

Based on our current estimates of the total remaining revenue from all sources ("ultimate revenue"), in 2019 we expect to amortize approximately $1.6 billion of film and television costs associated with our original film and television productions that have been released, or are completed and have not been released. Through 2021, we expect to amortize approximately 83% of unamortized film and television costs for our released productions, excluding amounts allocated to acquired libraries.

As of December 31, 2018, acquired film and television libraries, which are included within the "released, less amortization" captions in the table above, had remaining unamortized costs of $396 million. These costs are generally amortized over a period not to exceed 20 years, and approximately 48% of these costs are expected to be amortized through 2021.

Capitalization of Film and Television Costs

We capitalize film and television production costs, including direct costs, production overhead, print costs, development costs and interest. We amortize capitalized film and television production costs, including acquired libraries, and accrue costs associated with participation and residual payments to programming and production expenses. We generally record the amortization and the accrued costs using the individual film forecast computation method, which amortizes the costs in the same ratio as the associated ultimate revenue. Estimates of ultimate revenue and total costs are based on anticipated release patterns, public acceptance and historical results for similar productions. Unamortized film and television production costs, including acquired libraries, are stated

at the lower of unamortized cost or fair value. We do not capitalize costs related to the distribution of a film in movie theaters or the licensing or sale of a film or television production, which primarily include costs associated with marketing and distribution.

In determining the method of amortization and estimated life of an acquired film or television library, we generally use the method and the life that most closely follow the undiscounted cash flows over the estimated life of the asset.

When an event or a change in circumstance occurs that was known or knowable as of the balance sheet date and that indicates the fair value of a film is less than its unamortized costs, we determine the fair value of the film and record an impairment charge for the amount by which the unamortized capitalized costs exceed the film's fair value. The estimated fair value of a production is based on Level 3 inputs that primarily use an analysis of future expected cash flows. Adjustments to capitalized film production costs were not material in any of the periods presented.

We may enter into cofinancing arrangements with third parties to jointly finance or distribute certain of our film productions. Cofinancing arrangements can take various forms, but in most cases involve the grant of an economic interest in a film to an investor. The number of investors and the terms of these arrangements can vary, although investors generally assume the full risks and rewards for the portion of the film acquired in these arrangements. We account for the proceeds received from a third-party investor under these arrangements as a reduction to our capitalized film costs. Under these arrangements, the investor owns an undivided copyright interest in the film, and therefore in each period we record either a charge or a benefit to programming and production expenses to reflect the estimate of the third-party investor's interest in the profit or loss of the film. The estimate of the third-party investor's interest in the profit or loss of a film is determined using the ratio of actual revenue earned to date to the ultimate revenue expected to be recognized over the film's useful life.

We capitalize the costs of programming content that we license but do not own, including rights to multiyear, live-event sports programming, at the earlier of when payments are made for the programming or when the license period begins and the content is made available for use. We amortize capitalized programming costs as the associated programs are broadcast. We generally amortize multiyear, live-event sports programming rights using the ratio of the current period revenue to the estimated ultimate revenue or under the terms of the contract.

Programming costs are recorded at the lower of unamortized cost or net realizable value on a program by program, package, channel or daypart basis. A daypart is an aggregation of programs broadcast during a particular time of day or programs of a similar type. Programming acquired by our Cable Networks segment is primarily tested on a channel basis for impairment, whereas programming acquired by our Broadcast Television segment is tested on a daypart basis. If we determine that the estimates of future cash flows are insufficient or if there is no plan to broadcast certain programming, we recognize an impairment charge to programming and production expenses.

Note 5: Income Taxes

Components of Income Tax Expense (Benefit)

Year ended December 31 (in millions)		**2018**		2017		2016
Current Expense (Benefit):						
Federal	**$**	**2,026**	$	2,411	$	3,190
State		**639**		277		480
Foreign		**425**		389		194
		3,090		3,077		3,864
Deferred Expense (Benefit):						
Federal		**546**		(10,651)		1,183
State		**(167)**		11		153
Foreign		**(89)**		(6)		98
		290		(10,646)		1,434
Income tax expense (benefit)	**$**	**3,380**	$	(7,569)	$	5,298

Comcast Corporation

Our income tax expense (benefit) differs from the federal statutory amount because of the effect of the items detailed in the table below.

Year ended December 31 (in millions)		2018		2017		2016
Federal tax at statutory rate	$	**3,201**	$	5,374	$	5,014
State income taxes, net of federal benefit		**212**		299		373
Foreign income taxed at different rates		**147**		70		65
Nontaxable income attributable to noncontrolling interests		**(20)**		(45)		(128)
Adjustments to uncertain and effectively settled tax positions, net		**144**		(62)		24
Accrued interest on uncertain and effectively settled tax positions, net		**29**		3		17
Excess tax benefits recognized on share-based compensation		**(75)**		(297)		—
Federal tax legislation		**(120)**		(12,682)		—
Other		**(138)**		(229)		(67)
Income tax expense (benefit)	$	**3,380**	$	(7,569)	$	5,298

We base our provision for income taxes on our current period income, changes in our deferred income tax assets and liabilities, income tax rates, changes in estimates of our uncertain tax positions, tax planning opportunities available in the jurisdictions in which we operate and following the adoption of new accounting guidance related to share-based compensation in 2017, excess tax benefits or deficiencies that arise when the tax consequences of share-based compensation differ from amounts previously recognized in the statement of income. We recognize deferred tax assets and liabilities when there are temporary differences between the financial reporting basis and tax basis of our assets and liabilities and for the expected benefits of using net operating loss carryforwards. When a change in the tax rate or tax law has an impact on deferred taxes, we apply the change based on the years in which the temporary differences are expected to reverse. We record the change in our consolidated financial statements in the period of enactment.

The determination of the income tax consequences of a business combination includes identifying the tax basis of assets and liabilities acquired and any contingencies associated with uncertain tax positions assumed or resulting from the business combination. Deferred tax assets and liabilities related to temporary differences of an acquired entity are recorded as of the date of the business combination and are based on our estimate of the ultimate tax basis that will be accepted by the various tax authorities. We record liabilities for contingencies associated with prior tax returns filed by the acquired entity based on criteria set forth in the appropriate accounting guidance. We adjust the deferred tax accounts and the liabilities periodically to reflect any revised estimated tax basis and any estimated settlements with the various tax authorities. The effects of these adjustments are recorded to income tax expense (benefit).

From time to time, we engage in transactions in which the tax consequences may be subject to uncertainty. In these cases, we evaluate our tax position using the recognition threshold and the measurement attribute in accordance with the accounting guidance related to uncertain tax positions. Examples of these transactions include business acquisitions and dispositions, including consideration paid or received in connection with these transactions, certain financing transactions, and the allocation of income among state and local tax jurisdictions. Significant judgment is required in assessing and estimating the tax consequences of these transactions. We determine whether it is more likely than not that a tax position will be sustained on examination, including the resolution of any related appeals or litigation processes, based on the technical merits of the position. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to be recognized in our consolidated financial statements. We classify interest and penalties, if any, associated with our uncertain tax positions as a component of income tax expense (benefit).

Current and deferred foreign income taxes are incurred primarily by Sky's and NBCUniversal's foreign subsidiaries. In 2018, 2017 and 2016, we had foreign income before taxes of $855 million, $1 billion and $871 million, respectively, on which foreign income tax expense (benefit) was recorded.

Sky Acquisition

We recorded a $1.9 billion increase in deferred income tax liabilities in connection with the acquisition of Sky, which were primarily related to foreign temporary differences associated with intangible assets and net operating losses, and were included in the preliminary allocation of purchase price. Although it operates primarily outside the United States, Sky will be included in certain of our consolidated state tax returns, which impacted our effective tax rates in those jurisdictions. As a result, we also recorded a $244 million net decrease in the deferred state tax liability, net of federal benefit, on our existing temporary differences, which was included in income tax expense in the fourth quarter of 2018.

Tax Reform

On December 22, 2017, new federal tax reform legislation was enacted in the United States, resulting in significant changes from previous tax law. The 2017 Tax Act reduced the federal corporate income tax rate to 21% from 35% effective January 1, 2018. The rate change, along with certain immaterial changes in tax basis resulting from the 2017 Tax Act, resulted in a reduction of our net deferred tax liabilities of $12.4 billion and a corresponding deferred income tax benefit in 2017. Our federal income tax expense for periods beginning in 2018 was based on the new rate.

The 2017 Tax Act also changed the taxation of foreign earnings, and companies generally are not subject to United States federal income taxes upon the receipt of dividends from foreign subsidiaries and are not permitted foreign tax credits related to such dividends. Beginning in 2018, in general, we no longer record United States federal income tax on our share of the income of our foreign subsidiaries, and we no longer record a benefit for foreign tax credits related to that income. Upon enactment, we reversed $382 million of net deferred tax liabilities related to our cumulative undistributed foreign earnings and deferred tax assets for related foreign tax credits, resulting in a corresponding net tax benefit in 2017. Additionally, upon enactment, there was a one-time deemed repatriation tax on undistributed foreign earnings and profits (the “transition tax”). We recognized tax expense of $101 million related to the transition tax in 2017.

The 2017 Tax Act also provides for immediate deduction of 100% of the costs of qualified property, including significant portions of our capital expenditures and film and television productions costs, that are incurred and the property placed in service during the period from September 27, 2017 to December 31, 2022. This provision will begin to phase down by 20% per year beginning January 1, 2023 and will be completely phased out as of January 1, 2027.

The adjustments to deferred tax assets and liabilities, and the liability related to the transition tax included provisional amounts estimated based on information available as of December 31, 2017. In 2018, we completed our analysis of the provisional items, resulting in immaterial adjustments primarily related to cumulative temporary differences and the one-time deemed repatriation tax on undistributed foreign earnings and profits.

In February 2018, the Bipartisan Budget Act of 2018 was enacted. As part of this legislation, various tax provisions that had expired on December 31, 2016 were retroactively extended to December 31, 2017, including the statute permitting the immediate deduction for certain film and television production costs. We recorded an income tax benefit of $128 million in the first quarter of 2018 as a result of the enactment of this legislation.

Components of Net Deferred Tax Liability

December 31 (in millions)		**2018**		2017
Deferred Tax Assets:				
Net operating loss carryforwards	**$**	**1,926**	$	481
Nondeductible accruals and other		**2,656**		2,092
Less: Valuation allowance		**632**		377
		3,950		2,196
Deferred Tax Liabilities:				
Differences between book and tax basis of property and equipment and intangible assets		**29,139**		25,223
Differences between book and tax basis of investments		**491**		466
Differences between book and tax basis of long-term debt		**604**		673
Differences between book and tax basis of foreign subsidiaries and undistributed foreign earnings		**85**		39
		30,319		26,401
Net deferred tax liability	**$**	**26,369**	$	24,205

Changes in our net deferred tax liability in 2018 that were not recorded as deferred income tax benefit (expense) are primarily related to increases of $1.9 billion related to acquisitions, including Sky, and $42 million associated with our purchase of a noncontrolling interest, and a decrease of $72 million associated with items included in other comprehensive income (loss). Our net deferred tax liability includes $15 billion related to cable franchise rights that will remain unchanged unless we recognize an impairment or dispose of a cable franchise or there is a change in the tax law. Additionally, we recorded an immaterial cumulative effect adjustment to retained earnings and accumulated other comprehensive income (loss) in 2018 as a result of the adoption of updated guidance that permitted companies to reclassify disproportionate tax effects recorded in accumulated other comprehensive income as a result of the 2017 Tax Act.

As of December 31, 2018, we had federal net operating loss carryforwards of $268 million, and various state net operating loss carryforwards, the majority of which expire in periods through 2038. As of December 31, 2018, we also had foreign net operating loss carryforwards of $6.6 billion related to the foreign operations of Sky and NBCUniversal, the majority of which can be carried

forward indefinitely. The determination of the realization of the state and foreign net operating loss carryforwards is dependent on our subsidiaries' taxable income or loss, apportionment percentages, redetermination from taxing authorities, and state and foreign laws that can change from year to year and impact the amount of such carryforwards. We recognize a valuation allowance if we determine it is more likely than not that some portion, or all, of a deferred tax asset will not be realized. As of December 31, 2018 and 2017, our valuation allowance was primarily related to state and foreign net operating loss carryforwards. The increase in the valuation allowance in 2018 was primarily related to the acquisition of Sky. As a result of the timing of the acquisition, the deferred tax assets and liabilities related to Sky are preliminary and subject to change, including our assessment of the realization of Sky's deferred tax assets of $1.5 billion related to net operating losses. We will finalize the amounts recognized as soon as possible as we obtain the information necessary to complete the analysis, but no later than one year from the acquisition date. See Note 8 for further information on the Sky acquisition.

Uncertain Tax Positions

Our liability for uncertain tax positions as of December 31, 2018 totaled $1.0 billion, which excludes the federal benefits on state tax positions that were recorded as deferred income taxes. Included in our liability for uncertain tax positions was $153 million related to tax positions of NBCUniversal and NBCUniversal Enterprise for which we have been indemnified by GE, their former parent company. We are indemnified by GE for any income tax liability attributable to the NBCUniversal contributed businesses for periods prior to the close of the NBCUniversal transaction in January 2011 and also for any income tax liability attributable to NBCUniversal Enterprise for periods prior to the date of the NBCUniversal redemption transaction in March 2013.

Reconciliation of Unrecognized Tax Benefits

(in millions)		**2018**		2017		2016
Gross unrecognized tax benefits, January 1	**$**	**1,497**	$	1,443	$	1,441
Additions based on tax positions related to the current year		**229**		121		74
Additions based on tax positions related to prior years		**125**		319		72
Additions from acquired subsidiaries		**130**		—		13
Reductions for tax positions of prior years		**(346)**		(251)		(66)
Reductions due to expiration of statutes of limitations		**(75)**		(70)		(44)
Settlements with tax authorities		**(17)**		(65)		(47)
Gross unrecognized tax benefits, December 31		**1,543**		1,497		1,443
Positions paid		**(531)**		(688)		(340)
Liability for uncertain tax positions	**$**	**1,012**	$	809	$	1,103

Our liability for uncertain tax positions represents the amounts recorded for potential payment obligations. Our gross unrecognized tax benefits also include amounts related to positions for which tax has been assessed and paid. If we were to recognize our gross unrecognized tax benefits in the future, $1.1 billion, which includes amounts indemnified by GE, would impact our effective tax rate and the remaining amount would increase our deferred income tax liability. The amount and timing of the recognition of any such tax benefit is dependent on the completion of examinations of our tax filings by the various tax authorities and the expiration of statutes of limitations. It is reasonably possible that certain tax contests could be resolved within the next 12 months that may result in a decrease in our effective tax rate.

As of December 31, 2018 and 2017, our accrued interest associated with our liability for uncertain tax positions was $203 million and $173 million, respectively. As of December 31, 2018 and 2017, $56 million and $43 million, respectively, of these amounts were related to tax positions of NBCUniversal and NBCUniversal Enterprise for which we have been indemnified by GE.

The IRS has completed its examination of our income tax returns for all years through 2016. Various states are examining our state tax returns and the tax years of those tax returns currently under examination vary by state, with most of the periods relating to tax years 2000 and forward. Various foreign jurisdictions are examining our tax returns and the tax years of those tax returns currently under examination vary by country, with most of the periods relating to tax years 2010 and forward.

Note 6: Earnings Per Share

Computation of Diluted EPS

Year ended December 31 (in millions, except per share data)	2018 Net Income Attributable to Comcast Corporation	2018 Shares	2018 Per Share Amount	2017 Net Income Attributable to Comcast Corporation	2017 Shares	2017 Per Share Amount	2016 Net Income Attributable to Comcast Corporation	2016 Shares	2016 Per Share Amount
Basic EPS attributable to Comcast Corporation shareholders	**$ 11,731**	**4,584**	**$ 2.56**	$ 22,735	4,708	$ 4.83	$ 8,678	4,819	$ 1.80
Effect of dilutive securities:									
Assumed exercise or issuance of shares relating to stock plans		**56**			78			56	
Diluted EPS attributable to Comcast Corporation shareholders	**$ 11,731**	**4,640**	**$ 2.53**	$ 22,735	4,786	$ 4.75	$ 8,678	4,875	$ 1.78

Diluted earnings per common share attributable to Comcast Corporation shareholders ("diluted EPS") considers the impact of potentially dilutive securities using the treasury stock method. Our potentially dilutive securities include potential common shares related to our stock options and our restricted share units ("RSUs"). Diluted EPS excludes the impact of potential common shares related to our stock options in periods in which the combination of the option exercise price and the associated unrecognized compensation expense is greater than the average market price of our common stock. The amount of potential common shares related to our share-based compensation plans that were excluded from diluted EPS because their effect would have been antidilutive was not material in any of the periods presented.

Note 7: Long-Term Debt

Long-Term Debt Outstanding

December 31 (in millions)	Weighted-Average Interest Rate as of December 31, 2018	2018	2017
Commercial paper	2.86%	**$ 675**	$ 903
Revolving bank credit facilities[b]	1.13%	**606**	—
Term loans[a]	1.85%	**13,268**	3,880
Senior notes with maturities of 5 years or less, at face value[b]	3.48%	**26,331**	15,680
Senior notes with maturities between 5 and 10 years, at face value[b]	3.64%	**26,727**	13,277
Senior notes with maturities greater than 10 years, at face value[b][c]	4.68%	**45,030**	31,838
Other, including capital lease obligations	—	**808**	921
Debt issuance costs, premiums, discounts, fair value adjustments for acquisition accounting and hedged positions, net[d]	—	**(1,702)**	(1,943)
Total debt	3.77% [d]	**111,743**	64,556
Less: Current portion		**4,398**	5,134
Long-term debt		**$ 107,345**	$ 59,422

(a) Term loans consist of the following, with foreign currency denominated borrowings translated using the exchange rates as of each date:

- Comcast: borrowings associated with the Sky transaction of £5.6 billion as of December 31, 2018 (see Note 8)
- Universal Studios Japan: ¥390 billion and ¥435 billion as of December 31, 2018 and 2017, respectively
- Universal Beijing Resort: ¥4 billion RMB as of December 31, 2018 (see Note 8)

(b) The December 31, 2018 amounts include an aggregate of approximately $10.7 billion of Sky debt consolidated by Comcast. The Sky debt as of December 31, 2018 included $3.2 billion of senior notes, €4.9 billion of senior notes and £1.1 billion of senior notes that will mature between 2019 and 2035. The Sky senior notes were recorded at fair value as of October 9, 2018.

(c) The December 31, 2018 and 2017 amounts include £625 million of 5.50% notes due 2029.

(d) Includes the effects of our derivative financial instruments.

As of December 31, 2018 and 2017, our debt had an estimated fair value of $114.1 billion and $71.7 billion, respectively. The estimated fair value of our publicly traded debt was primarily based on Level 1 inputs that use quoted market values for the debt. The estimated fair value of debt for which there are no quoted market prices was based on Level 2 inputs that use interest rates available to us for debt with similar terms and remaining maturities.

We use cross-currency swaps for foreign currency denominated debt obligations when those obligations are denominated in a currency other than the functional currency. Cross-currency swaps effectively convert foreign currency denominated debt to debt denominated in the functional currency in order to hedge the risk that the cash flows related to annual interest payments and the payment of principal at maturity may be adversely affected by fluctuations in currency exchange rates. The gains and losses on these cross-currency swaps generally offset changes in the underlying value of the related exposures. As of December 31, 2018 and 2017, we had cross-currency swaps on $5.3 billion and $0.8 billion notional amount of our foreign currency denominated debt, respectively. As of December 31, 2018 and 2017, the aggregate fair value of these cross-currency swaps was a net liability of $23 million and $80 million, respectively.

We are also exposed to foreign currency exchange risk on the consolidation of our foreign operations. Beginning in 2018, we use foreign currency denominated debt and cross-currency swaps to hedge our net investments in certain of these subsidiaries. As of December 31, 2018, we had $15.6 billion notional amount of our foreign currency denominated debt and cross-currency swaps designated as net investment hedges in our foreign subsidiaries.

Principal Maturities of Debt

(in millions)		
2019	$	4,413
2020	$	7,961
2021	$	11,548
2022	$	8,741
2023	$	7,818
Thereafter	$	72,964

2018 Debt Borrowings and Repayments

In 2018, we had borrowings of $44.8 billion that primarily included $27 billion of proceeds from the issuance of senior unsecured fixed and floating rate notes in October 2018, $8.7 billion of proceeds from sterling-denominated unsecured term loans and $3 billion of proceeds from the dollar-denominated unsecured term loan which were used to fund the acquisition of Sky, and $4 billion of proceeds from the issuance of senior unsecured fixed rate notes in February 2018.

In 2018, we made repayments of $8.8 billion of debt.

Revolving Bank Credit Facilities

As of December 31, 2018 and 2017, we had a $7.6 billion and $7.0 billion, respectively, revolving credit facility due 2021 with a syndicate of banks (“Comcast revolving credit facility”) that may be used for general corporate purposes. We may increase the commitment under the Comcast revolving credit facility up to a total of $10 billion, as well as extend the expiration date to a date no later than 2023, subject to approval of the lenders. In addition, as of December 31, 2018 and 2017, NBCUniversal Enterprise had a $1.6 billion and $1.5 billion, respectively, revolving credit facility due 2021 with a syndicate of banks (“NBCUniversal Enterprise revolving credit facility”) that may be used for general corporate purposes. We may increase the commitment under the NBCUniversal Enterprise revolving credit facility up to a total of $2 billion, as well as extend the expiration date to a date no later than 2023, subject to approval of the lenders. The interest rates on the revolving credit facilities consist of a base rate plus a borrowing margin that is determined based on Comcast’s credit rating. As of December 31, 2018, the borrowing margin for borrowings based on the London Interbank Offered Rate was 1.00%. As of December 31, 2018, Sky had a £1 billion revolving credit facility due 2021 with a syndicate of banks (“Sky revolving credit facility”) that may be used for general corporate purposes. The interest rate on the Sky revolving credit facility consists of a base rate plus a borrowing margin that is determined based on Sky’s credit rating. Each of the revolving credit facilities requires that we maintain certain financial ratios based on the respective debt and EBITDA of each entity, as defined in the credit facility. The Sky revolving credit facility also contains a ratio of EBITDA to net interest payable, as defined in the credit facility. We were in compliance with all financial covenants for all periods presented.

There were no amounts outstanding under the Comcast or NBCUniversal Enterprise revolving credit facilities as of December 31, 2018 or 2017. As of December 31, 2018, £475 million (approximately $606 million using exchange rates as of December 31, 2018) was outstanding under the Sky revolving credit facility. As of December 31, 2018, amounts available under our consolidated revolving credit facilities, net of amounts outstanding under our commercial paper programs and outstanding letters of credit,

totaled $9.2 billion, which included $942 million and $670 million available under the NBCUniversal Enterprise and Sky revolving credit facilities, respectively.

Commercial Paper Programs

Our commercial paper programs provide a lower-cost source of borrowing to fund our short-term working capital requirements. In June 2017, we increased the Comcast and NBCUniversal Enterprise commercial paper programs to $7.0 billion and $1.5 billion, respectively, to coincide with the borrowing capacities then existing under the Comcast and NBCUniversal Enterprise revolving credit facilities. As of December 31, 2018, there was no amount outstanding under the Comcast commercial paper program. As of December 31, 2017, $903 million was outstanding under the Comcast commercial paper program. As of December 31, 2018, NBCUniversal Enterprise had $675 million face amount of commercial paper outstanding. As of December 31, 2017, NBCUniversal Enterprise had no commercial paper outstanding.

Letters of Credit and Bank Guarantees

As of December 31, 2018, we and certain of our subsidiaries had undrawn irrevocable standby letters of credit and bank guarantees totaling $463 million to cover potential fundings under various agreements.

Cross-Guarantee Structure

Comcast, Comcast Cable and NBCUniversal have fully and unconditionally guaranteed each other's debt securities, including the Comcast revolving credit facility and the term loans borrowed and senior notes issued in connection with financing the acquisition of Sky. As of December 31, 2018, the principal amount of debt securities within the cross-guarantee structure totaled $94.2 billion, of which $26.9 billion will mature within the next 5 years.

Comcast and Comcast Cable fully and unconditionally guarantee NBCUniversal Enterprise's $3.0 billion aggregate principal amount of senior notes, its revolving credit facility and its commercial paper program. NBCUniversal does not guarantee the NBCUniversal Enterprise senior notes, revolving credit facility, commercial paper program or its $725 million liquidation preference of Series A cumulative preferred stock.

Comcast Parent provides a full and unconditional guarantee of the Universal Studios Japan yen-denominated ¥390 billion (approximately $3.5 billion using exchange rates as of December 31, 2018) term loans with a final maturity of March 2022. None of Comcast, Comcast Cable nor NBCUniversal guarantee the $10.7 billion of Sky outstanding indebtedness or the $569 million of Universal Beijing Resort term loans.

Note 8: Significant Transactions

2018

Sky Transaction

On October 9, 2018, in connection with our offer to acquire the share capital of Sky, we acquired a controlling interest in Sky through a series of purchases of Sky shares at our offer price of £17.28 per Sky share. In the fourth quarter of 2018, we acquired the remaining Sky shares and now own 100% of Sky's equity interests. Total cash consideration was £30.2 billion (approximately $39.4 billion using the exchange rates on the purchase dates).

Sky is one of Europe's leading entertainment companies, which primarily includes a direct-to-consumer business, providing video, high-speed internet, voice and wireless phone services, and a content business, operating entertainment networks, the Sky News broadcast network and Sky Sports networks. We believe the combination of our global communications, media and entertainment businesses will enable the delivery of innovations in technology and a strengthened content portfolio to an expanded worldwide audience across multiple platforms.

To finance the acquisition, we issued $27.0 billion aggregate amount of senior unsecured fixed and floating rate notes that will mature between 2020 and 2058 and we borrowed £6.6 billion ($8.7 billion using the exchange rates on the dates of borrowing) under a £7.0 billion unsecured sterling-denominated term loan credit agreement and $3.0 billion under a $3.0 billion unsecured dollar-denominated term loan credit agreement. The unsecured term loans and senior notes are guaranteed by Comcast Cable and NBCUniversal. The remaining amount of consideration was funded using cash on hand.

Preliminary Allocation of Purchase Price

We have applied acquisition accounting to Sky. Sky's results of operations are included in our consolidated results of operations since the acquisition date and are reported in our Sky segment. The net assets of Sky were recorded at their estimated fair value using Level 3 inputs. In valuing acquired assets and liabilities, fair value estimates are based on, but are not limited to, future expected cash flows, market rate assumptions for contractual obligations and appropriate discount rates. The estimated values are not yet final and are subject to change, and the changes could be significant. We will finalize the amounts recognized as soon as possible as we obtain the information necessary to complete the analysis, but no later than one year from the acquisition date.

The table below presents the preliminary allocation of the all-cash purchase price of £30.2 billion, or $39.4 billion, to the assets and liabilities of Sky as a result of the transaction.

Preliminary Allocation of Purchase Price

(in millions)		
Consideration transferred	$	39,387
Preliminary allocation of purchase price		
Cash	$	1,283
Accounts receivable and other current assets		2,405
Film and television costs (See Note 4)		2,526
Property and equipment (See Note 11)		3,386
Intangible assets (See Note 12)		20,628
Accounts payable, accrued liabilities and other current liabilities		(5,791)
Long-term debt (See Note 7)		(11,215)
Deferred tax assets (liabilities), net (See Note 5)		(1,903)
Other noncurrent assets and (liabilities), net		(1,809)
Fair value of identifiable net assets acquired		9,510
Goodwill (See Note 12)	$	29,877

Intangible Assets

Finite-lived intangible assets primarily consist of customer relationships with a carrying amount of $11.8 billion and developed technology with a carrying amount of $1.8 billion, with estimated useful lives of between 4 and 18 years. Indefinite-lived assets consist of trade names with a carrying amount of $6.8 billion.

Goodwill

Goodwill consists primarily of intangible assets that do not qualify for separate recognition, including increased footprint, assembled workforce, noncontractual relationships and agreements. Since our allocation of the purchase price and estimated fair values of identifiable assets and liabilities is not yet final, the amount of the total goodwill is not yet final and is subject to change. The acquired goodwill is not expected to be deductible for tax purposes.

Acquisition-Related Costs

As a result of the Sky transaction, we have incurred incremental expenses including the U.K. share acquisition tax, success-based investment banker fees and fees to attorneys, accountants and other professional advisors, which are reflected in other operating and administrative expenses. We also incurred certain financing costs associated with our borrowings, which are reflected in interest expense. The table below presents the amounts related to these expenses included in our consolidated statement of income.

(in millions)		Year ended December 31, 2018
Other operating and administrative expenses	$	339
Interest expense	$	63

Actual and Unaudited Pro Forma Information

Our consolidated revenue and net income (loss) attributable to Comcast Corporation from October 9, 2018 to December 31, 2018 included $4.6 billion and $47.5 million, respectively, resulting from Sky's operations.

The following unaudited pro forma information has been presented as if the Sky transaction occurred on January 1, 2017. This information is based on historical results of operations, adjusted for allocation of purchase price and other acquisition accounting adjustments, and is not necessarily indicative of what the results would have been had we operated the business since January 1, 2017. For pro forma purposes, 2018 earnings were adjusted to exclude the acquisition-related costs noted above, and 2017 earnings

were adjusted to include these costs. No pro forma adjustments have been made for cost savings or synergies that have been or may be achieved by the combined businesses.

Year ended December 31 (in millions, except per share data)		2018		2017
Revenue	$	**109,518**	$	102,971
Net income attributable to Comcast Corporation	$	**11,365**	$	22,308
Basic earnings per common share attributable to Comcast Corporation shareholders	$	**2.48**	$	4.74
Diluted earnings per common share attributable to Comcast Corporation shareholders	$	**2.45**	$	4.65

Universal Beijing Resort

We entered into an agreement with a consortium of Chinese state-owned companies to build and operate a Universal theme park and resort in Beijing, China ("Universal Beijing Resort"). We own a 30% interest in Universal Beijing Resort and the construction is being funded through a combination of debt financing and equity contributions from the investors in accordance with their equity interests. The debt financing, which is being provided by a syndicate of Chinese financial institutions, contains certain financial and operating covenants and a maximum borrowing limit of ¥26.6 billion RMB (approximately $4 billion). The debt financing is secured by the assets of Universal Beijing Resort and the equity interests of the investors. As of December 31, 2018, Universal Beijing Resort had borrowed approximately $569 million under the financing agreement.

We have concluded that Universal Beijing Resort is a variable interest entity based on its governance structure, and we consolidate it because we have the power to direct activities that most significantly impact its economic performance. There are no liquidity arrangements, guarantees or other financial commitments between us and Universal Beijing Resort, and therefore our maximum risk of financial loss is our 30% interest. Universal Beijing Resort's results of operations are reported in our Theme Parks segment.

In March 2018, Universal Beijing Resort received initial equity investments through a combination of cash and noncash contributions from the investors. As of December 31, 2018, our consolidated balance sheet included assets, primarily including property and equipment, and liabilities of Universal Beijing Resort totaling $1.5 billion and $1.0 billion, respectively.

2017

FCC Spectrum Auction

On April 13, 2017, the Federal Communications Commission announced the results of its spectrum auction. In the auction, NBCUniversal relinquished its spectrum rights in the New York, Philadelphia and Chicago designated market areas ("DMAs") where NBC and Telemundo had overlapping spectrum. NBCUniversal received proceeds of $482 million in July 2017, which were recorded in other investing activities in our consolidated statement of cash flows. NBCUniversal recognized a pretax gain of $337 million in other operating gains in 2017. NBC and Telemundo stations share broadcast signals in these DMAs. In connection with the auction, we also acquired the rights to $1.7 billion of spectrum in the second quarter of 2017, which were recorded to other intangible assets, net. We had previously made a deposit of $1.8 billion to participate in the auction in 2016 and received a refund for amounts in excess of the purchase price in 2017.

Universal Studios Japan

On April 6, 2017, we acquired the remaining interests in Universal Studios Japan that we did not already own for $2.3 billion. The acquisition was funded through cash on hand and borrowings under our commercial paper program. Because we maintained control of Universal Studios Japan, the difference between the consideration transferred and the recorded value of the noncontrolling interests, as well as the related tax and accumulated other comprehensive income impacts, were recorded to additional paid-in capital.

2016

DreamWorks Animation

On August 22, 2016, we acquired all of the outstanding stock of DreamWorks Animation for $3.8 billion. DreamWorks Animation's stockholders received $41 in cash for each share of DreamWorks Animation common stock. DreamWorks Animation creates animated feature films, television series and specials, live entertainment, and related consumer products. The results of operations for DreamWorks Animation are reported in our Filmed Entertainment segment following the acquisition date.

Note 9: Recent Accounting Pronouncements

Revenue Recognition

In May 2014, the Financial Accounting Standards Board ("FASB") updated the accounting guidance related to revenue recognition. The updated accounting guidance provides a single, contract-based revenue recognition model to help improve financial reporting by providing clearer guidance on when an entity should recognize revenue and by reducing the number of standards to which an entity has to refer. The core principle of the new standard is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services.

We adopted the updated guidance on January 1, 2018 on a full retrospective basis, which required us to reflect the impact of the updated guidance for all periods presented. Upon adoption, we also implemented changes in our presentation of certain revenues and expenses, primarily in our Cable Communications segment.

The adoption of the new standard did not have a material impact on our consolidated results of operations or financial position for any period presented. The updated guidance also requires additional disclosures regarding the nature, timing and uncertainty of our revenue transactions. See Note 3 for additional information.

The tables below present the effects on our consolidated statement of income and balance sheet for the prior year periods presented.

Consolidated Statement of Income

Year ended December 31, 2017 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Revenue	$ 84,526	$ 503	$ 85,029
Total costs and expenses	$ 66,539	$ 472	$ 67,011
Operating income	$ 17,987	$ 31	$ 18,018
Net income attributable to Comcast Corporation	$ 22,714	$ 21	$ 22,735

Year ended December 31, 2016 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Revenue	$ 80,403	$ 333	$ 80,736
Total costs and expenses	$ 63,544	$ 361	$ 63,905
Operating income	$ 16,859	$ (28)	$ 16,831
Net income attributable to Comcast Corporation	$ 8,695	$ (17)	$ 8,678

Consolidated Balance Sheet

December 31, 2017 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Total current assets	$ 16,060	$ 283	$ 16,343
Film and television costs	$ 7,076	$ 11	$ 7,087
Other intangible assets, net	$ 18,779	$ (646)	$ 18,133
Other noncurrent assets, net	$ 3,489	$ 865	$ 4,354
Total assets	$ 186,949	$ 513	$ 187,462
Total current liabilities	$ 21,561	$ 432	$ 21,993
Deferred income taxes	$ 24,256	$ 3	$ 24,259
Other noncurrent liabilities	$ 10,904	$ 68	$ 10,972
Total equity	$ 69,449	$ 10	$ 69,459
Total liabilities and equity	$ 186,949	$ 513	$ 187,462

Cable Communications

A summary of the changes implemented for the Cable Communications segment is presented below.

Changes to Presentation of Revenue and Related Costs

- Revenue from our residential video services decreased with corresponding increases to high-speed internet and voice revenue due to a change in the allocation of revenue among our cable services included in a bundle that our residential customers purchase at a discount.

- Revenue from franchise and other regulatory fees, which was previously presented in other revenue, is now presented with the corresponding cable services. This resulted in increases to video, voice and business services revenue.
- Residential customer late fees are now presented in other revenue. These fees were previously presented as a reduction to other operating costs and expenses.
- Certain costs, including costs related to the fulfillment of contracts with customers, are now presented as other assets and the related costs are recognized over time in operating costs and expenses, which are comprised of total costs and expenses, excluding depreciation and amortization expense and other operating gains. These amounts were previously presented as intangible assets, and the expenses were previously presented in amortization expense. The payments related to these assets are now presented in net cash provided by operating activities rather than in cash paid for intangible assets in our consolidated statement of cash flows.

Changes to the Timing of Recognition of Revenue and Related Costs

- Revenue for upfront installation services that are not distinct and commission expenses are now recognized as revenue and operating costs and expenses, respectively, over a period of time rather than recognized immediately as they were previously. We recorded a deferred revenue liability related to upfront installation fees that are not distinct services, which required us to allocate the installation fees to the respective service. The installation fees are generally recognized as revenue over the period that the fee would influence a customer to renew their service. This period is less than a year for Cable Communications residential customers and the term of the related contract for business services customers. Incremental costs to obtain a contract with a customer, such as commissions for our business customers, are now deferred and recognized over the contract term. Sales commissions related to our Cable Communications residential customers are expensed as incurred as the related period of benefit is less than a year.

The tables below present the effects these changes had on our Cable Communications segment revenue, operating costs and expenses, and depreciation and amortization expense as a result of the adoption of updated guidance for the prior year periods. Previously reported amounts are based on amounts previously presented in the segment information footnote.

Year ended December 31, 2017 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Residential:			
High-speed internet	$ 14,769	$ 912	$ 15,681
Video	23,129	(255)	22,874
Voice	3,391	699	4,090
Business services	6,216	221	6,437
Advertising	2,257	193	2,450
Other	2,757	(1,219)	1,538
Total Cable Communications revenue	$ 52,519	$ 551	$ 53,070
Operating costs and expenses	$ 31,349	$ 653	$ 32,002
Depreciation and amortization expense	$ 8,143	$ (137)	$ 8,006

Year ended December 31, 2016 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Residential:			
High-speed internet	$ 13,532	$ 889	$ 14,421
Video	22,357	(153)	22,204
Voice	3,540	619	4,159
Business services	5,514	191	5,705
Advertising	2,476	150	2,626
Other	2,629	(1,167)	1,462
Total Cable Communications revenue	$ 50,048	$ 529	$ 50,577
Operating costs and expenses	$ 29,939	$ 624	$ 30,563
Depreciation and amortization expense	$ 7,670	$ (132)	$ 7,538

NBCUniversal Segments

The adoption of the updated guidance impacted the timing of recognition for some of our revenue contracts, primarily for content licensing agreements. As a result of the adoption of the updated guidance, when the term of an existing content licensing agreement is renewed or extended, revenue is not recognized until the date when the renewal or extension period begins. Under the prior guidance, revenue for the content licensing renewal period was recognized on the date that the renewal was agreed to contractually. This change resulted in delayed revenue recognition for content licensing renewals or extensions in our Cable Networks, Broadcast Television and Filmed Entertainment segments. This change also impacted the timing of the related amortization of our film and television costs and participations and residuals expenses. The adoption of the updated guidance did not have a material impact on the results of operations or financial position for the NBCUniversal segments.

Financial Assets and Financial Liabilities

In January 2016, the FASB updated the accounting guidance related to the recognition and measurement of financial assets and financial liabilities. The updated accounting guidance, among other things, requires that all nonconsolidated equity investments, except those accounted for under the equity method, be measured at fair value and the changes in fair value be recognized in net income. On January 1, 2018, we adopted the updated guidance prospectively along with a related clarifying update and as a result, we recorded an immaterial cumulative effect adjustment to retained earnings, accumulated other comprehensive income (loss) and investments. See Note 10 for additional information.

Restricted Cash

In November 2016, the FASB updated the accounting guidance related to restricted cash. The new standard requires that the statement of cash flows present the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents, and a reconciliation of that total to amounts presented on the balance sheet. We adopted the updated guidance on January 1, 2018 and as required applied the retrospective transition method. The adoption did not have a material impact for any period presented.

Leases

In February 2016, the FASB updated the accounting guidance related to leases. The updated accounting guidance requires lessees to recognize a right-of-use asset and a lease liability on the balance sheet for all leases with the exception of short-term leases. The asset and liability are initially measured based on the present value of committed lease payments. For a lessee, the recognition, measurement and presentation of expenses and cash flows arising from a lease do not significantly change from previous guidance. For a lessor, the accounting applied is also largely unchanged from previous guidance. We will adopt the updated accounting guidance in the first quarter of 2019 and prior periods will not be adjusted. We are currently in the process of determining the impact that the updated accounting will have on our consolidated financial statements. See Note 17 for a summary of our undiscounted minimum rental commitments under operating leases as of December 31, 2018.

Note 10: Investments

December 31 (in millions)		**2018**		2017
Equity method	**$**	**4,035**	$	3,546
Marketable equity securities		**341**		433
Nonmarketable equity securities		**1,805**		1,186
Other investments		**1,796**		1,785
Total investments		**7,977**		6,950
Less: Current investments		**94**		19
Noncurrent investments	**$**	**7,883**	$	6,931

Investment and Other Income (Loss), Net

Year ended December 31 (in millions)		**2018**		2017		2016
Equity in net income (losses) of investees, net	**$**	**(364)**	$	107	$	(104)
Realized and unrealized gains (losses) on equity securities, net		**(187)**		(17)		12
Other income (loss), net		**326**		331		529
Investment and other income (loss), net	**$**	**(225)**	$	421	$	437

Beginning January 1, 2018, in connection with our adoption of the updated accounting guidance related to the recognition and measurement of financial assets and financial liabilities (see Note 9), we updated the presentation and accounting policies for our

investments previously classified as fair value and cost method investments. The investment categories presented in the table above are based on the new guidance and updated policies, where applicable, are described below.

Equity Method

We use the equity method to account for investments in which we have the ability to exercise significant influence over the investee's operating and financial policies or in which we hold a significant partnership or limited liability company interest. Equity method investments are recorded at cost and are adjusted to recognize (1) our proportionate share of the investee's net income or loss after the date of investment, (2) amortization of the recorded investment that exceeds our share of the book value of the investee's net assets, (3) additional contributions made and dividends received, and (4) impairments resulting from other-than-temporary declines in fair value. For some investments, we record our share of the investee's net income or loss one quarter in arrears due to the timing of our receipt of such information. Gains or losses on the sale of equity method investments are recorded to other income (loss), net. If an equity method investee were to issue additional securities that would change our proportionate share of the entity, we would recognize the change, if any, as a gain or loss to other income (loss), net.

Atairos

On January 1, 2016, we established Atairos Group, Inc., a strategic company focused on investing in and operating companies in a range of industries and business sectors, both domestically and internationally. Atairos has a term of up to 12 years and is controlled by management companies led by our former CFO through interests that carry all of the voting rights. We are the only investor other than our former CFO and the other management company employees.

In February 2018, we amended our agreement with Atairos, which primarily increases our commitment to fund Atairos from up to $4 billion to up to $5 billion in the aggregate at any one time, subject to certain offsets. The amendment also increases our commitment to fund Atairos for a management fee from $40 million to $45 million annually, subject to certain annual adjustments. The management company investors have committed to fund from $50 million to $100 million, with at least $40 million to be funded by our former CFO, subject to his continued role with Atairos. Our economic interests do not carry voting rights and obligate us to absorb approximately 99% of any losses and they provide us the right to receive approximately 86% of any residual returns in Atairos, in either case on a cumulative basis.

We have concluded that Atairos is a VIE, that we do not have the power to direct the activities that most significantly impact the economic performance of Atairos as we have no voting rights and only certain consent rights, and that we are not a related party with our former CFO or the management companies. We therefore do not consolidate Atairos and account for our investment as an equity method investment. There are no other liquidity arrangements, guarantees or other financial commitments between Comcast and Atairos, and therefore our maximum risk of financial loss is our investment balance and remaining unfunded capital commitment.

As of December 31, 2018 and 2017, our investment in Atairos was $2.7 billion and $2.4 billion, respectively. In 2018, 2017 and 2016, we made cash capital contributions totaling $282 million, $994 million and $1.2 billion, respectively, to Atairos. Atairos follows investment company accounting and records its investments at their fair values each reporting period with the net gains or losses reflected in its statement of operations. We recognize our share of these gains and losses in equity in net income (losses) of investees, net. In 2018, we recognized our share of Atairos' losses of $31 million; in 2017 and 2016, we recognized our share of Atairos' income of $281 million and losses of $38 million respectively.

In April 2018, we sold a controlling interest in our arena management-related businesses to Atairos and received as consideration additional equity interests in Atairos. In connection with the sale of the businesses, we recognized a pre-tax gain of $200 million in other operating gains. In July 2017, we sold a business to a company owned by Atairos and received as consideration an investment in that company. In connection with the sale of the business, we recognized a pre-tax gain of $105 million in other operating gains. We account for our retained ownership in the businesses as equity method investments.

Hulu

As of December 31, 2018 and 2017, our investment in Hulu was $248 million and $249 million, respectively. In 2018, 2017 and 2016, we made cash capital contributions totaling $454 million, $300 million and $50 million, respectively, to Hulu. In 2018, 2017 and 2016, we recognized our proportionate share of Hulu's losses of $454 million, $276 million and $168 million, respectively, in equity in net income (losses) of investees, net.

In August 2016, Time Warner Inc. acquired a 10% interest in Hulu, which diluted our interest in Hulu from 33% to 30%. For a period not to exceed 3 years, Time Warner may put its shares to Hulu or Hulu may call Time Warner's shares under certain limited circumstances arising from regulatory review. Given the contingent nature of the put and call options, we recorded a deferred gain of $159 million and a corresponding increase to our investment in Hulu as a result of the dilution. The deferred gain will be recognized in other income (loss), net if and when the options expire unexercised.

The Weather Channel

In March 2018, we sold our investment in The Weather Channel cable network and recognized a pretax gain of $64 million in other income (loss), net.

In January 2016, following a legal restructuring at The Weather Channel, we and the other investors sold the entity holding The Weather Channel's product and technology businesses to IBM. Following the close of the transaction, we continued to hold an investment in The Weather Channel cable network through a new holding company. As a result of the sale of our investment, we recognized a pretax gain of $108 million in other income (loss), net.

Marketable Equity Securities

We classify publicly traded investments with readily determinable fair values that are not accounted for under the equity method as marketable equity securities. Marketable equity securities are recorded at cost and adjusted to fair value at each reporting period. The changes in fair value between measurement dates are recorded in realized and unrealized gains (losses) on equity securities, net. The fair values of our marketable equity securities are based on Level 1 inputs that use quoted market prices.

Snap

In March 2017, we acquired an interest in Snap Inc. for $500 million as part of its initial public offering, which we have classified as a marketable equity security. Snap is a camera company whose primary product is Snapchat, a camera app that was created to help people communicate through short videos and images. As of December 31, 2018 and 2017, our investment in Snap was $162 million and $430 million, respectively. In 2018, we recognized unrealized losses of $268 million in realized and unrealized gains (losses) on equity securities, net related to our investment in Snap. Prior to the updated accounting guidance, unrealized gains and losses related to our investment in Snap were recorded to accumulated other comprehensive income.

Nonmarketable Equity Securities

We classify investments without readily determinable fair values that are not accounted for under the equity method as nonmarketable equity securities. The accounting guidance requires nonmarketable equity securities to be recorded at cost and adjusted to fair value at each reporting period. However, the guidance allows for a measurement alternative, which is to record the investments at cost, less impairment, if any, and subsequently adjust for observable price changes of identical or similar investments of the same issuer. We apply this measurement alternative to a majority of our nonmarketable equity securities. When an observable event occurs, we estimate the fair values of our nonmarketable equity securities based on Level 2 inputs that are derived from observable price changes of similar securities adjusted for insignificant differences in rights and obligations. The changes in value are recorded in realized and unrealized gains (losses) on equity securities, net.

Other Investments

AirTouch

We hold two series of preferred stock of Verizon Americas, Inc., formerly known as AirTouch Communications, Inc., a subsidiary of Verizon Communications Inc., which are redeemable in April 2020. As of both December 31, 2018 and 2017, our investment in AirTouch was $1.6 billion. We account for our investment in AirTouch as a held to maturity investment using the cost method. As of both December 31, 2018 and 2017, the estimated fair value of the AirTouch preferred stock was $1.7 billion.

The dividend and redemption activity of the AirTouch preferred stock determines the dividend and redemption payments associated with substantially all of the preferred shares issued by one of our consolidated subsidiaries, which is a VIE. The subsidiary has three series of preferred stock outstanding with an aggregate redemption value of $1.75 billion. Substantially all of the AirTouch preferred stock is redeemable in April 2020 at a redemption value of $1.65 billion. As of both December 31, 2018 and 2017, the two series of redeemable subsidiary preferred shares were recorded at $1.6 billion, and those amounts are included in other noncurrent liabilities. As of both December 31, 2018 and 2017, the liability related to the redeemable subsidiary preferred shares had an aggregate estimated fair value of $1.7 billion. The estimated fair values of the AirTouch preferred stock and redeemable subsidiary preferred shares are based on Level 2 inputs that use pricing models whose inputs are derived primarily from or corroborated by observable market data through correlation or other means for substantially the full term of the financial instrument. The one series of nonredeemable subsidiary preferred shares was recorded at $100 million as of both December 31, 2018 and 2017, and those amounts are included in noncontrolling interests in our consolidated balance sheet. The carrying amount of the nonredeemable subsidiary preferred shares approximates its fair value.

Impairment Testing of Investments

We review our investment portfolio, other than our marketable equity securities, each reporting period to determine whether there are identified events or circumstances that would indicate there is a decline in the fair value. For our nonpublic investments, if there are no identified events or circumstances that would have a significant adverse effect on the fair value of the investment, then the fair value is not estimated. For our equity method investments and held to maturity investments, if an investment is deemed to have experienced an other-than-temporary decline below its cost basis, we reduce the carrying amount of the investment to its quoted or estimated fair value, as applicable, and establish a new cost basis for the investment. For our nonmarketable equity securities, we record the impairment to realized and unrealized gains (losses) on equity securities, net. For our equity method investments and our held to maturity investments, we record the impairment to other income (loss), net.

Note 11: Property and Equipment

December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2018		**2018**		2017
Cable distribution system	11 years	**$**	**38,380**	$	36,046
Customer premise equipment	6 years		**26,208**		26,392
Other equipment	8 years		**12,437**		10,518
Buildings and leasehold improvements	30 years		**14,188**		12,346
Construction in process	N/A		**2,991**		1,752
Land	N/A		**1,539**		1,332
Property and equipment, at cost			**95,743**		88,386
Less: Accumulated depreciation			**51,306**		49,916
Property and equipment, net		**$**	**44,437**	$	38,470

Property and equipment are stated at cost. We capitalize improvements that extend asset lives and expense repairs and maintenance costs as incurred. We record depreciation using the straight-line method over the asset's estimated useful life. For assets that are sold or retired, we remove the applicable cost and accumulated depreciation and, unless the gain or loss on disposition is presented separately, we recognize it as a component of depreciation expense.

In accordance with the accounting guidance related to cable television companies, our Cable Communications segment capitalizes the costs associated with the construction of and improvements to our cable transmission and distribution facilities, including scalable infrastructure and line extensions; costs associated with acquiring and deploying new customer premise equipment; and costs associated with installation of our services. Costs capitalized include all direct costs for labor and materials, as well as various indirect costs. Costs incurred in connection with subsequent disconnects and reconnects are expensed as they are incurred.

We evaluate the recoverability of our property and equipment whenever events or substantive changes in circumstances indicate that the carrying amount may not be recoverable. The evaluation is based on the cash flows generated by the underlying asset groups, including estimated future operating results, trends or other determinants of fair value. If the total of the expected future undiscounted cash flows were less than the carrying amount of the asset group, we would recognize an impairment charge to the extent the carrying amount of the asset group exceeded its estimated fair value. Unless presented separately, the impairment charge is included as a component of depreciation expense.

Note 12: Goodwill and Intangible Assets

Goodwill

(in millions)	Cable Communications	NBCUniversal Cable Networks	NBCUniversal Broadcast Television	NBCUniversal Filmed Entertainment	NBCUniversal Theme Parks	Sky	Corporate and Other	Total
Balance, December 31, 2016	$ 12,645	$ 13,183	$ 806	$ 2,993	$ 6,341	$ —	$ 12	$ 35,980
Acquisitions	140	241	—	32	—	—	5	418
Dispositions	—	—	—	—	—	—	(11)	(11)
Adjustments[a]	(1)	1	—	185	—	—	1	186
Foreign currency translation	—	2	—	2	203	—	—	207
Balance, December 31, 2017	12,784	13,427	806	3,212	6,544	—	7	36,780
Acquisitions[b]	**—**	**—**	**36**	**—**	**—**	**29,889**	**—**	**29,925**
Dispositions	**—**	**—**	**—**	**(8)**	**—**	**—**	**(5)**	**(13)**
Adjustments	**—**	**(13)**	**1**	**(9)**	**—**	**—**	**—**	**(21)**
Foreign currency translation	**—**	**(7)**	**—**	**(11)**	**140**	**(639)**	**—**	**(517)**
Balance, December 31, 2018	**$ 12,784**	**$ 13,407**	**$ 843**	**$ 3,184**	**$ 6,684**	**$ 29,250**	**$ 2**	**$ 66,154**

(a) Adjustments in 2017 primarily included the updated allocation of the purchase price for DreamWorks Animation.

(b) Acquisitions in 2018 primarily included the Sky acquisition. As of December 31, 2018, all goodwill resulting from the Sky acquisition has been presented in the Sky segment. Our evaluation of reporting units and assignment of goodwill resulting from the Sky acquisition are preliminary and subject to change. We will finalize the analysis no later than one year from the acquisition date. See Note 8 for further information on the Sky acquisition.

Goodwill is calculated as the excess of the consideration transferred over the identifiable net assets acquired in a business combination and represents the future economic benefits expected to arise from anticipated synergies and intangible assets acquired that do not qualify for separate recognition, including assembled workforce, noncontractual relationships and other agreements. We assess the recoverability of our goodwill annually, or more frequently whenever events or substantive changes in circumstances indicate that the carrying amount of a reporting unit may exceed its fair value. We test goodwill for impairment at the reporting unit level. To determine our reporting units, we evaluate the components one level below the segment level and we aggregate the components if they have similar economic characteristics. As a result of this assessment, our reporting units are generally the same as our reportable segments. We evaluate the determination of our reporting units used to test for impairment periodically or whenever events or substantive changes in circumstances occur. The assessment of recoverability may first consider qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. A quantitative assessment is performed if the qualitative assessment results in a more-likely-than-not determination or if a qualitative assessment is not performed. The quantitative assessment considers whether the carrying amount of a reporting unit exceeds its fair value, in which case an impairment charge is recorded to the extent the reporting unit's carrying value exceeds its fair value. Unless presented separately, the impairment charge is included as a component of amortization expense. We did not recognize any impairment charges in any of the periods presented.

Intangible Assets

December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2018	**2018[a] Gross Carrying Amount**	**2018[a] Accumulated Amortization**	2017 Gross Carrying Amount	2017 Accumulated Amortization
Indefinite-Lived Intangible Assets:					
Franchise rights	N/A	**$ 59,365**		$ 59,364	
Trade names	N/A	**9,633**		2,981	
FCC licenses	N/A	**2,333**		2,238	
Finite-Lived Intangible Assets:					
Customer relationships	16 years	**25,046**	**$ (6,682)**	13,612	$ (5,819)
Software	5 years	**11,395**	**(5,990)**	8,258	(4,846)
Patents and other technology rights	7 years	**260**	**(234)**	259	(221)
Other agreements and rights	18 years	**3,885**	**(1,288)**	2,736	(1,065)
Total		**$ 111,917**	**$ (14,194)**	$ 89,448	$ (11,951)

(a) In 2018, we recorded intangible assets in connection with the Sky acquisition, which primarily consisted of customer relationships and trade names (see Note 8 for additional information).

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets consist primarily of our cable franchise rights. Our cable franchise rights represent the values we attributed to agreements with state and local authorities that allow access to homes and businesses in cable service areas acquired in business combinations. We do not amortize our cable franchise rights because we have determined that they meet the definition of indefinite-lived intangible assets since there are no legal, regulatory, contractual, competitive, economic or other factors which limit the period over which these rights will contribute to our cash flows. We reassess this determination periodically or whenever events or substantive changes in circumstances occur.

We assess the recoverability of our cable franchise rights and other indefinite-lived intangible assets annually, or more frequently whenever events or substantive changes in circumstances indicate that the assets might be impaired. Our three Cable Communications divisions represent the unit of account we use to test for impairment of our cable franchise rights. We evaluate the unit of account used to test for impairment of our cable franchise rights and other indefinite-lived intangible assets periodically or whenever events or substantive changes in circumstances occur to ensure impairment testing is performed at an appropriate level. The assessment of recoverability may first consider qualitative factors to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. A quantitative assessment is performed if the qualitative assessment results in a more-likely-than-not determination or if a qualitative assessment is not performed. When performing a quantitative assessment, we estimate the fair value of our cable franchise rights and other indefinite-lived intangible assets primarily based on a discounted cash flow analysis that involves significant judgment. When analyzing the fair values indicated under the discounted cash flow models, we also consider multiples of Adjusted EBITDA generated by the underlying assets, current market transactions and profitability information. If the fair value of our cable franchise rights or other indefinite-lived intangible assets were less than the carrying amount, we would recognize an impairment charge for the difference between the estimated fair value and the carrying value of the assets. Unless presented separately, the impairment charge is included as a component of amortization expense. We did not recognize any material impairment charges in any of the periods presented.

Finite-Lived Intangible Assets

Estimated Amortization Expense of Finite-Lived Intangible Assets

(in millions)		
2019	$	3,719
2020	$	3,490
2021	$	3,104
2022	$	2,689
2023	$	2,260

Finite-lived intangible assets are subject to amortization and consist primarily of customer relationships acquired in business combinations, software, and intellectual property rights. Our finite-lived intangible assets are amortized primarily on a straight-line basis over their estimated useful life or the term of the associated agreement.

We capitalize direct development costs associated with internal-use software, including external direct costs of material and services and payroll costs for employees devoting time to these software projects. We also capitalize costs associated with the purchase of software licenses. We generally amortize them on a straight-line basis over a period not to exceed five years. We expense maintenance and training costs, as well as costs incurred during the preliminary stage of a project, as they are incurred. We capitalize initial operating system software costs and amortize them over the life of the associated hardware.

We evaluate the recoverability of our finite-lived intangible assets whenever events or substantive changes in circumstances indicate that the carrying amount may not be recoverable. The evaluation is based on the cash flows generated by the underlying asset groups, including estimated future operating results, trends or other determinants of fair value. If the total of the expected future undiscounted cash flows were less than the carrying amount of the asset group, we would recognize an impairment charge to the extent the carrying amount of the asset group exceeded its estimated fair value. Unless presented separately, the impairment charge is included as a component of amortization expense.

Note 13: Employee Benefit Plans

Deferred Compensation Plans

Year ended December 31 (in millions)	2018	2017	2016
Benefit obligation	**$ 2,885**	$ 2,539	$ 2,164
Interest expense	**$ 222**	$ 209	$ 178

We maintain unfunded, nonqualified deferred compensation plans for certain members of management and nonemployee directors. The amount of compensation deferred by each participant is based on participant elections. Participant accounts, except for those in the NBCUniversal plan, are credited with income primarily based on a fixed annual rate. Participants in the NBCUniversal plan designate one or more valuation funds, independently established funds or indices that are used to determine the amount of investment gain or loss in the participant's account. Participants are eligible to receive distributions from their account based on elected deferral periods that are consistent with the plans and applicable tax law.

We have purchased life insurance policies to recover a portion of the future payments related to our deferred compensation plans. As of December 31, 2018 and 2017, the cash surrender value of these policies, which is recorded to other noncurrent assets, was $351 million and $820 million, respectively.

Postretirement Benefit Plan

Year ended December 31 (in millions)	2018	2017
Benefit obligation	**$ 408**	$ 425
Amounts in accumulated other comprehensive income not yet recognized in benefits expense	**$ (439)**	$ (458)

We sponsor a retiree health and welfare benefit plan that provides postretirement benefits to eligible employees. The plan provides, to eligible employees who retire from Comcast or its subsidiaries, an annual stipend for reimbursement of certain eligible healthcare costs. The amount of the stipend for an eligible retiree is fixed at a predetermined amount based on the retiree's years of service and whether the retiree is eligible for Medicare. In December 2016, the plan was amended primarily to reduce the stipend benefits of active employees of Comcast and subsidiaries other than NBCUniversal who retire after December 31, 2017, and in 2017 additional amendments were made to reduce the benefits of NBCUniversal employees who retire after December 31, 2017. Additionally, under the plan, a small number of employees are also eligible to participate in legacy plan benefits that were previously sponsored by acquired companies.

The plan is unfunded and substantially all of our postretirement benefit obligations are recorded to noncurrent liabilities. The expense we recognize for the plan is determined using certain assumptions, including the discount rate. The benefits expense we recognized for the plan was not material in any of the periods presented.

Pension Plans

NBCUniversal sponsors various nonqualified defined benefit pension plans for domestic employees. Since the future benefits have been frozen since the beginning of 2013, we did not recognize service costs related to the pension plans for any period presented. The benefits expense we recognized for our defined benefit plans was not material in any of the periods presented. In addition to the defined benefit plans it sponsors, NBCUniversal is also obligated to reimburse The General Electric Company ("GE") for future benefit payments to those participants who were vested in the supplemental pension plan sponsored by GE at the time of the NBCUniversal transaction in 2011. These pension plans are currently unfunded and we recorded a benefit obligation of $312 million and $338 million as of December 31, 2018 and 2017, respectively, which consists primarily of our obligations to reimburse GE.

Retirement Investment Plans

We sponsor several 401(k) defined contribution retirement plans that allow eligible employees to contribute a portion of their compensation through payroll deductions in accordance with specified plan guidelines. We make contributions to the plans that include matching a percentage of the employees' contributions up to certain limits. In 2018, 2017 and 2016, expenses related to these plans totaled $546 million, $458 million and $446 million, respectively.

Multiemployer Benefit Plans

We participate in various multiemployer benefit plans, including pension and postretirement benefit plans, that cover some of our employees and temporary employees who are represented by labor unions. We also participate in other multiemployer benefit plans that provide health and welfare and retirement savings benefits to active and retired participants. We make periodic contributions to these plans in accordance with the terms of applicable collective bargaining agreements and laws but do not

sponsor or administer these plans. We do not participate in any multiemployer benefit plans for which we consider our contributions to be individually significant.

In 2018, 2017 and 2016, the total contributions we made to multiemployer pension plans were $102 million, $97 million and $84 million, respectively. In 2018, 2017 and 2016, the total contributions we made to multiemployer postretirement and other benefit plans were $183 million, $152 million and $136 million, respectively.

If we cease to be obligated to make contributions or were to otherwise withdraw from participation in any of these plans, applicable law would require us to fund our allocable share of the unfunded vested benefits, which is known as a withdrawal liability. In addition, actions taken by other participating employers may lead to adverse changes in the financial condition of one of these plans, which could result in an increase in our withdrawal liability.

Severance Benefits

We provide severance benefits to certain former employees. A liability is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated. In 2018, 2017 and 2016, we recorded severance costs of $243 million, $203 million and $315 million, respectively. Severance costs in 2016 included $61 million of severance costs associated with the acquisition of DreamWorks Animation.

Note 14: Equity

Common Stock

In the aggregate, holders of our Class A common stock have 66$^{2}/_{3}$% of the voting power of our common stock and holders of our Class B common stock have 33$^{1}/_{3}$% of the voting power of our common stock, which percentage is generally non-dilutable under the terms of our articles of incorporation. Each share of our Class B common stock is entitled to 15 votes. The number of votes held by each share of our Class A common stock depends on the number of shares of Class A and Class B common stock outstanding at any given time. The 33$^{1}/_{3}$% aggregate voting power of our Class B common stock cannot be diluted by additional issuances of any other class of common stock. Our Class B common stock is convertible, share for share, into Class A common stock, subject to certain restrictions.

Shares of Common Stock Outstanding

(in millions)	A	B
Balance, December 31, 2015	4,875	9
Stock compensation plans	23	—
Repurchases and retirements of common stock	(161)	—
Employee stock purchase plans	5	—
Balance, December 31, 2016	4,742	9
Stock compensation plans	19	—
Repurchases and retirements of common stock	(131)	—
Employee stock purchase plans	5	—
Balance, December 31, 2017	4,635	9
Stock compensation plans	**15**	**—**
Repurchases and retirements of common stock	**(140)**	**—**
Employee stock purchase plans	**7**	**—**
Balance, December 31, 2018	**4,517**	**9**

Share Repurchases

Effective January 1, 2017, our Board of Directors increased our share repurchase program authorization to a total of $12.0 billion, which does not have an expiration date. As of December 31, 2018, $2.0 billion remained under this authorization.

Share Repurchases Under Share Repurchase Program Authorization

Year ended December 31 (in millions)	**2018**	2017	2016
Cash consideration	**$ 5,000**	$ 5,000	$ 5,000
Shares repurchased	**140**	131	161

Accumulated Other Comprehensive Income (Loss)

December 31 (in millions)		2018		2017
Unrealized gains (losses) on marketable securities	$	**3**	$	(43)
Deferred gains (losses) on cash flow hedges		**55**		9
Unrecognized gains (losses) on employee benefit obligations		**325**		260
Cumulative translation adjustments		**(751)**		153
Accumulated other comprehensive income (loss), net of deferred taxes	$	**(368)**	$	379

Note 15: Share-Based Compensation

The tables below provide information on our share-based compensation.

Recognized Share-Based Compensation Expense

Year ended December 31 (in millions)		2018		2017		2016
Restricted share units	$	**402**	$	349	$	306
Stock options		**205**		205		173
Employee stock purchase plans		**32**		32		28
Total	$	**639**	$	586	$	507

Our share-based compensation plans consist primarily of awards of RSUs and stock options to certain employees and directors as part of our approach to long-term incentive compensation. Awards generally vest over a period of 5 years and in the case of stock options, have a 10 year term. Additionally, through our employee stock purchase plans, employees are able to purchase shares of our common stock at a discount through payroll deductions. As of December 31, 2018, all of our stock options outstanding were net settled stock options. Net settled stock options, as opposed to stock options exercised with a cash payment, result in fewer shares being issued and no cash proceeds being received by us when the options are exercised.

In connection with the acquisition of Sky in the fourth quarter of 2018, Comcast issued replacement share-based compensation awards for non-vested awards based in Sky shares that were held by Sky employees at the time of the acquisition. The replacement awards included 8 million RSUs with a grant date weighted average fair value of $35.38 per RSU that will vest in 2020 and 2021.

Stock Options and Restricted Share Units

As of December 31, 2018, unless otherwise stated (in millions, except per share data)		Stock Options		RSUs
Awards granted during 2018		41		24
Weighted-average exercise price of awards granted during 2018	$	35.81		
Stock options outstanding and nonvested RSUs		200		51
Weighted-average exercise price of stock options outstanding	$	27.69		
Weighted-average fair value at grant date of nonvested RSUs			$	33.77

The cost associated with our share-based compensation is based on an award's estimated fair value at the date of grant and is recognized over the period in which any related services are provided. RSUs are valued based on the closing price of our common stock on the date of grant and are discounted for the lack of dividends, if any, during the vesting period. We use the Black-Scholes option pricing model to estimate the fair value of stock option awards.

The table below presents the weighted-average fair value on the date of grant of RSUs and stock options awarded under our various plans and the related weighted-average valuation assumptions.

Year ended December 31		2018		2017		2016
RSUs fair value	$	**35.56**	$	37.77	$	30.02
Stock options fair value	$	**7.14**	$	7.01	$	5.78
Stock Option Valuation Assumptions:						
Dividend yield		**2.1%**		1.7%		1.8%
Expected volatility		**22.0%**		20.1%		23.0%
Risk-free interest rate		**2.7%**		2.2%		1.5%
Expected option life (in years)		**6.0**		6.1		6.1

As of December 31, 2018, we had unrecognized pretax compensation expense of $1.1 billion related to nonvested RSUs and unrecognized pretax compensation expense of $437 million related to nonvested stock options that will be recognized over a weighted-average period of approximately 1.6 years and 1.7 years, respectively. In 2018 and 2017, we recognized $75 million and $297 million, respectively, as a reduction to income tax expense as a result of excess tax benefits associated with our share-based compensation plans. In 2016, under prior accounting guidance, we recorded an increase to additional paid-in capital of $233 million as a result of excess tax benefits associated with our share-based compensation plans.

Note 16: Supplemental Financial Information

Cash Payments for Interest and Income Taxes

Year ended December 31 (in millions)		**2018**		2017		2016
Interest	**$**	**2,897**	$	2,820	$	2,565
Income taxes	**$**	**2,355**	$	4,057	$	3,693

Noncash Investing and Financing Activities

During 2018:

- we acquired $2.1 billion of property and equipment and intangible assets that were accrued but unpaid
- we recorded a liability of $860 million for a quarterly cash dividend of $0.19 per common share paid in January 2019
- we received noncash contributions from noncontrolling interests totaling $391 million related to Universal Beijing Resort (see Note 8)

During 2017:

- we acquired $1.2 billion of property and equipment and intangible assets that were accrued but unpaid
- we recorded a liability of $732 million for a quarterly cash dividend of $0.1575 per common share paid in January 2018
- we completed a senior notes exchange in the fourth quarter of 2017 in which we issued $5.5 billion aggregate principal amount of new senior notes in exchange for $3.9 billion aggregate principal amount of certain series of outstanding senior notes that were issued by us and NBCUniversal

During 2016:

- we acquired $1.3 billion of property and equipment and intangible assets that were accrued but unpaid
- we recorded a liability of $653 million for a quarterly cash dividend of $0.1375 per common share paid in January 2017
- we recorded a liability of $447 million for capital contributions to Atairos that were accrued in December and paid in January 2017 (see Note 10)

Cash, Cash Equivalents and Restricted Cash

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the consolidated balance sheet to the total of the amounts reported in our consolidated statement of cash flows.

December 31 (in millions)		**2018**		2017
Cash and cash equivalents	**$**	**3,814**	$	3,428
Restricted cash included in other current assets		**46**		60
Restricted cash included in other noncurrent assets, net		**49**		83
Cash, cash equivalents and restricted cash, end of year	**$**	**3,909**	$	3,571

Note 17: Commitments and Contingencies

Commitments

NBCUniversal and Sky enter into long-term commitments with third parties in the ordinary course of its business, including commitments to acquire film and television programming, obligations under various creative talent agreements, and various other television-related commitments. Some of NBCUniversal's employees, including writers, directors, actors, technical and production personnel, and others, as well as some of its on-air and creative talent, are covered by collective bargaining agreements or works councils. As of December 31, 2018, the total number of NBCUniversal employees covered by collective bargaining agreements was 10,000 full-time equivalent employees. Approximately 46% of these full-time equivalent employees were covered by collective bargaining agreements that have expired or are scheduled to expire during 2019.

We, through Comcast Spectacor, have employment agreements with both players and coaches of the Philadelphia Flyers. Certain of these employment agreements, which provide for payments that are guaranteed regardless of employee injury or termination, are covered by disability insurance if certain conditions are met.

The table below summarizes our minimum annual programming and talent commitments and our minimum annual rental commitments under operating leases for office space, equipment and transponder service agreements. Programming and talent commitments include acquired film and television programming, including broadcast rights to sporting events, such as the Olympics, and other programming commitments, as well as various contracts with creative talent.

As of December 31, 2018 (in millions)	Programming and Talent Commitments	Operating Leases
2019	$ 11,741	$ 759
2020	$ 10,468	$ 709
2021	$ 8,865	$ 616
2022	$ 5,193	$ 480
2023	$ 3,060	$ 414
Thereafter	$ 17,142	$ 2,285

The table below presents our rental expense charged to operations.

Year ended December 31 (in millions)	**2018**	2017	2016
Rental expense	**$ 779**	$ 839	$ 744

Contractual Obligation

We are party to a contractual obligation that involves an interest held by a third party in the revenue of certain theme parks. The arrangement provides the counterparty with the right to periodic payments associated with current period revenue which are recorded as an operating expense, and beginning in June 2017, the option to require NBCUniversal to purchase the interest for cash in an amount based on a contractual formula. The contractual formula is based on an average of specified historical theme park revenue at the time of exercise, which amount could be significantly higher than our carrying value. As of December 31, 2018, our carrying value was $1.1 billion, and the value of the contractual obligation was $1.6 billion based on inputs to the contractual formula as of that date.

Redeemable Subsidiary Preferred Stock

NBCUniversal Enterprise is a holding company that we control and consolidate whose principal assets are its interests in NBCUniversal Holdings. The holders of the Series A cumulative preferred stock of NBCUniversal Enterprise have the right to cause NBCUniversal Enterprise to redeem their shares at a price equal to the $725 million aggregate liquidation preference plus accrued but unpaid dividends for a 30 day period beginning on March 19, 2020 and thereafter on every third anniversary of such date (each such date, a "put date"). The NBCUniversal Enterprise preferred stock pays dividends at a fixed rate of 5.25% per year. Shares of preferred stock can be called for redemption by NBCUniversal Enterprise at a price equal to the liquidation preference plus accrued but unpaid dividends one year following the put date applicable to such shares. Because certain of these redemption provisions are outside of our control, the NBCUniversal Enterprise preferred stock is presented outside of equity under the caption "redeemable noncontrolling interests and redeemable subsidiary preferred stock" in our consolidated balance sheet. Its initial value was based on the liquidation preference of the preferred stock and is adjusted for accrued but unpaid dividends. As of December 31, 2018 and 2017, the fair value of the NBCUniversal Enterprise redeemable subsidiary preferred stock was $741 million and $748 million, respectively. The estimated fair values are based on Level 2 inputs that use pricing models whose inputs are derived

primarily from or corroborated by observable market data through correlation or other means for substantially the full term of the financial instrument.

Contingencies

We are a defendant in several unrelated lawsuits claiming infringement of various patents relating to various aspects of our businesses. In certain of these cases other industry participants are also defendants, and also in certain of these cases we expect that any potential liability would be in part or in whole the responsibility of our equipment and technology vendors under applicable contractual indemnification provisions. In addition, we are subject to other legal proceedings and claims that arise in the ordinary course of our business. While the amount of ultimate liability with respect to such actions is not expected to materially affect our results of operations, cash flows or financial position, any litigation resulting from any such legal proceedings or claims could be time-consuming and injure our reputation.

Note 18: Quarterly Financial Information (Unaudited)

(in millions, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total Year
2018					
Revenue	**$ 22,791**	**$ 21,735**	**$ 22,135**	**$ 27,846**	**$ 94,507**
Operating income	**$ 4,645**	**$ 5,014**	**$ 4,836**	**$ 4,514**	**$ 19,009**
Net income attributable to Comcast Corporation	**$ 3,118**	**$ 3,216**	**$ 2,886**	**$ 2,511**	**$ 11,731**
Basic earnings per common share attributable to Comcast Corporation shareholders	**$ 0.67**	**$ 0.70**	**$ 0.63**	**$ 0.55**	**$ 2.56**
Diluted earnings per common share attributable to Comcast Corporation shareholders	**$ 0.66**	**$ 0.69**	**$ 0.62**	**$ 0.55**	**$ 2.53**
Dividends declared per common share	**$ 0.19**	**$ 0.19**	**$ 0.19**	**$ 0.19**	**$ 0.76**
2017					
Revenue	$ 20,587	$ 21,286	$ 21,081	$ 22,075	$ 85,029
Operating income	$ 4,542	$ 4,568	$ 4,779	$ 4,129	$ 18,018
Net income attributable to Comcast Corporation[(a)]	$ 2,573	$ 2,521	$ 2,642	$ 14,999	$ 22,735
Basic earnings per common share attributable to Comcast Corporation shareholders	$ 0.54	$ 0.53	$ 0.56	$ 3.22	$ 4.83
Diluted earnings per common share attributable to Comcast Corporation shareholders	$ 0.53	$ 0.52	$ 0.55	$ 3.17	$ 4.75
Dividends declared per common share	$ 0.1575	$ 0.1575	$ 0.1575	$ 0.1575	$ 0.63

Minor differences may exist due to rounding.

(a) In the fourth quarter of 2017, net income attributable to Comcast Corporation included a $12.7 billion net income tax benefit as a result of the impacts of the 2017 tax reform legislation. See Note 5 for additional information.

Note 19: Condensed Consolidating Financial Information

Comcast (“Comcast Parent”), Comcast Cable Communications, LLC (“CCCL Parent”) and NBCUniversal (“NBCUniversal Media Parent”) have fully and unconditionally guaranteed each other’s debt. See Note 7 for additional information on the cross-guarantee structure.

Comcast Corporation

Condensed Consolidating Statement of Income

For the Year Ended December 31, 2018 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Revenue:							
Service revenue	$ —	$ —	$ —	$ —	$ 94,507	$ —	$ 94,507
Management fee revenue	1,197	—	1,175	—	—	(2,372)	—
Total revenue	1,197	—	1,175	—	94,507	(2,372)	94,507
Costs and Expenses:							
Programming and production	—	—	—	—	29,692	—	29,692
Other operating and administrative	947	—	1,175	1,023	27,321	(2,372)	28,094
Advertising, marketing and promotion	—	—	—	—	7,036	—	7,036
Depreciation	46	—	—	—	8,235	—	8,281
Amortization	5	—	—	—	2,731	—	2,736
Other operating gains	—	—	—	—	(341)	—	(341)
Total costs and expenses	998	—	1,175	1,023	74,674	(2,372)	75,498
Operating income (loss)	199	—	—	(1,023)	19,833	—	19,009
Interest expense	(2,644)	(12)	(190)	(430)	(266)	—	(3,542)
Investment and other income (loss), net	13,638	13,604	12,021	6,694	5,054	(51,236)	(225)
Income (loss) before income taxes	11,193	13,592	11,831	5,241	24,621	(51,236)	15,242
Income tax (expense) benefit	538	8	40	(4)	(3,962)	—	(3,380)
Net income (loss)	11,731	13,600	11,871	5,237	20,659	(51,236)	11,862
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	131	—	131
Net income (loss) attributable to Comcast Corporation	**$ 11,731**	**$ 13,600**	**$ 11,871**	**$ 5,237**	**$ 20,528**	**$ (51,236)**	**$ 11,731**
Comprehensive income (loss) attributable to Comcast Corporation	**$ 10,908**	**$ 13,623**	**$ 11,873**	**$ 5,279**	**$ 19,553**	**$ (50,328)**	**$ 10,908**

Comcast Corporation

Condensed Consolidating Statement of Income

For the Year Ended December 31, 2017 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Revenue:							
Service revenue	$ —	$ —	$ —	$ —	$ 85,029	$ —	$ 85,029
Management fee revenue	1,128	—	1,109	—	—	(2,237)	—
Total revenue	1,128	—	1,109	—	85,029	(2,237)	85,029
Costs and Expenses:							
Programming and production	—	—	—	—	25,355	—	25,355
Other operating and administrative	766	—	1,109	1,044	24,767	(2,237)	25,449
Advertising, marketing and promotion	—	—	—	—	6,519	—	6,519
Depreciation	31	—	—	—	7,883	—	7,914
Amortization	6	—	—	—	2,210	—	2,216
Other operating gains	—	—	—	—	(442)	—	(442)
Total costs and expenses	803	—	1,109	1,044	66,292	(2,237)	67,011
Operating income (loss)	325	—	—	(1,044)	18,737	—	18,018
Interest expense	(2,172)	(12)	(207)	(456)	(239)	—	(3,086)
Investment and other income (loss), net	24,076	21,767	19,610	6,584	5,545	(77,161)	421
Income (loss) before income taxes	22,229	21,755	19,403	5,084	24,043	(77,161)	15,353
Income tax (expense) benefit	506	156	71	(4)	6,840	—	7,569
Net income (loss)	22,735	21,911	19,474	5,080	30,883	(77,161)	22,922
Less: Net income loss attributable to noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	187	—	187
Net income (loss) attributable to Comcast Corporation	**$ 22,735**	**$ 21,911**	**$ 19,474**	**$ 5,080**	**$ 30,696**	**$ (77,161)**	**$ 22,735**
Comprehensive income (loss) attributable to Comcast Corporation	**$ 22,822**	**$ 21,909**	**$ 19,477**	**$ 5,054**	**$ 30,558**	**$ (76,998)**	**$ 22,822**

Comcast Corporation

Condensed Consolidating Statement of Income

For the Year Ended December 31, 2016 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Revenue:							
Service revenue	$ —	$ —	$ —	$ —	$ 80,736	$ —	$ 80,736
Management fee revenue	1,067	—	1,049	—	—	(2,116)	—
Total revenue	1,067	—	1,049	—	80,736	(2,116)	80,736
Costs and Expenses:							
Programming and production	—	—	—	—	24,348	—	24,348
Other operating and administrative	813	—	1,049	932	23,162	(2,116)	23,840
Advertising, marketing and promotion	—	—	—	—	6,291	—	6,291
Depreciation	28	—	—	—	7,436	—	7,464
Amortization	6	—	—	—	1,956	—	1,962
Other operating gains	—	—	—	—	—	—	—
Total costs and expenses	847	—	1,049	932	63,193	(2,116)	63,905
Operating income (loss)	220	—	—	(932)	17,543	—	16,831
Interest expense	(1,941)	(12)	(239)	(456)	(294)	—	(2,942)
Investment and other income (loss), net	9,799	9,289	8,703	5,572	4,515	(37,441)	437
Income (loss) before income taxes	8,078	9,277	8,464	4,184	21,764	(37,441)	14,326
Income tax (expense) benefit	600	6	84	(13)	(5,975)	—	(5,298)
Net income (loss)	8,678	9,283	8,548	4,171	15,789	(37,441)	9,028
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	350	—	350
Net income (loss) attributable to Comcast Corporation	**$ 8,678**	**$ 9,283**	**$ 8,548**	**$ 4,171**	**$ 15,439**	**$ (37,441)**	**$ 8,678**
Comprehensive income (loss) attributable to Comcast Corporation	**$ 8,950**	**$ 9,325**	**$ 8,554**	**$ 4,248**	**$ 15,529**	**$ (37,656)**	**$ 8,950**

Comcast Corporation

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2018 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Net cash provided by (used in) operating activities	$ (2,245)	$ 126	$ (112)	$ (1,430)	$ 27,958	$ —	$ 24,297
Investing Activities:							
Net transactions with affiliates	(26,179)	(575)	112	1,336	25,306	—	—
Capital expenditures	(27)	—	—	—	(9,747)	—	(9,774)
Cash paid for intangible assets	(4)	—	—	—	(1,931)	—	(1,935)
Acquisitions and construction of real estate properties	(105)	—	—	—	(38)	—	(143)
Construction of Universal Beijing Resort	—	—	—	—	(460)	—	(460)
Acquisitions, net of cash acquired	—	—	—	—	(38,219)	—	(38,219)
Proceeds from sales of businesses and investments	—	—	—	68	73	—	141
Purchases of investments	(126)	—	—	(50)	(1,081)	—	(1,257)
Deposits	—	—	—	—	—	—	—
Other	148	449	—	—	196	—	793
Net cash provided by (used in) investing activities	(26,293)	(126)	112	1,354	(25,901)	—	(50,854)
Financing Activities:							
Proceeds from (repayments of) short-term borrowings, net	(902)	—	—	—	1,281	—	379
Proceeds from borrowings	44,113	—	—	—	668	—	44,781
Repurchases and repayments of debt	(5,737)	—	—	(4)	(3,057)	—	(8,798)
Repurchases of common stock under repurchase program and employee plans	(5,320)	—	—	—	—	—	(5,320)
Dividends paid	(3,352)	—	—	—	—	—	(3,352)
Purchase of Universal Studios Japan noncontrolling interests	—	—	—	—	—	—	—
Issuances of common stock	—	—	—	—	—	—	—
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	—	—	—	—	(277)	—	(277)
Other	(201)	—	—	—	(72)	—	(273)
Net cash provided by (used in) financing activities	28,601	—	—	(4)	(1,457)	—	27,140
Impact of foreign currency on cash, cash equivalents and restricted cash	(63)	—	—	—	(182)	—	(245)
Increase (decrease) in cash and cash equivalents and restricted cash	—	—	—	(80)	418	—	338
Cash, cash equivalents and restricted cash, beginning of year	—	—	—	496	3,075	—	3,571
Cash, cash equivalents and restricted cash, end of year	**$ —**	**$ —**	**$ —**	**$ 416**	**$ 3,493**	**$ —**	**$ 3,909**

Comcast Corporation

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2017 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Net cash provided by (used in) operating activities	$ 151	$ 15	$ (147)	$ (1,439)	$ 22,681	$ —	$ 21,261
Investing Activities:							
Net transactions with affiliates	5,578	(5)	757	1,447	(7,777)	—	—
Capital expenditures	(12)	—	—	—	(9,538)	—	(9,550)
Cash paid for intangible assets	(4)	—	—	—	(1,601)	—	(1,605)
Acquisitions and construction of real estate properties	(267)	—	—	—	(151)	—	(418)
Construction of Universal Beijing Resort	—	—	—	—	(71)	—	(71)
Acquisitions, net of cash acquired	—	—	—	—	(532)	—	(532)
Proceeds from sales of businesses and investments	—	—	—	14	136	—	150
Purchases of investments	(70)	(10)	(60)	(62)	(2,090)	—	(2,292)
Deposits	—	—	—	—	—	—	—
Other	101	—	—	58	626	—	785
Net cash provided by (used in) investing activities	5,326	(15)	697	1,457	(20,998)	—	(13,533)
Financing Activities:							
Proceeds from (repayments of) short-term borrowings, net	(837)	—	—	—	(1,068)	—	(1,905)
Proceeds from borrowings	5,997	—	—	—	5,469	—	11,466
Repurchases and repayments of debt	(2,288)	—	(550)	(4)	(3,522)	—	(6,364)
Repurchases of common stock under repurchase program and employee plans	(5,435)	—	—	—	—	—	(5,435)
Dividends paid	(2,883)	—	—	—	—	—	(2,883)
Purchase of Universal Studios Japan noncontrolling interests	—	—	—	—	(2,299)	—	(2,299)
Issuances of common stock	—	—	—	—	—	—	—
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	—	—	—	—	(252)	—	(252)
Other	(31)	—	—	—	131	—	100
Net cash provided by (used in) financing activities	(5,477)	—	(550)	(4)	(1,541)	—	(7,572)
Increase (decrease) in cash and cash equivalents and restricted cash	—	—	—	14	142	—	156
Cash, cash equivalents and restricted cash, beginning of year	—	—	—	482	2,933	—	3,415
Cash, cash equivalents and restricted cash, end of year	**$ —**	**$ —**	**$ —**	**$ 496**	**$ 3,075**	**$ —**	**$ 3,571**

Comcast Corporation

Condensed Consolidating Statement of Cash Flows

For the Year Ended December 31, 2016 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Net cash provided by (used in) operating activities	$ 349	$ (336)	$ (100)	$ (1,453)	$ 21,231	$ —	$ 19,691
Investing Activities:							
Net transactions with affiliates	(1,956)	336	100	2,642	(1,122)	—	—
Capital expenditures	(13)	—	—	—	(9,122)	—	(9,135)
Cash paid for intangible assets	(9)	—	—	—	(1,543)	—	(1,552)
Acquisitions and construction of real estate properties	(35)	—	—	—	(393)	—	(428)
Construction of Universal Beijing Resort	—	—	—	—	(22)	—	(22)
Acquisitions, net of cash acquired	—	—	—	—	(3,929)	—	(3,929)
Proceeds from sales of businesses and investments	—	—	—	104	114	—	218
Purchases of investments	(40)	—	—	(210)	(1,447)	—	(1,697)
Deposits	—	—	—	—	(1,749)	—	(1,749)
Other	(108)	—	—	(35)	172	—	29
Net cash provided by (used in) investing activities	(2,161)	336	100	2,501	(19,041)	—	(18,265)
Financing Activities:							
Proceeds from (repayments of) short-term borrowings, net	1,339	—	—	—	451	—	1,790
Proceeds from borrowings	9,231	—	—	—	—	—	9,231
Repurchases and repayments of debt	(750)	—	—	(1,005)	(1,297)	—	(3,052)
Repurchases of common stock under repurchase program and employee plans	(5,352)	—	—	—	—	—	(5,352)
Dividends paid	(2,601)	—	—	—	—	—	(2,601)
Issuances of common stock	23	—	—	—	—	—	23
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	—	—	—	—	(253)	—	(253)
Other	(78)	—	—	25	(167)	—	(220)
Net cash provided by (used in) financing activities	1,812	—	—	(980)	(1,266)	—	(434)
Increase (decrease) in cash and cash equivalents and restricted cash	—	—	—	68	924	—	992
Cash, cash equivalents and restricted cash, beginning of year	—	—	—	414	2,009	—	2,423
Cash, cash equivalents and restricted cash, end of year	**$ —**	**$ —**	**$ —**	**$ 482**	**$ 2,933**	**$ —**	**$ 3,415**

Comcast Corporation

Condensed Consolidating Balance Sheet

December 31, 2018 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Assets							
Cash and cash equivalents	$ —	$ —	$ —	$ 416	$ 3,398	$ —	$ 3,814
Receivables, net	—	—	—	—	11,104	—	11,104
Programming rights	—	—	—	—	3,746	—	3,746
Other current assets	66	20	—	28	3,070	—	3,184
Total current assets	66	20	—	444	21,318	—	21,848
Film and television costs	—	—	—	—	7,837	—	7,837
Investments	270	11	143	790	6,669	—	7,883
Investments in and amounts due from subsidiaries eliminated upon consolidation	157,264	147,028	130,214	53,853	97,872	(586,231)	—
Property and equipment, net	670	—	—	—	43,767	—	44,437
Franchise rights	—	—	—	—	59,365	—	59,365
Goodwill	—	—	—	—	66,154	—	66,154
Other intangible assets, net	11	—	—	—	38,347	—	38,358
Other noncurrent assets, net	1,057	208	—	85	4,910	(458)	5,802
Total assets	**$ 159,338**	**$ 147,267**	**$ 130,357**	**$ 55,172**	**$ 346,239**	**$ (586,689)**	**$ 251,684**
Liabilities and Equity							
Accounts payable and accrued expenses related to trade creditors	$ 2	$ —	$ —	$ —	$ 8,492	$ —	$ 8,494
Accrued participations and residuals	—	—	—	—	1,808	—	1,808
Deferred revenue	—	—	—	—	2,182	—	2,182
Accrued expenses and other current liabilities	2,357	150	360	282	7,572	—	10,721
Current portion of long-term debt	699	—	—	4	3,695	—	4,398
Total current liabilities	3,058	150	360	286	23,749	—	27,603
Long-term debt, less current portion	81,661	146	2,100	7,748	15,690	—	107,345
Deferred income taxes	—	314	—	65	27,734	(524)	27,589
Other noncurrent liabilities	3,006	—	—	1,201	11,056	66	15,329
Redeemable noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	1,316	—	1,316
Equity:							
Common stock	54	—	—	—	—	—	54
Other shareholders' equity	71,559	146,657	127,897	45,872	265,805	(586,231)	71,559
Total Comcast Corporation shareholders' equity	71,613	146,657	127,897	45,872	265,805	(586,231)	71,613
Noncontrolling interests	—	—	—	—	889	—	889
Total equity	71,613	146,657	127,897	45,872	266,694	(586,231)	72,502
Total liabilities and equity	**$ 159,338**	**$ 147,267**	**$ 130,357**	**$ 55,172**	**$ 346,239**	**$ (586,689)**	**$ 251,684**

Comcast Corporation

Condensed Consolidating Balance Sheet

December 31, 2017 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Assets							
Cash and cash equivalents	$ —	$ —	$ —	$ 496	$ 2,932	$ —	$ 3,428
Receivables, net	—	—	—	—	8,834	—	8,834
Programming rights	—	—	—	—	1,613	—	1,613
Other current assets	60	—	7	25	2,376	—	2,468
Total current assets	60	—	7	521	15,755	—	16,343
Film and television costs	—	—	—	—	7,087	—	7,087
Investments	146	21	108	693	5,963	—	6,931
Investments in and amounts due from subsidiaries eliminated upon consolidation	117,164	142,519	139,528	50,102	113,332	(562,645)	—
Property and equipment, net	551	—	—	—	37,919	—	38,470
Franchise rights	—	—	—	—	59,364	—	59,364
Goodwill	—	—	—	—	36,780	—	36,780
Other intangible assets, net	12	—	—	—	18,121	—	18,133
Other noncurrent assets, net	435	708	—	88	3,437	(314)	4,354
Total assets	**$ 118,368**	**$ 143,248**	**$ 139,643**	**$ 51,404**	**$ 297,758**	**$ (562,959)**	**$ 187,462**
Liabilities and Equity							
Accounts payable and accrued expenses related to trade creditors	$ 16	$ —	$ —	$ —	$ 6,892	$ —	$ 6,908
Accrued participations and residuals	—	—	—	—	1,644	—	1,644
Deferred revenue	—	—	—	—	1,687	—	1,687
Accrued expenses and other current liabilities	1,888	92	333	326	3,981	—	6,620
Current portion of long-term debt	2,810	—	—	4	2,320	—	5,134
Total current liabilities	4,714	92	333	330	16,524	—	21,993
Long-term debt, less current portion	42,428	140	2,100	7,751	7,003	—	59,422
Deferred income taxes	—	285	—	67	24,250	(343)	24,259
Other noncurrent liabilities	2,610	—	—	1,128	7,205	29	10,972
Redeemable noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	1,357	—	1,357
Equity:							
Common stock	55	—	—	—	—	—	55
Other shareholders' equity	68,561	142,731	137,210	42,128	240,576	(562,645)	68,561
Total Comcast Corporation shareholders' equity	68,616	142,731	137,210	42,128	240,576	(562,645)	68,616
Noncontrolling interests	—	—	—	—	843	—	843
Total equity	68,616	142,731	137,210	42,128	241,419	(562,645)	69,459
Total liabilities and equity	**$ 118,368**	**$ 143,248**	**$ 139,643**	**$ 51,404**	**$ 297,758**	**$ (562,959)**	**$ 187,462**

Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A: Controls and Procedures

Comcast Corporation

Conclusions regarding disclosure controls and procedures

Our principal executive and principal financial officers, after evaluating the effectiveness of Comcast's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report, have concluded that, based on the evaluation of these controls and procedures required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15, Comcast's disclosure controls and procedures were effective.

Management's annual report on internal control over financial reporting

Refer to Management's Report on Comcast's Internal Control Over Financial Reporting on page 65.

Attestation report of the registered public accounting firm

Refer to Report of Independent Registered Public Accounting Firm on page 66.

Changes in internal control over financial reporting

There were no changes in Comcast's internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, Comcast's internal control over financial reporting, except as noted below. On October 9, 2018, we acquired a controlling interest in Sky. See Note 8 to Comcast's consolidated financial statements for additional information. In connection with the integration of Sky, we are in the process of analyzing and evaluating our internal controls over financial reporting. This process may result in additions or changes to our internal control over financial reporting.

NBCUniversal Media, LLC

Conclusions regarding disclosure controls and procedures

Our principal executive and principal financial officers, after evaluating the effectiveness of NBCUniversal's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this report, have concluded that, based on the evaluation of these controls and procedures required by paragraph (b) of Exchange Act Rules 13a-15 or 15d-15, NBCUniversal's disclosure controls and procedures were effective.

Management's annual report on internal control over financial reporting

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Our system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States.

Our internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets
- provide reasonable assurance that our transactions are recorded as necessary to permit preparation of our financial statements in accordance with accounting principles generally accepted in the United States, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our directors
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, effectiveness of internal control over financial

reporting may vary over time. Our system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Our management conducted an evaluation of the effectiveness of the system of internal control over financial reporting based on the framework in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that NBCUniversal's system of internal control over financial reporting was effective as of December 31, 2018.

Changes in internal control over financial reporting

There were no changes in NBCUniversal's internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, NBCUniversal's internal control over financial reporting.

Item 9B: Other Information

Iran Threat Reduction and Syria Human Rights Act Disclosure

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012, companies are required, among other things, to disclose certain activities, transactions or dealings with the Government of Iran or entities controlled directly or indirectly by the Government of Iran. Disclosure is generally required even where the activities, transactions or dealings are conducted in compliance with applicable laws and regulations and are *de minimis*. As of the date of this report, we are not aware of any activity, transaction or dealing during the year ended December 31, 2018 that requires disclosure under the Act, except with respect to the following:

- Prior to our August 2016 acquisition of DreamWorks Animation, a non-U.S. subsidiary of DreamWorks Animation entered into a licensing agreement in January 2016 that licensed a prior season of a children's animated television series for a three-year, non-cancelable term and for a one-time fee of $5,200 to a broadcasting company that is owned and controlled by the Government of Iran. The broadcasting company paid the license fee in the first quarter of 2016. We believe that DreamWorks Animation conducted its licensing activity in compliance with applicable laws and that the license is for the permissible exportation of informational materials pursuant to certain statutory and regulatory exemptions from U.S. sanctions.
- Prior to our fourth quarter 2018 acquisition of Sky, a non-U.S. subsidiary of Sky entered into two licensing agreements that licensed some of Sky's owned programming content to a broadcasting company that is owned and controlled by the Government of Iran. The first agreement was entered into in June 2012, and was amended in July 2016, to license 150 hours of programming content for various three-year license terms for a one-time fee of €86,250. The last remaining programming license under this agreement expires in January 2019. The second agreement was entered into in June 2015 to license 80 hours of programming content for various three-year license terms for a one-time fee of €45,700. To date, no programming content has been provided, and the license fee has not been paid, pursuant to the agreement. We believe that Sky conducted its licensing activity in compliance with applicable laws and that the licenses are for the permissible exportation of informational materials pursuant to certain statutory and regulatory exemptions from U.S. sanctions.

Amended and Restated By-Laws

Effective January 30, 2019, Comcast's Board of Directors adopted amendments to the Amended and Restated By-Laws of Comcast, primarily to (i) amend Sections 2.01 and 2.04 to more closely track provisions in the Pennsylvania Business Corporation Law of 1988, including with respect to providing ten days' prior notice for meetings of shareholders that will consider certain fundamental transactions under the Pennsylvania Business Corporation Law and five days' prior notice for all other meetings, and (ii) amend Sections 4.01 and 4.02 to permit the Board to delegate the appointment of certain subordinate officers to officers of the corporation and delete Section 4.07, which had provided for the rank and duties of all officers of the corporation. The foregoing description of the amendments to the By-Laws is qualified in its entirety by reference to the By-Laws, attached hereto as Exhibit 3.1 and incorporated herein by reference.

Part III

Item 10: Directors, Executive Officers and Corporate Governance

Comcast

Except for the information regarding executive officers required by Item 401 of Regulation S-K, we incorporate the information required by this item by reference to our definitive proxy statement for our annual meeting of shareholders presently scheduled to be held in June 2019. We refer to this proxy statement as the 2019 Proxy Statement.

The term of office of each of our executive officers continues until his successor is selected and qualified or until his earlier death, resignation or removal. The following table sets forth information concerning our executive officers, including their ages, positions and tenure, as of the date of this Annual Report on Form 10-K.

Name	Age	Officer Since	Position with Comcast
Brian L. Roberts	59	1986	Chairman and Chief Executive Officer; President
Michael J. Cavanagh	53	2015	Senior Executive Vice President; Chief Financial Officer
Stephen B. Burke	60	1998	Senior Executive Vice President; President and Chief Executive Officer, NBCUniversal Holdings and NBCUniversal
David L. Cohen	63	2002	Senior Executive Vice President
David N. Watson	59	2017	Senior Executive Vice President; President and Chief Executive Officer, Comcast Cable
Arthur R. Block	64	1993	Executive Vice President; General Counsel; Secretary
Daniel C. Murdock	45	2017	Senior Vice President; Chief Accounting Officer and Controller

Brian L. Roberts has served as a director and as our President, Chief Executive Officer and Chairman of the Board for more than five years. As of December 31, 2018, Mr. Roberts had sole voting power over approximately 33 1/3% of the combined voting power of our two classes of common stock. He is a son of our late founder, Mr. Ralph J. Roberts.

Michael J. Cavanagh has served as the Chief Financial Officer of Comcast Corporation since July 2015. Prior to joining our company, Mr. Cavanagh had been Co-President and Co-Chief Operating Officer for The Carlyle Group, a global investment firm, since 2014. Prior to that, Mr. Cavanagh was the Co-Chief Executive Officer of the Corporate & Investment Bank of JPMorgan Chase & Co. from 2012 until 2014; the Chief Executive Officer of JPMorgan Chase & Co.'s Treasury & Securities Services business from 2010 to 2012; and the Chief Financial Officer of JPMorgan Chase & Co. from 2004 to 2010. Mr. Cavanagh is also a director of Yum Brands, Incorporated.

Stephen B. Burke has served as a Senior Executive Vice President since March 2015 and previously had served as an Executive Vice President for more than five years. In January 2011, Mr. Burke became the President and Chief Executive Officer of NBCUniversal Holdings and NBCUniversal and resigned from his position as our Chief Operating Officer. Mr. Burke also had been the President of Comcast Cable until March 2010. Mr. Burke is also a director of JPMorgan Chase & Co. and Berkshire Hathaway, Incorporated.

David L. Cohen has served as a Senior Executive Vice President since March 2015 and previously had served as an Executive Vice President for more than five years. Mr. Cohen is also a director of the FS Global Credit Opportunities Funds, the FS Global Credit Opportunities Fund A and the FS Global Credit Opportunities Fund D.

David N. Watson has served as a Senior Executive Vice President, Comcast Corporation and President and Chief Executive Officer, Comcast Cable since April 2017 and previously had served as Chief Operating Officer, Comcast Cable for more than five years. Mr. Watson is also a director of Amkor Technology, Inc.

Arthur R. Block has served as an Executive Vice President since March 2015 and previously had served as a Senior Vice President for more than five years. He has been our General Counsel and Secretary for more than five years.

Daniel C. Murdock has served as a Senior Vice President and our Chief Accounting Officer and Controller since March 2017. He has been our Controller since July 2015. Prior to joining our company, Mr. Murdock had been with the U.S. Securities and Exchange Commission where he served as the Deputy Chief Accountant in the agency's Office of the Chief Accountant since 2013. Prior to that, he was Deloitte & Touche's Audit/Industry Professional Practice Director for media and entertainment.

NBCUniversal

Certain information under this Item 10 has been omitted pursuant to General Instruction I(2)(c) to Form 10-K.

The table below sets forth certain information with respect to each of NBCUniversal's executive officers as of December 31, 2018, each of whom has served as such since the close of the NBCUniversal transaction in January 2011, except for Michael J. Cavanagh, who has served since July 2015 and Daniel C. Murdock, who has served since March 2017. The table also sets forth NBCUniversal Holdings' directors as of December 31, 2018.

Name	Title
Brian L. Roberts	Principal Executive Officer
Michael J. Cavanagh	Principal Financial Officer; Director of NBCUniversal Holdings
Stephen B. Burke	Chief Executive Officer and President
David L. Cohen	Senior Executive Vice President; Director of NBCUniversal Holdings
Arthur R. Block	Executive Vice President; Director of NBCUniversal Holdings
Daniel C. Murdock	Senior Vice President; Principal Accounting Officer

For the year ended December 31, 2018, NBCUniversal reimbursed Comcast $55 million for direct services provided by our executive officers.

Item 11: Executive Compensation

Comcast incorporates the information required by this item by reference to its 2019 Proxy Statement.

This information is omitted for NBCUniversal pursuant to General Instruction I(2)(c) to Form 10-K.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Comcast incorporates the information required by this item by reference to its 2019 Proxy Statement.

This information is omitted for NBCUniversal pursuant to General Instruction I(2)(c) to Form 10-K.

Item 13: Certain Relationships and Related Transactions, and Director Independence

Comcast incorporates the information required by this item by reference to its 2019 Proxy Statement.

This information is omitted for NBCUniversal pursuant to General Instruction I(2)(c) to Form 10-K.

Item 14: Principal Accountant Fees and Services

Comcast incorporates the information required by this item by reference to its 2019 Proxy Statement.

NBCUniversal

The Audit Committee of Comcast's Board of Directors appointed Deloitte & Touche LLP as NBCUniversal's independent registered public accounting firm for the years ended December 31, 2018 and 2017. Set forth below are the fees paid or accrued for the services of Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu and their respective affiliates in 2018 and 2017.

(in millions)	**2018**	2017
Audit fees	**$12.8**	$13.2
Audit-related fees	**0.7**	0.8
Tax fees	**0.2**	0.3
All other fees	**0.1**	0.1
	$13.8	$14.4

Audit fees in 2018 and 2017 consisted of fees paid or accrued for services rendered to NBCUniversal and its subsidiaries for the audits of its annual financial statements, reviews of its quarterly financial statements and audit services provided in connection with other statutory or regulatory filings.

Audit-related fees in 2018 and 2017 consisted primarily of fees paid or accrued for due diligence services and attestation services related to contractual and regulatory compliance, and audits associated with employee benefit plans in 2017.

Tax fees in 2018 and 2017 consisted of fees paid or accrued for domestic and foreign tax compliance services.

All other fees in 2018 and 2017 primarily consisted of fees paid or accrued for subscription services.

Preapproval Policy of Audit Committee of Services Performed by Independent Auditors

As a consolidated subsidiary of Comcast, NBCUniversal is subject to the policies of Comcast's Audit Committee regarding the preapproval of services provided by the independent auditors. This policy requires that the Audit Committee preapprove all audit and non-audit services performed by the independent auditors to assure that the services do not impair the auditors' independence. Unless a type of service has received general preapproval, it requires separate preapproval by the Audit Committee. Even if a service has received general preapproval, if the fee associated with the service exceeds $1 million in a single engagement or series of related engagements, it requires separate preapproval. The Audit Committee has delegated its preapproval authority to its Chair.

Part IV

Item 15: Exhibits and Financial Statement Schedules

Comcast

(a) Comcast's consolidated financial statements are filed as a part of this report on Form 10-K in Item 8, Financial Statements and Supplementary Data, and a list of Comcast's consolidated financial statements are found on page 64 of this report. Schedule II, Valuation and Qualifying Accounts, is found on page 155 of this report; all other financial statement schedules are omitted because the required information is not applicable, or because the information required is included in the consolidated financial statements and notes thereto.

(b) Exhibits required to be filed by Item 601 of Regulation S-K (all of which are under Commission File No. 001-32871, except as otherwise noted):

2.1 Agreement for the Sale and Purchase of Share Capital of Sky plc by and among Comcast Bidco Limited, BSKYB Holdco, Inc. and 21st Century Fox UK Nominees Limited, dated as of October 3, 2018 (incorporated by reference to Exhibit 2.1 to Comcast's Current Report on Form 8-K filed on October 4, 2018).

3.1 Amended and Restated Articles of Incorporation of Comcast Corporation (incorporated by reference to Exhibit 3.1 to Comcast's Current Report on Form 8-K filed on December 15, 2015).

3.2 Amended and Restated By-Laws of Comcast Corporation

4.1 Specimen Class A Common Stock Certificate (incorporated by reference to Exhibit 4.1 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2002).

4.2 Indenture, dated January 7, 2003, between Comcast Corporation, the subsidiary guarantor party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee (incorporated by reference to Exhibit 4.4 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2008).

4.3 First Supplemental Indenture, dated March 25, 2003, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, dated January 7, 2003 (incorporated by reference to Exhibit 4.5 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2008).

4.4 Second Supplemental Indenture, dated August 31, 2009, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon, as Trustee, dated January 7, 2003, as supplemented by a First Supplemental Indenture dated March 25, 2003 (incorporated by reference to Exhibit 4.1 to Comcast's Current Report on Form 8-K filed on September 2, 2009).

4.5 Third Supplemental Indenture, dated March 27, 2013, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, dated January 7, 2003, as supplemented by a First Supplemental Indenture dated March 25, 2003 and a second Supplemental Indenture dated August 31, 2009 (incorporated by reference to Exhibit 4.4 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).

4.6 Fourth Supplemental Indenture, dated October 1, 2015, to the Indenture dated January 7, 2003 between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, as supplemented by a First Supplemental Indenture dated March 25, 2003, a second Supplemental Indenture dated August 31, 2009 and a Third Supplemental Indenture dated March 27, 2013 (incorporated by reference to Exhibit 4.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015).

4.7 Senior Indenture dated September 18, 2013, among Comcast Corporation, the guarantors party thereto and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.3 to Comcast's Registration Statement on Form S-3 filed September 18, 2013).

4.8 First Supplemental Indenture dated as of November 17, 2015, to the Senior Indenture dated September 18, 2013, among Comcast Corporation, the guarantors party thereto, and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.4 to Post Effective Amendment No. 2 to Comcast's Registration Statement on Form S-3 filed November 23, 2015).

4.9 Indenture, dated as of April 30, 2010, between NBC Universal, Inc. (n/k/a NBCUniversal Media, LLC) and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4 to the Registration Statement on Form S-4 of NBCUniversal Media, LLC (Commission File No. 333-174175) filed on May 13, 2011).

4.10	First Supplemental Indenture, dated March 27, 2013, to the Indenture between NBCUniversal Media, LLC (f/k/a NBC Universal, Inc.) and The Bank of New York Mellon, as trustee, dated April 30, 2010 (incorporated by reference to Exhibit 4.3 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
4.11	Second Supplemental Indenture, dated October 1, 2015, to the Indenture dated April 30, 2010 between NBC Universal, Inc. (n/k/a NBCUniversal Media, LLC) and The Bank of New York Mellon, as trustee, as supplemented by a First Supplemental Indenture dated March 27, 2013 (incorporated by reference to Exhibit 4.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015).
4.12	Indenture, dated March 19, 2013, among NBCUniversal Enterprise, Inc. (f/k/a Navy Holdings, Inc.), Comcast Corporation, the Cable Guarantors party thereto, and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
	Certain instruments defining the rights of holders of long-term obligation of the registrant and certain of its subsidiaries (the total amount of securities authorized under each of which does not exceed ten percent of the total assets of the registrant and its subsidiaries on a consolidated basis), are omitted pursuant to Item 601(b)(4)(iii)(A) of Regulation S-K. We agree to furnish copies of any such instruments to the SEC upon request.
4.13	Trust Deed dated September 5, 2014 among BSKYB Finance UK plc, British Sky Broadcasting Group plc, the initial guarantors party thereto and BNY Mellon Corporate Trustee Services Limited, as trustee.
4.14	Supplemental Trust Deed dated March 18, 2015 among Sky Group Finance plc (f/k/a BSKYB Finance UK plc), Sky plc (f/k/a British Sky Broadcasting Group plc), the initial guarantors party thereto and BNY Mellon Corporate Trustee Services Limited, as trustee.
10.1	Credit Agreement dated as of May 26, 2016, among Comcast Corporation, the financial institutions party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A., as syndication agent, Morgan Stanley MUFG Partners, LLC, Wells Fargo Bank, National Association and Mizuho Bank, Ltd., as co-documentation agents (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on May 31, 2016).
10.2	Second Amended and Restated Certificate of Incorporation of NBCUniversal Enterprise, Inc. (f/k/a/ Navy Holdings, Inc.), dated March 19, 2013 (incorporated by reference to Exhibit 10.3 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
10.3	Certificate of Designations for Series A Cumulative Preferred Stock of NBCUniversal Enterprise, Inc. (f/k/a/ Navy Holdings, Inc.), dated March 19, 2013 (incorporated by reference to Exhibit 10.4 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
10.4	Amendment to Certificate of Designations for Series A Cumulative Preferred Stock of NBCUniversal Enterprise, Inc. dated March 19, 2013 (incorporated by reference to Exhibit 10.5 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
10.5	Term Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC, as joint lead arrangers and joint bookrunners, dated April 25, 2018 (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on April 25, 2018).
10.6	364-day Bridge Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC as joint lead arrangers and joint bookrunners, dated April 25, 2018 (incorporated by reference to Exhibit 10.2 to Comcast's Current Report on Form 8-K filed on April 25, 2018).
10.7	Amendment No. 1 dated April 27, 2018, to Credit Agreement dated as of May 26, 2016, among Comcast Corporation, the financial institutions party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A., as syndication agent, Morgan Stanley MUFG Partners, LLC, Wells Fargo Bank, National Association and Mizuho Bank, Ltd., as co-documentation agents (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on April 30, 2018).
10.8	Term Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC, as joint lead arrangers and joint bookrunners, dated August 22, 2018 (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on August 22, 2018).
10.9	Amendment No. 1 to 364-Day Bridge Credit Agreement among Comcast, the financial institutions party thereto, and Bank of America, N.A., as administrative agent, and Wells Fargo Bank, National Association, as syndication agent, dated as of August 22, 2018 (incorporated by reference to Exhibit 10.2 to Comcast's Current Report on Form 8-K filed on August 22, 2018).

10.10	Comcast Revolving Credit Agreement Increased Revolving Commitment Activation Notice, dated September 21, 2018 (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on September 24, 2018).
10.11	Comcast Revolving Credit Agreement New Lender Supplement, dated September 21, 2018 (incorporated by reference to Exhibit 10.2 to Comcast's Current Report on Form 8-K filed on September 24, 2018).
10.12	Amendment No. 1 to Term Loan Credit Agreement, dated September 23, 2018 (incorporated by reference to Exhibit 10.3 to Comcast's Current Report on Form 8-K filed on September 24, 2018).
10.13*	Comcast Corporation 2003 Stock Option Plan, as amended and restated December 18, 2018.
10.14*	Comcast Corporation 2002 Deferred Compensation Plan, as amended and restated effective February 10, 2009 (incorporated by reference to Exhibit 10.5 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2009).
10.15*	Comcast Corporation 2005 Deferred Compensation Plan, as amended and restated effective October 17, 2018.
10.16*	Comcast Corporation 2002 Restricted Stock Plan, as amended and restated effective December 18, 2018.
10.17*	Comcast Corporation 2006 Cash Bonus Plan, as amended and restated effective February 18, 2015 (incorporated by reference to Exhibit 10.11 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2015).
10.18*	Comcast Corporation 2002 Non-Employee Director Compensation Plan, as amended and restated effective December 5, 2017.
10.19*	Comcast Corporation 2002 Employee Stock Purchase Plan, as amended and restated effective February 22, 2016 (incorporated by reference to Appendix C to our Definitive Proxy Statement on Schedule 14A filed on April 8, 2016).
10.20*	Comcast-NBCUniversal 2011 Employee Stock Purchase Plan, as amended and restated effective February 22, 2016 (incorporated by reference to Appendix D to our Definitive Proxy Statement on Schedule 14A filed on April 8, 2016).
10.21*	Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of June 1, 2005 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on August 5, 2005).
10.22*	Amendment to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of February 13, 2009 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on February 13, 2009).
10.23*	Amendment No. 2 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of December 31, 2009 (incorporated by reference to Exhibit 10.23 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2009).
10.24*	Amendment No. 3 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of June 30, 2010 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 7, 2010).
10.25*	Amendment No. 4 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of December 31, 2010 (incorporated by reference to Exhibit 10.25 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2010).
10.26*	Amendment No. 5 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of June 30, 2011 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 1, 2011).
10.27*	Amendment No. 6 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of December 15, 2011 (incorporated by reference to Exhibit 10.21 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2011).
10.28*	Amendment No. 7 to Employment Agreement between Comcast Corporation and Brian L. Roberts, effective as of June 30, 2012 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on September 14, 2012).
10.29*	Amendment No. 8 to Employment Agreement between Comcast Corporation and Brian L. Roberts, dated as of December 14, 2012 (incorporated by reference to Exhibit 10.23 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2012).
10.30*	Amendment No. 10 to Employment Agreement with Brian L. Roberts, effective as of June 30, 2013 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 24, 2013).
10.31*	Amendment No. 11 to Employment Agreement with Brian L. Roberts, effective as of December 18, 2013 (incorporated by reference to Exhibit 10.29 to Comcast's Annual Report on Form 10-K filed on February 12, 2014).

10.32*	Amendment No. 12 to Employment Agreement with Brian L. Roberts, effective as of June 30, 2014 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 1, 2014).
10.33*	Amendment No. 13 to Employment Agreement with Brian L. Roberts, effective as of December 9, 2014 (incorporated by reference to Exhibit 10.30 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2014).
10.34*	Amendment No. 14 to Employment Agreement with Brian L. Roberts, dated June 30, 2015 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 7, 2015).
10.35*	Amendment No. 15 to Employment Agreement with Brian L. Roberts, dated December 17, 2015 (incorporated by reference to Exhibit 10.31 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2015).
10.36*	Amendment No. 16 to Employment Agreement with Brian L. Roberts, dated June 30, 2016 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 1, 2016).
10.37*	Amendment No. 17 to Employment Agreement with Brian L. Roberts, dated December 12, 2016 (incorporated by reference to Exhibit 10.30 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2016).
10.38*	Amendment No. 18 to Employment Agreement with Brian L. Roberts, dated June 30, 2017 (incorporated by reference to Exhibit 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017).
10.39*	Employment Agreement with Brian L. Roberts, dated July 26, 2017 (incorporated by reference to Exhibit 10.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017).
10.40*	Employment Agreement between Comcast Corporation and Stephen B. Burke, dated as of December 16, 2009 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on December 22, 2009).
10.41*	Amendment No. 2 to Employment Agreement with Stephen B. Burke, dated as of August 16, 2013 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on August 16, 2013).
10.42*	Amendment No. 3 to Employment Agreement with Stephen B. Burke dated as of July 25, 2016 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on July 28, 2016).
10.43*	Employment Agreement between Comcast Corporation and David L. Cohen, dated as of October 23, 2015 (incorporated by reference to Exhibit 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015).
10.44*	Employment Agreement between Comcast Corporation and Neil Smit, dated as of December 22, 2014 (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on December 23, 2014).
10.45*	Employment Agreement between Comcast Corporation and Neil Smit, dated as of April 25, 2017 (incorporated by reference to Exhibit 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.46*	Form of Amendment, dated as of December 16, 2008, to the Employment Agreement with Brian L. Roberts (incorporated by reference to Exhibit 10.38 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2008).
10.47*	Form of Amendment, dated as of December 14, 2012, to the Employment Agreements with Brian L. Roberts and Stephen B. Burke (incorporated by reference to Exhibit 10.41 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2012).
10.48*	Employment Agreement dated May 10, 2015 between Comcast Corporation and Michael J. Cavanagh (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on May 11, 2015).
10.49*	Employment Agreement dated December 21, 2018 between Comcast Corporation and Michael J. Cavanagh (incorporated by reference to Exhibit 99.1 to Comcast's Current Report on Form 8-K filed on December 21, 2018).
10.50*	Employment Agreement dated April 2, 2018 between Comcast Corporation and David N. Watson (incorporated by reference to Exhibit 10.4 to Comcast's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018).
10.51*	Form of Non-Qualified Stock Option under the Comcast Corporation 2003 Stock Option Plan (incorporated by reference to Exhibit 10.40 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2008).
10.52*	Form of Non-Qualified Stock Option under the Comcast Corporation 2003 Stock Option Plan (incorporated by reference to Exhibit 10.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016).
10.53*	Form of Non-Qualified Stock Option under the Comcast Corporation 2003 Stock Option Plan (incorporated by reference to Exhibit 10.42 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2016).

10.54*	Form of Non-Qualified Stock Option under the Comcast Corporation 2003 Stock Option Plan (incorporated by reference to Exhibit 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.55*	Form of Restricted Stock Unit Award under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.6 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013).
10.56*	Form of Restricted Stock Unit Award under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016).
10.57*	Form of Restricted Stock Unit Award and Long-Term Incentive Awards Summary Schedule under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended September 30, 2015).
10.58*	Form of Restricted Stock Unit Award and Long-Term Incentive Awards Summary Schedule under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.59*	Form of Restricted Stock Unit Award and Long-Term Incentive Awards Summary Schedule under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.5 to Comcast's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018).
10.60*	Form of Restricted Stock Unit Award under the Comcast Corporation 2002 Restricted Stock Plan (incorporated by reference to Exhibit 10.2 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.61*	Form of Long-Term Incentive Awards Summary Schedule (incorporated by reference to Exhibit 10.3 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.62*	Form of Airplane Time Sharing Agreement (incorporated by reference to Exhibit 10.60 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2014).
10.63*	Form of Director Indemnification Agreement (incorporated by reference to Exhibit 10.3 to Comcast's Quarterly Report on Form 10-Q for the quarter ended June 30, 2009).
10.64	Second Amended and Restated Shareholders Agreement, dated as of January 10, 2019, among Atairos Group, Inc., Comcast AG Holdings, LLC, Comcast Spectacor Ventures, LLC, Atairos Partners, L.P., Atairos Management, L.P. and Comcast Corporation.
10.65	Wireless Operational Cooperation Agreement dated as of May 5, 2017 between Comcast Corporation and Charter Communications, Inc. (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on May 8, 2017).
10.66	Consultant Agreement, dated as of January 20, 1987, between Steven Spielberg and Universal City Florida Partners (incorporated by reference to Exhibit 10.49 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.67	Amendment dated February 5, 2001 to the Consultant Agreement dated as of January 20, 1987, between the Consultant and Universal City Florida Partners (incorporated by reference to Exhibit 10.50 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.68	Amendment to the Consultant Agreement, dated as of October 18, 2009, between Steven Spielberg, Diamond Lane Productions, Inc. and Universal City Development Partners, Ltd. (incorporated by reference to Exhibit 10.52 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.69	Letter Agreement dated July 15, 2003, among Diamond Lane Productions, Vivendi Universal Entertainment LLLP and Universal City Development Partners, Ltd. (incorporated by reference to Exhibit 10.51 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
21.1	List of subsidiaries.
23.1	Consent of Deloitte & Touche LLP.
31.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

101	The following financial statements from Comcast Corporation's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the Securities and Exchange Commission on January 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (1) the Consolidated Statement of Income; (2) the Consolidated Statement of Comprehensive Income; (3) the Consolidated Statement of Cash Flows; (4) the Consolidated Balance Sheet; (5) the Consolidated Statement of Changes in Equity; and (6) the Notes to Consolidated Financial Statements.
*	Constitutes a management contract or compensatory plan or arrangement.

NBCUniversal

(a) NBCUniversal's consolidated financial statements are filed as a part of this report on Form 10-K and a list of the consolidated financial statements are found on page 128 of this report. Schedule II - Valuation and Qualifying Accounts is found on page 155 of this report; all other financial statement schedules are omitted because the required information is not applicable, or because the information required is included in the consolidated financial statements and notes thereto.

(b) Exhibits required to be filed by Item 601 of Regulation S-K:

3.1	Certificate of Formation of NBCUniversal Media, LLC (incorporated by reference to Exhibit 3.1 to NBCUniversal's Registration Statement on Form S-4 filed on May 13, 2011).
3.2	Certificate of Amendment to Certificate of Formation of NBCUniversal Media, LLC (incorporated by reference to Exhibit 3.2 to NBCUniversal's Registration Statement on Form S-4 filed on August 25, 2011).
3.3	Limited Liability Company Agreement of NBCUniversal Media, LLC (incorporated by reference to Exhibit 3.2 to Amendment No. 2 to NBCUniversal's Registration Statement on Form S-4 filed on July 12, 2011).
3.4	First Amendment to Limited Liability Company Agreement of NBCUniversal Media, LLC
4.1	Indenture, dated as of April 30, 2010 between NBC Universal, Inc. (n/k/a NBCUniversal Media, LLC) and The Bank of New York Mellon, as Trustee (incorporated by reference to Exhibit 4 to NBCUniversal's Registration Statement on Form S-4 filed on May 13, 2011).
4.2	First Supplemental Indenture, dated March 27, 2013, to the Indenture between NBCUniversal Media, LLC (f/k/a NBC Universal, Inc.) and The Bank of New York Mellon, as trustee, dated April 30, 2010 (incorporated by reference to Exhibit 4.3 of the Quarterly Report on Form 10-Q of Comcast Corporation for the quarter ended March 31, 2013).
4.3	Second Supplemental Indenture, dated October 1, 2015, to the Indenture dated April 30, 2010 between NBC Universal, Inc. (n/k/a NBCUniversal Media, LLC) and The Bank of New York Mellon, as trustee, as supplemented by a First Supplemental Indenture dated March 27, 2013 (incorporated by reference to Exhibit 4.2 of the Quarterly Report on Form 10-Q of Comcast Corporation for the quarter ended September 30, 2015).
4.4	Indenture, dated January 7, 2003, between Comcast Corporation, the subsidiary guarantor party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee (incorporated by reference to Exhibit 4.4 to the Annual Report on Form 10-K of Comcast Corporation for the year ended December 31, 2008).
4.5	First Supplemental Indenture, dated March 25, 2003, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, dated January 7, 2003 (incorporated by reference to Exhibit 4.5 to the Annual Report on Form 10-K of Comcast Corporation for the year ended December 31, 2008).
4.6	Second Supplemental Indenture, dated August 31, 2009, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon, as Trustee, dated January 7, 2003, as supplemented by a First Supplemental Indenture dated March 25, 2003 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Comcast Corporation filed on September 2, 2009).
4.7	Third Supplemental Indenture, dated March 27, 2013, to the Indenture between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, dated January 7, 2003, as supplemented by a First Supplemental Indenture dated March 25, 2003 and a Second Supplemental Indenture dated August 31, 2009 (incorporated by reference to Exhibit 4.4 of the Quarterly Report on Form 10-Q of Comcast Corporation for the quarter ended March 31, 2013).
4.8	Fourth Supplemental Indenture, dated October 1, 2015, to the Indenture dated January 7, 2003 between Comcast Corporation, the subsidiary guarantors party thereto, and The Bank of New York Mellon (f/k/a The Bank of New York), as trustee, as supplemented by a First Supplemental Indenture dated March 25, 2003, a second Supplemental Indenture dated August 31, 2009 and a Third Supplemental Indenture dated March 27, 2013 (incorporated by reference to Exhibit 4.1 of the Quarterly Report on Form 10-Q of Comcast Corporation for the quarter ended September 30, 2015).
4.9	Senior Indenture dated September 18, 2013, among Comcast Corporation, the guarantors party thereto and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.3 to Comcast's Registration Statement on Form S-3 filed September 18, 2013).

4.10	First Supplemental Indenture dated as of November 17, 2015, to the Senior Indenture dated September 18, 2013, among Comcast Corporation, the guarantors party thereto, and The Bank of New York Mellon, as trustee (incorporated by reference to Exhibit 4.4 to Post Effective Amendment No. 2 to Comcast's Registration Statement on Form S-3 filed November 23, 2015).
10.1	Second Amended and Restated Limited Liability Company Agreement of NBCUniversal, LLC, dated March 19, 2013 (incorporated by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q of Comcast Corporation for the quarter ended March 31, 2013).
10.2	Credit Agreement dated as of May 26, 2016, among Comcast Corporation, the financial institutions party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A., as syndication agent, Morgan Stanley MUFG Partners, LLC, Wells Fargo Bank, National Association and Mizuho Bank, Ltd., as co-documentation agents (incorporated by reference to Exhibit 10.1 to Comcast's Current Report on Form 8-K filed on May 31, 2016.
10.3	Consultant Agreement, dated as of January 20, 1987, between Steven Spielberg and Universal City Florida Partners (incorporated by reference to Exhibit 10.49 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.4	Amendment dated February 5, 2001 to the Consultant Agreement dated as of January 20, 1987, between the Consultant and Universal City Florida Partners (incorporated by reference to Exhibit 10.50 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.5	Amendment to the Consultant Agreement, dated as of October 18, 2009, between Steven Spielberg, Diamond Lane Productions, Inc. and Universal City Development Partners, Ltd. (incorporated by reference to Exhibit 10.52 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.6	Letter Agreement dated July 15, 2003, among Diamond Lane Productions, Vivendi Universal Entertainment LLLP and Universal City Development Partners, Ltd. (incorporated by reference to Exhibit 10.51 to the Registration Statement on Form S-4 of Universal City Development Partners, Ltd. and UCDP Finance, Inc. filed on January 20, 2010 (File No. 333-164431)).
10.7	Loan Agreement dated as of May 1, 2017, among USJ Co., Ltd., the financial institutions party thereto (the "lenders") and Sumitomo Mitsui Banking Corporation, as agent (incorporated by reference to Exhibit 10.1 to NBCUniversal's Current Report on Form 8-K filed on May 3, 2017).
10.8	Term Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC, as joint lead arrangers and joint bookrunners, dated April 25, 2018 (incorporated by reference to Exhibit 10.1 to NBCUniversal's Current Report on Form 8-K filed on April 25, 2018).
10.9	364-day Bridge Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC as joint lead arrangers and joint bookrunners, dated April 25, 2018 (incorporated by reference to Exhibit 10.2 to NBCUniversal's Current Report on Form 8-K filed on April 25, 2018).
10.10	Amendment No. 1 dated April 27, 2018, to Credit Agreement dated as of May 26, 2016, among Comcast Corporation, the financial institutions party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Citibank, N.A., as syndication agent, Morgan Stanley MUFG Partners, LLC, Wells Fargo Bank, National Association and Mizuho Bank, Ltd., as co-documentation agents (incorporated by reference to Exhibit 10.1 to NBCUniversal's Current Report on Form 8-K filed on April 30, 2018).
10.11	Term Loan Credit Agreement among Comcast, the financial institutions party thereto, Bank of America, N.A., as administrative agent, Wells Fargo Bank, National Association, as syndication agent, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and Wells Fargo Securities LLC, as joint lead arrangers and joint bookrunners, dated August 22, 2018 (incorporated by reference to Exhibit 10.1 to NBCUniversal's Current Report on Form 8-K filed on August 22, 2018).
10.12	Amendment No. 1 to 364-Day Bridge Credit Agreement among Comcast, the financial institutions party thereto, and Bank of America, N.A., as administrative agent, and Wells Fargo Bank, National Association, as syndication agent, dated as of August 22, 2018 (incorporated by reference to Exhibit 10.2 to NBCUniversal's Current Report on Form 8-K filed on August 22, 2018).

10.13	Comcast Revolving Credit Agreement Increased Revolving Commitment Activation Notice, dated September 21, 2018 (incorporated by reference to Exhibit 10.1 to NBCUniversal's Current Report on Form 8-K filed on September 24, 2018).
10.14	Comcast Revolving Credit Agreement New Lender Supplement, dated September 21, 2018 (incorporated by reference to Exhibit 10.2 to NBCUniversal's Current Report on Form 8-K filed on September 24, 2018).
10.15	Amendment No. 1 to Term Loan Credit Agreement, dated September 23, 2018 (incorporated by reference to Exhibit 10.3 to NBCUniversal's Current Report on Form 8-K filed on September 24, 2018).
23.2	Consent of Deloitte & Touche LLP.
31.2	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial statements from NBCUniversal Media, LLC's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the Securities and Exchange Commission on January 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (1) the Consolidated Statement of Income; (2) the Consolidated Statement of Comprehensive Income; (3) the Consolidated Statement of Cash Flows; (4) the Consolidated Balance Sheet; (5) the Consolidated Statement of Changes in Equity; and (6) the Notes to Consolidated Financial Statements.

Item 16: Form 10-K Summary

None.

Signatures

Comcast

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in Philadelphia, Pennsylvania on January 31, 2019.

By: /s/ BRIAN L. ROBERTS
Brian L. Roberts
Chairman and CEO

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BRIAN L. ROBERTS Brian L. Roberts	Chairman and CEO; Director (Principal Executive Officer)	January 31, 2019
/s/ MICHAEL J. CAVANAGH Michael J. Cavanagh	Senior Executive Vice President and CFO (Principal Financial Officer)	January 31, 2019
/s/ DANIEL C. MURDOCK Daniel C. Murdock	Senior Vice President, Chief Accounting Officer and Controller (Principal Accounting Officer)	January 31, 2019
/s/ KENNETH J. BACON Kenneth J. Bacon	Director	January 31, 2019
/s/ MADELINE S. BELL Madeline S. Bell	Director	January 31, 2019
/s/ SHELDON M. BONOVITZ Sheldon M. Bonovitz	Director	January 31, 2019
/s/ EDWARD D. BREEN Edward D. Breen	Director	January 31, 2019
/s/ GERALD L. HASSELL Gerald L. Hassell	Director	January 31, 2019
/s/ JEFFREY A. HONICKMAN Jeffrey A. Honickman	Director	January 31, 2019
/s/ MARITZA G. MONTIEL Maritza G. Montiel	Director	January 31, 2019
/s/ ASUKA NAKAHARA Asuka Nakahara	Director	January 31, 2019
/s/ DAVID C. NOVAK David C. Novak	Director	January 31, 2019

NBCUniversal

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in Philadelphia, Pennsylvania on January 31, 2019.

NBCUNIVERSAL MEDIA, LLC
By: NBCUNIVERSAL, LLC, its sole member

By: /s/ STEPHEN B. BURKE
Stephen B. Burke
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ BRIAN L. ROBERTS Brian L. Roberts	Principal Executive Officer of NBCUniversal Media, LLC	January 31, 2019
/s/ MICHAEL J. CAVANAGH Michael J. Cavanagh	Principal Financial Officer of NBCUniversal Media, LLC; Director of NBCUniversal, LLC	January 31, 2019
/s/ ARTHUR R. BLOCK Arthur R. Block	Director of NBCUniversal, LLC	January 31, 2019
/s/ DAVID L. COHEN David L. Cohen	Director of NBCUniversal, LLC	January 31, 2019
/s/ DANIEL C. MURDOCK Daniel C. Murdock	Principal Accounting Officer of NBCUniversal Media, LLC	January 31, 2019

NBCUniversal Media, LLC Financial Statements and Supplementary Data

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Report of Independent Registered Public Accounting Firm

To the Member of NBCUniversal Media, LLC
New York, New York

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of NBCUniversal Media, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, cash flows and changes in equity for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Deloitte & Touche LLP
New York, New York
January 31, 2019

We have served as the Company's auditor since 2011.

NBCUniversal Media, LLC
Consolidated Statement of Income

Year ended December 31 (in millions)	2018	2017	2016
Revenue	**$ 35,895**	$ 32,950	$ 31,398
Costs and Expenses:			
Programming and production	**16,330**	14,276	14,424
Other operating and administrative	**7,980**	7,687	7,033
Advertising, marketing and promotion	**2,952**	2,806	2,778
Depreciation	**1,001**	994	861
Amortization	**1,107**	1,047	944
Other operating gains	**(141)**	(337)	—
Total costs and expenses	**29,229**	26,473	26,040
Operating income	**6,666**	6,477	5,358
Interest expense	**(489)**	(727)	(595)
Investment and other income (loss), net	**(521)**	(144)	24
Income before income taxes	**5,656**	5,606	4,787
Income tax expense	**(351)**	(392)	(305)
Net income	**5,305**	5,214	4,482
Less: Net income attributable to noncontrolling interests	**68**	134	311
Net income attributable to NBCUniversal	**$ 5,237**	$ 5,080	$ 4,171

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Comprehensive Income

Year ended December 31 (in millions)		2018		2017		2016
Net income	**$**	**5,305**	$	5,214	$	4,482
Unrealized gains (losses) on marketable securities, net		**—**		(233)		—
Deferred gains (losses) on cash flow hedges, net		**3**		(13)		24
Employee benefit obligations, net		**14**		112		15
Currency translation adjustments, net		**(16)**		189		112
Comprehensive income		**5,306**		5,269		4,633
Less: Net income attributable to noncontrolling interests		**68**		134		311
Less: Other comprehensive income (loss) attributable to noncontrolling interests		**(41)**		81		74
Comprehensive income attributable to NBCUniversal	**$**	**5,279**	$	5,054	$	4,248

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Cash Flows

Year ended December 31 (in millions)	2018	2017	2016
Operating Activities			
Net income	**$ 5,305**	$ 5,214	$ 4,482
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and other operating gains	**1,967**	1,704	1,805
Net (gain) loss on investment activity and other	**689**	428	87
Deferred income taxes	**(39)**	2	89
Changes in operating assets and liabilities, net of effects of acquisitions and divestitures:			
Current and noncurrent receivables, net	**(452)**	(594)	(502)
Film and television costs, net	**35**	(199)	(509)
Accounts payable and accrued expenses related to trade creditors	**57**	(43)	51
Other operating assets and liabilities	**341**	564	(606)
Net cash provided by operating activities	**7,903**	7,076	4,897
Investing Activities			
Capital expenditures	**(1,730)**	(1,502)	(1,452)
Cash paid for intangible assets	**(448)**	(295)	(283)
Note receivable from Comcast	**(2,054)**	—	—
Construction of Universal Beijing Resort	**(460)**	(71)	(22)
Acquisitions, net of cash acquired	**(80)**	(140)	(205)
Proceeds from sales of businesses and investments	**70**	45	109
Purchases of investments	**(587)**	(490)	(290)
Other	**(51)**	586	(90)
Net cash provided by (used in) investing activities	**(5,340)**	(1,867)	(2,233)
Financing Activities			
Proceeds from borrowings	**692**	3,948	—
Repurchases and repayments of debt	**(438)**	(3,498)	(1,565)
Proceeds from (repayments of) borrowings from Comcast, net	**(1,777)**	(872)	928
Distributions to member	**(1,627)**	(1,968)	(1,606)
Distributions to noncontrolling interests	**(205)**	(209)	(210)
Purchase of Universal Studios Japan noncontrolling interests	**—**	(2,299)	—
Other	**(121)**	79	356
Net cash provided by (used in) financing activities	**(3,476)**	(4,819)	(2,097)
Increase (decrease) in cash, cash equivalents and restricted cash	**(913)**	390	567
Cash, cash equivalents and restricted cash, beginning of year	**2,377**	1,987	1,420
Cash, cash equivalents and restricted cash, end of year	**$ 1,464**	$ 2,377	$ 1,987

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Balance Sheet

December 31 (in millions)		2018		2017
Assets				
Current Assets:				
Cash and cash equivalents	**$**	**1,444**	$	2,347
Receivables, net		**7,293**		6,967
Programming rights		**1,323**		1,606
Note receivable from Comcast		**2,054**		—
Other current assets		**1,133**		1,037
Total current assets		**13,247**		11,957
Film and television costs		**7,292**		7,082
Investments		**1,680**		1,816
Property and equipment, net		**13,189**		11,346
Goodwill		**24,118**		23,989
Intangible assets, net		**13,666**		13,306
Other noncurrent assets, net		**1,822**		1,804
Total assets	**$**	**75,014**	$	71,300
Liabilities and Equity				
Current Liabilities:				
Accounts payable and accrued expenses related to trade creditors	**$**	**1,933**	$	1,663
Accrued participations and residuals		**1,808**		1,644
Program obligations		**965**		745
Deferred revenue		**1,118**		1,457
Accrued expenses and other current liabilities		**2,195**		2,394
Note payable to Comcast		**54**		1,831
Current portion of long-term debt		**151**		198
Total current liabilities		**8,224**		9,932
Long-term debt, less current portion		**12,731**		12,275
Accrued participations, residuals and program obligations		**1,712**		1,490
Other noncurrent liabilities		**5,177**		4,153
Commitments and contingencies (Note 14)				
Redeemable noncontrolling interests		**389**		409
Equity:				
Member’s capital		**45,618**		42,148
Accumulated other comprehensive income (loss)		**254**		(20)
Total NBCUniversal member’s equity		**45,872**		42,128
Noncontrolling interests		**909**		913
Total equity		**46,781**		43,041
Total liabilities and equity	**$**	**75,014**	$	71,300

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Changes in Equity

(in millions)	Redeemable Noncontrolling Interests	Member's Capital	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Equity
Balance, December 31, 2015	$ 372	$ 32,834	$ (212)	$ 1,681	$ 34,303
Distributions to member		(1,606)			(1,606)
Contributions from (distributions to) noncontrolling interests, net	(59)			(148)	(148)
DreamWorks Animation contributions		3,566		89	3,655
Other comprehensive income (loss)			77	74	151
Other	168	(71)		158	87
Net income	49	4,171		262	4,433
Balance, December 31, 2016	530	38,894	(135)	2,116	40,875
Distributions to member		(1,968)			(1,968)
Contributions from (distributions to) noncontrolling interests, net	(65)			(120)	(120)
Contribution from member		662			662
Other comprehensive income (loss)			(26)	81	55
Purchase of Universal Studios Japan noncontrolling interests		(704)	141	(1,736)	(2,299)
Other	(84)	184		466	650
Net income	28	5,080		106	5,186
Balance, December 31, 2017	409	42,148	(20)	913	43,041
Cumulative effects of adoption of accounting standards		**(232)**	**232**		**—**
Distributions to member		**(1,627)**			**(1,627)**
Contributions from (distributions to) noncontrolling interests, net	**(52)**			**299**	**299**
Other comprehensive income (loss)			**42**	**(41)**	**1**
Other	**(4)**	**92**		**(294)**	**(202)**
Net income	**36**	**5,237**		**32**	**5,269**
Balance, December 31, 2018	**$ 389**	**$ 45,618**	**$ 254**	**$ 909**	**$ 46,781**

See accompanying notes to consolidated financial statements.

Note 1: Basis of Presentation and Summary of Significant Accounting Policies

Unless indicated otherwise, throughout these notes to the consolidated financial statements, we refer to NBCUniversal and its consolidated subsidiaries as "we," "us" and "our." We are one of the world's leading media and entertainment companies that develops, produces and distributes entertainment, news and information, sports, and other content for global audiences, and owns and operates theme parks worldwide.

We present our operations as the following four reportable business segments: Cable Networks, Broadcast Television, Filmed Entertainment and Theme Parks. See Note 2 for additional information on our reportable business segments.

Basis of Presentation

The accompanying consolidated financial statements include all entities in which we have a controlling voting interest and variable interest entities ("VIEs") required to be consolidated in accordance with generally accepted accounting principles in the United States ("GAAP"). Transactions between NBCUniversal and both Comcast and Comcast's consolidated subsidiaries are reflected in these consolidated financial statements and disclosed as related party transactions when material.

We translate assets and liabilities of our foreign operations where the functional currency is the local currency, primarily the Japanese yen, euro, British pound and Chinese renminbi, into U.S. dollars at the exchange rate as of the balance sheet date and translate revenue and expenses using average monthly exchange rates. The related translation adjustments are recorded as a component of accumulated other comprehensive income (loss) in our consolidated balance sheet. Any foreign currency transaction gains or losses are included in our consolidated statement of income.

Accounting Policies

Our consolidated financial statements are prepared in accordance with GAAP, which require us to select accounting policies, including in certain cases industry-specific policies, and make estimates that affect the reported amount of assets, liabilities, revenue and expenses, and the related disclosure of contingent assets and contingent liabilities. Actual results could differ from these estimates. We believe that the judgments and related estimates for the following items are critical in the preparation of our consolidated financial statements:

- film and television costs (see Note 4)
- goodwill and intangible assets (see Note 11)

In addition, the following accounting policy is specific to the industries in which we operate:

- capitalization and amortization of film and television costs (see Note 4)

Information on other accounting policies and methods that we use in the preparation of our consolidated financial statements are included, where applicable, in their respective footnotes that follow. Below is a discussion of accounting policies and methods used in our consolidated financial statements that are not presented within other footnotes.

Advertising Expenses

Advertising costs are expensed as incurred.

Cash Equivalents

The carrying amounts of our cash equivalents approximate their fair values. Our cash equivalents consist primarily of money market funds and U.S. government obligations, as well as commercial paper and certificates of deposit with maturities of three months or less when purchased.

Derivative Financial Instruments

We use derivative financial instruments to manage our exposure to the risks associated with fluctuations in foreign exchange rates and interest rates. Our objective is to manage the financial and operational exposure arising from these risks by offsetting gains and losses on the underlying exposures with gains and losses on the derivatives used to economically hedge them.

Our derivative financial instruments are recorded in our consolidated balance sheet at fair value. The impact of our derivative financial instruments on our consolidated financial statements was not material in any of the periods presented.

Fair Value Measurements

The accounting guidance related to fair value measurements establishes a hierarchy based on the types of inputs used for the various valuation techniques (market approach, income approach and cost approach). The levels of the hierarchy are described below.

- Level 1: Values are determined using quoted market prices for identical financial instruments in an active market
- Level 2: Values are determined using quoted prices for similar financial instruments and valuation models whose inputs are observable
- Level 3: Values are determined using pricing models that use significant inputs that are primarily unobservable, discounted cash flow methodologies or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation

We use these levels of hierarchy to measure the fair value of certain financial instruments on a recurring basis, such as for investments; on a non-recurring basis, such as for acquisitions and impairment testing; for disclosure purposes, such as long-term debt; and for other applications, as discussed in their respective footnotes. Our assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the valuation and classification within the fair value hierarchy.

Note 2: Segment Information

Our Cable Networks segment consists primarily of a diversified portfolio of cable television networks. Our Cable Networks segment is comprised of our national cable networks that provide a variety of entertainment, news and information, and sports content; our regional sports and news networks; our international cable networks; our cable television studio production operations; and our various digital properties.

Our Broadcast Television segment consists primarily of the NBC and Telemundo broadcast networks, our NBC and Telemundo owned local broadcast television stations, the NBC Universo national cable network, our broadcast television studio production operations, and our various digital properties.

Our Filmed Entertainment segment primarily produces, acquires, markets and distributes filmed entertainment worldwide. Our films are produced primarily under the Universal Pictures, Illumination, DreamWorks Animation and Focus Features names.

Our Theme Parks segment consists primarily of our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. In addition, along with a consortium of Chinese state-owned companies, we are developing a Universal theme park and resort in Beijing, China.

We use Adjusted EBITDA to evaluate the profitability of our operating segments, and the components of net income attributable to NBCUniversal excluded from Adjusted EBITDA are not separately evaluated. To be consistent with our current management reporting presentation, certain 2018, 2017 and 2016 operating results were reclassified related to certain NBCUniversal businesses now presented in Headquarters and Other. We do not present a measure of total assets for our reportable business segments as this information is not used by management to allocate resources and capital. Our financial data by business segment is presented in the tables below.

(in millions)	Revenue	Adjusted EBITDA[d]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2018					
Cable Networks[a]	$ 11,773	$ 4,428	$ 738	$ 42	$ 23
Broadcast Television[a]	11,439	1,657	146	204	81
Filmed Entertainment	7,152	734	145	35	25
Theme Parks	5,683	2,455	660	1,143	173
Headquarters and Other[b]	212	(645)	419	306	146
Eliminations[a][c]	(364)	4	—	—	—
Total	**$ 35,895**	**$ 8,633**	**$ 2,108**	**$ 1,730**	**$ 448**

NBCUniversal Media, LLC

(in millions)	Revenue	Adjusted EBITDA[d]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2017					
Cable Networks	$ 10,497	$ 4,053	$ 755	$ 33	$ 19
Broadcast Television	9,563	1,251	133	180	22
Filmed Entertainment	7,595	1,276	109	58	23
Theme Parks	5,443	2,384	648	960	78
Headquarters and Other[b]	179	(779)	396	271	153
Eliminations[c]	(327)	(4)	—	—	—
Total	$ 32,950	$ 8,181	$ 2,041	$ 1,502	$ 295

(in millions)	Revenue	Adjusted EBITDA[d]	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2016					
Cable Networks[a]	$ 10,324	$ 3,681	$ 745	$ 32	$ 20
Broadcast Television[a]	10,085	1,293	125	153	19
Filmed Entertainment	6,229	662	47	33	16
Theme Parks	4,946	2,190	512	922	72
Headquarters and Other[b]	157	(674)	376	312	156
Eliminations[a][c]	(343)	11	—	—	—
Total	$ 31,398	$ 7,163	$ 1,805	$ 1,452	$ 283

(a) The revenue and operating costs and expenses associated with our broadcast of the 2018 PyeongChang Olympics and the 2016 Rio Olympics were reported in our Cable Networks and Broadcast Television segments. The revenue and operating costs and expenses associated with our broadcast of the 2018 Super Bowl were reported in our Broadcast Television segment. Included in Eliminations are transactions relating to these events that our Broadcast Television and Cable Networks segments enter into with our other segments.

(b) Headquarters and Other activities include costs associated with overhead, allocations, personnel and headquarter initiatives.

(c) Eliminations are transactions that our segments enter into with one another, which consisted primarily of the licensing of film and television content from our Filmed Entertainment and Broadcast Television segments to our Cable Networks segment; for segment reporting, revenue is recognized as the programming rights asset for the licensed content is amortized based on third-party revenue.

(d) We use Adjusted EBITDA as the measure of profit or loss for our operating segments. Adjusted EBITDA is defined as net income attributable to NBCUniversal before net (income) loss attributable to noncontrolling interests, income tax expense, investment and other income (loss), net, interest expense, depreciation and amortization expense, and other operating gains and losses (such as impairment charges related to fixed and intangible assets and gains or losses on the sale of long-lived assets), if any. From time to time we may exclude from Adjusted EBITDA the impact of certain events, gains, losses or other charges (such as significant legal settlements) that affect the period-to-period comparability of our operating performance. Our reconciliation of the aggregate amount of Adjusted EBITDA for our reportable segments to consolidated income before income taxes is presented in the table below.

Year ended December 31 (in millions)	2018	2017	2016
Adjusted EBITDA	$ 8,633	$ 8,181	$ 7,163
Depreciation	(1,001)	(994)	(861)
Amortization	(1,107)	(1,047)	(944)
Other operating gains	141	337	—
Interest expense	(489)	(727)	(595)
Investment and other income (loss), net	(521)	(144)	24
Income before income taxes	$ 5,656	$ 5,606	$ 4,787

Note 3: Revenue

Year ended December 31 (in millions)	2018	2017	2016
Distribution	**$ 6,826**	$ 6,081	$ 5,978
Advertising	**3,587**	3,359	3,530
Content licensing and other	**1,360**	1,057	816
Total Cable Networks	**11,773**	10,497	10,324
Advertising	**7,010**	5,654	6,834
Content licensing	**2,182**	2,114	1,837
Distribution and other	**2,247**	1,795	1,414
Total Broadcast Television	**11,439**	9,563	10,085
Theatrical	**2,111**	2,192	1,560
Content licensing	**2,899**	2,956	2,518
Home entertainment	**1,048**	1,287	1,182
Other	**1,094**	1,160	969
Total Filmed Entertainment	**7,152**	7,595	6,229
Total Theme Parks	**5,683**	5,443	4,946
Headquarters and Other	**212**	179	157
Eliminations[(a)]	**(364)**	(327)	(343)
Total NBCUniversal	**$ 35,895**	$ 32,950	$ 31,398

(a) Included in Eliminations are transactions that our segments enter into with one another. See Note 2 for a description of these transactions.

We operate primarily in the United States, but also in select international markets primarily in Europe and Asia. The table below summarizes revenue by geographic location.

Year ended December 31 (in millions)	2018	2017	2016
United States	**$ 28,309**	$ 25,303	$ 24,907
Foreign	**7,586**	7,647	6,491
Total revenue	**$ 35,895**	$ 32,950	$ 31,398

Distribution

Our Cable Networks segment generates distribution revenue from the distribution of our cable network programming to traditional and virtual multichannel video providers. Our Broadcast Television segment generates distribution revenue from the fees received under retransmission consent agreements and associated fees received from NBC-affiliated local broadcast television stations.

Distribution revenue is accounted for as a license of functional intellectual property and is recognized as programming is provided on a monthly basis, generally under multiyear agreements. Monthly fees received under distribution agreements with multichannel video providers are generally based on the number of subscribers. Payment terms and conditions vary by contract type, although terms generally include payment within 30 to 60 days.

Advertising

Our Cable Networks and Broadcast Television segments generate advertising revenue from the sale of advertising on our cable and broadcast networks, our owned local broadcast television stations and various digital properties.

We enter into advertising arrangements with customers and have determined that a contract exists once all terms and conditions are agreed upon, typically when the number of advertising units is specifically identified and the timing of airing is scheduled. Advertisements are generally aired or viewed within one year once all terms are agreed upon. Advertising revenue is recognized, net of agency commissions, in the period in which advertisements are aired or viewed and payment occurs thereafter, with payment generally required within 30 days. In some instances, we guarantee audience ratings for the advertisements. To the extent there is a shortfall in contracts where the ratings were guaranteed, a portion of the revenue is deferred until the shortfall is settled, typically by providing additional advertising units generally within one year of the original airing.

Theatrical

Our Filmed Entertainment segment generates theatrical revenue from the worldwide theatrical release of our produced and acquired films for exhibition in movie theaters. Theatrical revenue is affected by the timing, nature and number of films released in movie

theaters and their acceptance by audiences. It is also affected by the number of exhibition screens, ticket prices, the percentage of ticket sale retention by the exhibitors and the popularity of competing films at the time our films are released. We recognize theatrical revenue as the films are viewed and exhibited in theaters and payment generally occurs within 30 days after exhibition.

Content Licensing

Our Cable Networks, Broadcast Television and Filmed Entertainment segments generate revenue from the licensing of our owned film and television content in the United States and internationally to cable, broadcast and premium networks and subscription video on demand services. Our content licensing agreements generally include fixed pricing and span multiple years. For example, following a film's theatrical release, our Filmed Entertainment segment may license the exhibition rights of a film to different customers over multiple successive distribution windows.

We recognize revenue when the content is delivered and available for use by the licensee. When the term of an existing agreement is renewed or extended, we recognize revenue at the later of when the content is available or when the renewal or extension period begins. Payment terms and conditions vary by contract type, although payments are generally collected over the license term. The amount of future revenue to be earned related to fixed pricing under existing agreements primarily relates to our Filmed Entertainment segment, which at any given time equals approximately 1 to 2 years of our annual Filmed Entertainment content licensing revenue. The majority of this revenue will be recognized within 2 years. This amount may fluctuate from period to period depending on the timing of the releases and the availability of content under existing agreements and may not represent the total content licensing revenue expected to be recognized as it does not include revenue from future agreements or from variable pricing or optional purchases under existing agreements.

For our content licensing agreements that include variable pricing, such as pricing based on the number of subscribers to a subscription video on demand service sold by our customers, we generally recognize revenue as our customers sell to their subscribers.

Home Entertainment

Our Filmed Entertainment segment generates revenue from the sale of our produced and acquired films on standard-definition digital video discs and Blu-ray discs (together, "DVDs") and through digital distribution services. Our Cable Networks and Broadcast Television networks also generate revenue from the sale of owned programming on DVDs and through digital distribution services, which is reported in other revenue. We generally recognize revenue from DVD sales, net of estimated returns and customer incentives, on the date that DVDs are delivered to and made available for sale by retailers. Payment terms generally include payment within 60 to 90 days from delivery to the retailer.

Theme Parks

Our Theme Parks segment generates revenue primarily from ticket sales and guest spending at our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Guest spending includes in-park spending on food, beverages and merchandise. We recognize revenue from theme park ticket sales when the tickets are used, generally within a year from the date of purchase. For annual passes, we generally recognize revenue on a straight-line basis over the period the pass is available to be used. We recognize revenue from guest spending at the point of sale.

Consolidated Balance Sheet

The following tables summarize our accounts receivable and other balances that are not separately presented in our consolidated balance sheet that relate to the recognition of revenue and collection of the related cash.

December 31 (in millions)		**2018**		2017
Receivables, gross	**$**	**7,392**	$	7,055
Less: Allowance for doubtful accounts		**99**		88
Receivables, net	**$**	**7,293**	$	6,967

December 31 (in millions)		**2018**		2017
Noncurrent receivables (included in other noncurrent assets, net)	**$**	**1,180**	$	1,093
Noncurrent deferred revenue (included in other noncurrent liabilities)	**$**	**481**	$	392

Note 4: Film and Television Costs

December 31 (in millions)	2018	2017
Film Costs:		
Released, less amortization	**$ 1,600**	$ 1,734
Completed, not released	**144**	50
In production and in development	**1,063**	1,149
	2,807	2,933
Television Costs:		
Released, less amortization	**2,161**	2,260
In production and in development	**953**	818
	3,114	3,078
Programming rights, less amortization	**2,694**	2,677
	8,615	8,688
Less: Current portion of programming rights	**1,323**	1,606
Film and television costs	**$ 7,292**	$ 7,082

Based on our current estimates of the total remaining revenue from all sources ("ultimate revenue"), in 2019 we expect to amortize approximately $1.6 billion of film and television costs associated with our original film and television productions that have been released, or are completed and have not been released. Through 2021, we expect to amortize approximately 83% of unamortized film and television costs for our released productions, excluding amounts allocated to acquired libraries.

As of December 31, 2018, acquired film and television libraries, which are included within the "released, less amortization" captions in the table above, had remaining unamortized costs of $396 million. These costs are generally amortized over a period not to exceed 20 years, and approximately 48% of these costs are expected to be amortized through 2021.

Capitalization of Film and Television Costs

We capitalize film and television production costs, including direct costs, production overhead, print costs, development costs and interest. We amortize capitalized film and television production costs, including acquired libraries, and accrue costs associated with participation and residual payments to programming and production expenses. We generally record the amortization and the accrued costs using the individual film forecast computation method, which amortizes the costs in the same ratio as the associated ultimate revenue. Estimates of ultimate revenue and total costs are based on anticipated release patterns, public acceptance and historical results for similar productions. Unamortized film and television production costs, including acquired libraries, are stated at the lower of unamortized cost or fair value. We do not capitalize costs related to the distribution of a film in movie theaters or the licensing or sale of a film or television production, which primarily include costs associated with marketing and distribution.

In determining the method of amortization and estimated life of an acquired film or television library, we generally use the method and the life that most closely follow the undiscounted cash flows over the estimated life of the asset.

When an event or a change in circumstance occurs that was known or knowable as of the balance sheet date and that indicates the fair value of a film is less than its unamortized costs, we determine the fair value of the film and record an impairment charge for the amount by which the unamortized capitalized costs exceed the film's fair value. The estimated fair value of a production is based on Level 3 inputs that primarily use an analysis of future expected cash flows. Adjustments to capitalized film production costs were not material in any of the periods presented.

We may enter into cofinancing arrangements with third parties to jointly finance or distribute certain of our film productions. Cofinancing arrangements can take various forms, but in most cases involve the grant of an economic interest in a film to an investor. The number of investors and the terms of these arrangements can vary, although investors generally assume the full risks and rewards for the portion of the film acquired in these arrangements. We account for the proceeds received from a third-party investor under these arrangements as a reduction to our capitalized film costs. Under these arrangements, the investor owns an undivided copyright interest in the film, and therefore in each period we record either a charge or a benefit to programming and production expenses to reflect the estimate of the third-party investor's interest in the profit or loss of the film. The estimate of the third-party investor's interest in the profit or loss of a film is determined using the ratio of actual revenue earned to date to the ultimate revenue expected to be recognized over the film's useful life.

We capitalize the costs of programming content that we license but do not own, including rights to multiyear, live-event sports programming, at the earlier of when payments are made for the programming or when the license period begins and the content is made available for use. We amortize capitalized programming costs as the associated programs are broadcast. We generally

amortize multiyear, live-event sports programming rights using the ratio of the current period revenue to the estimated ultimate revenue or under the terms of the contract.

Programming costs are recorded at the lower of unamortized cost or net realizable value on a program by program, package, channel or daypart basis. A daypart is an aggregation of programs broadcast during a particular time of day or programs of a similar type. Programming acquired by our Cable Networks segment is primarily tested on a channel basis for impairment, whereas programming acquired by our Broadcast Television segment is tested on a daypart basis. If we determine that the estimates of future cash flows are insufficient or if there is no plan to broadcast certain programming, we recognize an impairment charge to programming and production expenses.

Note 5: Income Taxes

Components of Income Tax Expense

Year ended December 31 (in millions)	2018	2017	2016
Foreign			
Current income tax expense	**$ 230**	$ 201	$ 38
Deferred income tax expense	**(31)**	(7)	96
Withholding tax expense	**163**	187	158
U.S. domestic tax expense	**(11)**	11	13
Income tax expense	**$ 351**	$ 392	$ 305

We are a limited liability company, and our company is disregarded for U.S. federal income tax purposes as an entity separate from NBCUniversal Holdings, a tax partnership. For U.S federal and state income tax purposes, our income is included in tax returns filed by Comcast and its subsidiaries, and therefore we are not expected to incur any significant current or deferred U.S. domestic income taxes. Our tax liability is comprised primarily of withholding tax on foreign licensing activity and income taxes on foreign earnings. As a result of our tax status, the deferred tax assets and liabilities included in our consolidated balance sheet at December 31, 2018 and 2017 were not material.

In jurisdictions in which we are subject to income taxes, we base our provision for income taxes on our current period income, changes in our deferred income tax assets and liabilities, income tax rates, changes in estimates of our uncertain tax positions, and tax planning opportunities available in the jurisdictions in which we operate. We recognize deferred tax assets and liabilities when there are temporary differences between the financial reporting basis and tax basis of our assets and liabilities and for the expected benefits of using net operating loss carryforwards. When a change in the tax rate or tax law has an impact on deferred taxes, we apply the change based on the years in which the temporary differences are expected to reverse. We record the change in our consolidated financial statements in the period of enactment.

We classify interest and penalties, if any, associated with our uncertain tax positions as a component of income tax expense.

Uncertain Tax Positions

We retain liabilities for uncertain tax positions where we are the tax filer of record. GE and Comcast have indemnified NBCUniversal Holdings and us with respect to our income tax obligations attributable to periods prior to Comcast's acquisition of NBCUniversal, including indemnification of uncertain tax positions for these periods. The liabilities for uncertain tax positions included in our consolidated balance sheet were not material as of December 31, 2018 and 2017.

Various domestic and foreign tax authorities are examining our tax returns through tax year 2017. The majority of the periods under examination relate to tax years 2010 and forward.

Note 6: Long-Term Debt

Long-Term Debt Outstanding

December 31 (in millions)	Weighted-Average Interest Rate as of December 31, 2018	2018	2017
Term loans [a]	1.30%	**$ 4,122**	$ 3,860
Senior notes with maturities of 5 years or less, at face value	4.39%	**5,000**	4,000
Senior notes with maturities between 5 and 10 years, at face value	—	**—**	1,000
Senior notes with maturities greater than 10 years, at face value	5.50%	**2,759**	2,759
Notes due 2049 to Comcast	4.00%	**610**	610
Other, including capital lease obligations	—	**427**	276
Debt issuance costs, premiums and discounts, net	—	**(36)**	(32)
Total debt	3.58%	**12,882**	12,473
Less: Current portion		**151**	198
Long-term debt		**$ 12,731**	$ 12,275

(a) Term loans consist of the following, with foreign currency denominated borrowings translated using the exchange rates as of each date:

- Universal Studios Japan: ¥390 billion and ¥435 billion as of December 31, 2018 and 2017, respectively
- Universal Beijing Resort: ¥4 billion RMB as of December 31, 2018 (see Note 7)

As of December 31, 2018 and 2017, our debt, excluding our revolving credit agreement with Comcast, had an estimated fair value of $13.2 billion and $13.5 billion, respectively. The estimated fair value of our publicly traded debt was primarily based on Level 1 inputs that use quoted market values for the debt. The estimated fair value of debt for which there are no quoted market prices was based on Level 2 inputs that use interest rates available to us for debt with similar terms and remaining maturities.

Principal Maturities of Debt

(in millions)	
2019	$ 153
2020	$ 2,280
2021	$ 2,365
2022	$ 2,922
2023	$ 1,012
Thereafter	$ 4,186

Cross-Guarantee Structure

We, Comcast and a 100% owned cable holding company subsidiary of Comcast (“CCCL Parent”) fully and unconditionally guarantee each other’s debt securities, including the $7.6 billion Comcast revolving credit facility due 2021 and the $27.0 billion of Comcast senior unsecured fixed and floating rate notes issued in connection with Comcast’s acquisition of Sky. As of December 31, 2018, outstanding debt securities of $86.4 billion of Comcast and CCCL Parent were subject to the cross-guarantee structure.

We do not, however, guarantee the obligations of NBCUniversal Enterprise with respect to its $3.0 billion aggregate principal amount of senior notes, its revolving credit facility, its commercial paper program, nor its $725 million liquidation preference of Series A cumulative preferred stock.

The Universal Studios Japan term loans are not subject to the cross-guarantee structure, however they have a separate guarantee from Comcast.

The Universal Beijing Resort term loans are not guaranteed.

Note 7: Significant Transactions

2018

Universal Beijing Resort

We entered into an agreement with a consortium of Chinese state-owned companies to build and operate a Universal theme park and resort in Beijing, China ("Universal Beijing Resort"). We own a 30% interest in Universal Beijing Resort and the construction is being funded through a combination of debt financing and equity contributions from the investors in accordance with their equity interests. The debt financing, which is being provided by a syndicate of Chinese financial institutions, contains certain financial and operating covenants and a maximum borrowing limit of ¥26.6 billion RMB (approximately $4 billion). The debt financing is secured by the assets of Universal Beijing Resort and the equity interests of the investors. As of December 31, 2018, Universal Beijing Resort had borrowed approximately $569 million under the financing agreement.

We have concluded that Universal Beijing Resort is a variable interest entity based on its governance structure, and we consolidate it because we have the power to direct activities that most significantly impact its economic performance. There are no liquidity arrangements, guarantees or other financial commitments between us and Universal Beijing Resort, and therefore our maximum risk of financial loss is our 30% interest. Universal Beijing Resort's results of operations are reported in our Theme Parks segment.

In March 2018, Universal Beijing Resort received initial equity investments through a combination of cash and noncash contributions from the investors. As of December 31, 2018, our consolidated balance sheet included assets, primarily including property and equipment, and liabilities of Universal Beijing Resort totaling $1.5 billion and $1.0 billion, respectively.

2017

FCC Spectrum Auction

On April 13, 2017, the Federal Communications Commission announced the results of its spectrum auction. In the auction, we relinquished our spectrum rights in the New York, Philadelphia and Chicago designated market areas ("DMAs") where NBC and Telemundo had overlapping spectrum. We received proceeds of $482 million in July 2017, which were recorded in other investing activities in our consolidated statement of cash flows. We recognized a pretax gain of $337 million in other operating gains in 2017. NBC and Telemundo stations share broadcast signals in these DMAs.

Universal Studios Japan

On April 6, 2017, we acquired the remaining interests in Universal Studios Japan that we did not already own for $2.3 billion. The acquisition was funded through borrowings under our revolving credit agreement with Comcast. Because we maintained control of Universal Studios Japan, the difference between the consideration transferred and the recorded value of the noncontrolling interests, as well as the related accumulated other comprehensive income impacts, were recorded to additional paid-in capital.

2016

DreamWorks Animation

On August 22, 2016, Comcast acquired all of the outstanding stock of DreamWorks Animation for $3.8 billion. DreamWorks Animation's stockholders received $41 in cash for each share of DreamWorks Animation common stock. DreamWorks Animation creates animated feature films, television series and specials, live entertainment, and related consumer products. In our allocation of purchase price for this acquisition, we recorded goodwill of $2.8 billion and film and television costs of $838 million.

Following the acquisition, Comcast converted DreamWorks Animation to a limited liability company and contributed its equity to us as a capital contribution. The net assets contributed to us excluded deferred income taxes and other tax-related items recorded by Comcast. The results of operations for DreamWorks Animation are reported in our Filmed Entertainment segment following the acquisition date and are presented as if the initial equity contribution occurred on the date of Comcast's acquisition.

Note 8: Recent Accounting Pronouncements

Revenue Recognition

In May 2014, the Financial Accounting Standards Board ("FASB") updated the accounting guidance related to revenue recognition. The updated accounting guidance provides a single, contract-based revenue recognition model to help improve financial reporting by providing clearer guidance on when an entity should recognize revenue and by reducing the number of standards to which an entity has to refer. The core principle of the new standard is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services.

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We adopted the updated guidance on January 1, 2018 on a full retrospective basis, which required us to reflect the impact of the updated guidance for all periods presented.

The adoption of the new standard did not have a material impact on our consolidated results of operations or financial position for any period presented. The updated guidance also requires additional disclosures regarding the nature, timing and uncertainty of our revenue transactions. See Note 3 for additional information.

The tables below present the effects on our consolidated statement of income and balance sheet for the prior year periods presented.

Consolidated Statement of Income

Year ended December 31, 2017 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Revenue	$ 32,997	$ (47)	$ 32,950
Total costs and expenses	$ 26,516	$ (43)	$ 26,473
Operating income	$ 6,481	$ (4)	$ 6,477
Net income attributable to NBCUniversal	$ 5,084	$ (4)	$ 5,080

Year ended December 31, 2016 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Revenue	$ 31,593	$ (195)	$ 31,398
Total costs and expenses	$ 26,171	$ (131)	$ 26,040
Operating income	$ 5,422	$ (64)	$ 5,358
Net income attributable to NBCUniversal	$ 4,235	$ (64)	$ 4,171

Consolidated Balance Sheet

December 31, 2017 (in millions)	Previously Reported	Effects of Adoption	As Adjusted
Total current assets	$ 11,673	$ 284	$ 11,957
Film and television costs	$ 7,071	$ 11	$ 7,082
Other noncurrent assets, net	$ 1,872	$ (68)	$ 1,804
Total assets	$ 71,073	$ 227	$ 71,300
Total current liabilities	$ 9,602	$ 330	$ 9,932
Other noncurrent liabilities	$ 4,109	$ 44	$ 4,153
Total equity	$ 43,188	$ (147)	$ 43,041
Total liabilities and equity	$ 71,073	$ 227	$ 71,300

The adoption of the updated guidance impacted the timing of recognition for some of our revenue contracts, primarily for content licensing agreements. As a result of the adoption of the updated guidance, when the term of an existing content licensing agreement is renewed or extended, revenue is not recognized until the date when the renewal or extension period begins. Under the prior guidance, revenue for the content licensing renewal period was recognized on the date that the renewal was agreed to contractually. This change resulted in delayed revenue recognition for content licensing renewals or extensions in our Cable Networks, Broadcast Television and Filmed Entertainment segments. This change also impacted the timing of the related amortization of our film and television costs and participations and residuals expenses. The adoption of the updated guidance did not have a material impact on the results of operations or financial position for the reportable segments.

Financial Assets and Financial Liabilities

In January 2016, the FASB updated the accounting guidance related to the recognition and measurement of financial assets and financial liabilities. The updated accounting guidance, among other things, requires that all nonconsolidated equity investments, except those accounted for under the equity method, be measured at fair value and the changes in fair value be recognized in net income. On January 1, 2018, we adopted the updated guidance prospectively along with a related clarifying update and as a result, we recorded a $232 million cumulative effect adjustment to member's capital and accumulated other comprehensive income (loss). See Note 9 for additional information.

Restricted Cash

In November 2016, the FASB updated the accounting guidance related to restricted cash. The new standard requires that the statement of cash flows present the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents, and a reconciliation of that total to amounts presented on the balance sheet. We

adopted the updated guidance on January 1, 2018 and as required applied the retrospective transition method. The adoption did not have a material impact for any period presented.

Leases

In February 2016, the FASB updated the accounting guidance related to leases. The updated accounting guidance requires lessees to recognize a right-of-use asset and a lease liability on the balance sheet for all leases with the exception of short-term leases. The asset and liability are initially measured based on the present value of committed lease payments. For a lessee, the recognition, measurement and presentation of expenses and cash flows arising from a lease do not significantly change from previous guidance. For a lessor, the accounting applied is also largely unchanged from previous guidance. We will adopt the updated accounting guidance in the first quarter of 2019 and prior periods will not be adjusted. We are currently in the process of determining the impact that the updated accounting will have on our consolidated financial statements. See Note 14 for a summary of our undiscounted minimum rental commitments under operating leases as of December 31, 2018.

Note 9: Investments

December 31 (in millions)		**2018**		2017
Equity method	**$**	**707**	$	690
Marketable equity securities		**162**		430
Nonmarketable equity securities		**811**		696
Total investments	**$**	**1,680**	$	1,816

Investment and Other Income (Loss), Net

Year ended December 31 (in millions)		**2018**		2017		2016
Equity in net income (losses) of investees, net	**$**	**(371)**	$	(201)	$	(99)
Realized and unrealized gains (losses) on equity securities, net		**(217)**		—		3
Other income (loss), net		**67**		57		120
Investment and other income (loss), net	**$**	**(521)**	$	(144)	$	24

Equity Method

We use the equity method to account for investments in which we have the ability to exercise significant influence over the investee's operating and financial policies or in which we hold a significant partnership or limited liability company interest. Equity method investments are recorded at cost and are adjusted to recognize (1) our proportionate share of the investee's net income or loss after the date of investment, (2) amortization of the recorded investment that exceeds our share of the book value of the investee's net assets, (3) additional contributions made and dividends received, and (4) impairments resulting from other-than-temporary declines in fair value. For some investments, we record our share of the investee's net income or loss one quarter in arrears due to the timing of our receipt of such information. Gains or losses on the sale of equity method investments are recorded to other income (loss), net. If an equity method investee were to issue additional securities that would change our proportionate share of the entity, we would recognize the change, if any, as a gain or loss to other income (loss), net.

Hulu

As of December 31, 2018 and 2017, our investment in Hulu was $248 million and $249 million, respectively. In 2018, 2017 and 2016, we made cash capital contributions totaling $454 million, $300 million and $50 million, respectively, to Hulu. In 2018, 2017 and 2016, we recognized our proportionate share of Hulu's losses of $454 million, $276 million and $168 million, respectively, in equity in net income (losses) of investees, net.

In August 2016, Time Warner Inc. acquired a 10% interest in Hulu, which diluted our interest in Hulu from 33% to 30%. For a period not to exceed 3 years, Time Warner may put its shares to Hulu or Hulu may call Time Warner's shares under certain limited circumstances arising from regulatory review. Given the contingent nature of the put and call options, we recorded a deferred gain of $159 million and a corresponding increase to our investment in Hulu as a result of the dilution. The deferred gain will be recognized in other income (loss), net if and when the options expire unexercised.

The Weather Channel

In March 2018, we sold our investment in The Weather Channel cable network and recognized a pretax gain of $64 million in other income (loss), net.

In January 2016, following a legal restructuring at The Weather Channel, we and the other investors sold the entity holding The Weather Channel's product and technology businesses to IBM. Following the close of the transaction, we continued to hold an

investment in The Weather Channel cable network through a new holding company. As a result of the sale of our investment, we recognized a pretax gain of $108 million in other income (loss), net.

Marketable Equity Securities

We classify publicly traded investments with readily determinable fair values that are not accounted for under the equity method as marketable equity securities. Marketable equity securities are recorded at cost and adjusted to fair value at each reporting period. The changes in fair value between measurement dates are recorded in realized and unrealized gains (losses) on equity securities, net. The fair values of our marketable equity securities are based on Level 1 inputs that use quoted market prices.

Snap

In March 2017, Comcast acquired an interest in Snap Inc. as part of its initial public offering. On March 31, 2017, Comcast contributed its investment in Snap to us as an equity contribution of $662 million, which was recorded in our consolidated statement of equity based on the fair value of the investment as of March 31, 2017. We have classified our investment as a marketable security. Snap is a camera company whose primary product is Snapchat, a camera app that was created to help people communicate through short videos and images. As of December 31, 2018 and 2017, we had an investment in Snap of $162 million and $430 million, respectively. In 2018, we recognized unrealized losses of $268 million in realized and unrealized gains (losses) on equity securities, net related to our investment in Snap. Prior to the updated accounting guidance, unrealized gains and losses related to our investment in Snap were recorded to accumulated other comprehensive income.

Nonmarketable Equity Securities

We classify investments without readily determinable fair values that are not accounted for under the equity method as nonmarketable equity securities. The accounting guidance requires nonmarketable equity securities to be recorded at cost and adjusted to fair value at each reporting period. However, the guidance allows for a measurement alternative, which is to record the investments at cost, less impairment, if any, and subsequently adjust for observable price changes of identical or similar investments of the same issuer. We apply this measurement alternative to our nonmarketable equity securities. When an observable event occurs, we estimate the fair values of our nonmarketable equity securities based on Level 2 inputs that are derived from observable price changes of similar securities adjusted for insignificant differences in rights and obligations. The changes in value are recorded in realized and unrealized gains (losses) on equity securities, net.

Impairment Testing of Investments

We review our investment portfolio, other than our marketable equity securities, each reporting period to determine whether there are identified events or circumstances that would indicate there is a decline in the fair value. For our nonpublic investments, if there are no identified events or circumstances that would have a significant adverse effect on the fair value of the investment, then the fair value is not estimated. For our equity method investments and held to maturity investments, if an investment is deemed to have experienced an other-than-temporary decline below its cost basis, we reduce the carrying amount of the investment to its quoted or estimated fair value, as applicable, and establish a new cost basis for the investment. For our nonmarketable equity securities, we record the impairment to realized and unrealized gains (losses) on equity securities, net. For our equity method investments and our held to maturity investments, we record the impairment to other income (loss), net.

Note 10: Property and Equipment

December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2018		**2018**		2017
Buildings and leasehold improvements	31 years	**$**	**8,877**	$	8,124
Furniture, fixtures and equipment	11 years		**5,501**		4,843
Construction in process	N/A		**2,676**		1,506
Land	N/A		**1,129**		1,039
Property and equipment, at cost			**18,183**		15,512
Less: Accumulated depreciation			**4,994**		4,166
Property and equipment, net		**$**	**13,189**	$	11,346

Property and equipment are stated at cost. We capitalize improvements that extend asset lives and expense repairs and maintenance costs as incurred. We record depreciation using the straight-line method over the asset's estimated useful life. For assets that are sold or retired, we remove the applicable cost and accumulated depreciation and, unless the gain or loss on disposition is presented separately, we recognize it as a component of depreciation expense.

We evaluate the recoverability of our property and equipment whenever events or substantive changes in circumstances indicate that the carrying amount may not be recoverable. The evaluation is based on the cash flows generated by the underlying asset groups, including estimated future operating results, trends or other determinants of fair value. If the total of the expected future undiscounted cash flows were less than the carrying amount of the asset group, we would recognize an impairment charge to the extent the carrying amount of the asset group exceeded its estimated fair value. Unless presented separately, the impairment charge is included as a component of depreciation expense.

Note 11: Goodwill and Intangible Assets

Goodwill

(in millions)	Cable Networks	Broadcast Television	Filmed Entertainment	Theme Parks	Total
Balance, December 31, 2016	$ 13,183	$ 806	$ 2,993	$ 6,341	$ 23,323
Acquisitions	241	—	32	—	273
Adjustments[(a)]	1	—	185	—	186
Foreign currency translation	2	—	2	203	207
Balance, December 31, 2017	13,427	806	3,212	6,544	23,989
Acquisitions	**—**	**36**	**—**	**—**	**36**
Dispositions	**—**	**—**	**(8)**	**—**	**(8)**
Adjustments	**(13)**	**1**	**(9)**	**—**	**(21)**
Foreign currency translation	**(7)**	**—**	**(11)**	**140**	**122**
Balance, December 31, 2018	**$ 13,407**	**$ 843**	**$ 3,184**	**$ 6,684**	**$ 24,118**

(a) Adjustments in 2017 primarily included the updated allocation of the purchase price for DreamWorks Animation.

Goodwill is calculated as the excess of the consideration transferred over the identifiable net assets acquired in a business combination and represents the future economic benefits expected to arise from anticipated synergies and intangible assets acquired that do not qualify for separate recognition, including assembled workforce, noncontractual relationships and other agreements. We assess the recoverability of our goodwill annually, or more frequently whenever events or substantive changes in circumstances indicate that the carrying amount of a reporting unit may exceed its fair value. We test goodwill for impairment at the reporting unit level. To determine our reporting units, we evaluate the components one level below the segment level and we aggregate the components if they have similar economic characteristics. As a result of this assessment, our reporting units are generally the same as our four reportable segments. We evaluate the determination of our reporting units used to test for impairment periodically or whenever events or substantive changes in circumstances occur. The assessment of recoverability may first consider qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. A quantitative assessment is performed if the qualitative assessment results in a more-likely-than-not determination or if a qualitative assessment is not performed. The quantitative assessment considers whether the carrying amount of a reporting unit exceeds its fair value, in which case an impairment charge is recorded to the extent the reporting unit's carrying value exceeds its fair value. Unless presented separately, the impairment charge is included as a component of amortization expense. We did not recognize any impairment charges in any of the periods presented.

Intangible Assets

		2018		2017	
December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2018	**Gross Carrying Amount**	**Accumulated Amortization**	Gross Carrying Amount	Accumulated Amortization
Finite-Lived Intangible Assets:					
Customer relationships	19 years	**$ 13,269**	**$ (6,283)**	$ 13,301	$ (5,643)
Software	5 years	**1,779**	**(932)**	1,516	(737)
Other	19 years	**3,619**	**(1,375)**	2,580	(1,205)
Indefinite-Lived Intangible Assets:					
Trade names	N/A	**2,981**		2,981	
FCC licenses	N/A	**608**		513	
Total		**$ 22,256**	**$ (8,590)**	$ 20,891	$ (7,585)

Indefinite-Lived Intangible Assets

Indefinite-lived intangible assets consist of trade names and FCC licenses. We assess the recoverability of our indefinite-lived intangible assets annually, or more frequently whenever events or substantive changes in circumstances indicate that the assets might be impaired. We evaluate the unit of account used to test for impairment of our indefinite-lived intangible assets periodically or whenever events or substantive changes in circumstances occur to ensure impairment testing is performed at an appropriate level. The assessment of recoverability may first consider qualitative factors to determine whether it is more likely than not that the fair value of an indefinite-lived intangible asset is less than its carrying amount. A quantitative assessment is performed if the qualitative assessment results in a more-likely-than-not determination or if a qualitative assessment is not performed. When performing a quantitative assessment, we estimate the fair value of our indefinite-lived intangible assets primarily based on a discounted cash flow analysis that involves significant judgment. When analyzing the fair values indicated under the discounted cash flow models, we also consider multiples of Adjusted EBITDA generated by the underlying assets, current market transactions and profitability information. If the fair value of our indefinite-lived intangible assets were less than the carrying amount, we would recognize an impairment charge for the difference between the estimated fair value and the carrying value of the assets. Unless presented separately, the impairment charge is included as a component of amortization expense. We did not recognize any material impairment charges in any of the periods presented.

Finite-Lived Intangible Assets

Estimated Amortization Expense of Finite-Lived Intangible Assets

(in millions)		
2019	$	1,059
2020	$	1,039
2021	$	936
2022	$	861
2023	$	839

Finite-lived intangible assets are subject to amortization and consist primarily of customer relationships acquired in business combinations, software, and intellectual property rights. Our finite-lived intangible assets are amortized primarily on a straight-line basis over their estimated useful life or the term of the associated agreement.

We capitalize direct development costs associated with internal-use software, including external direct costs of material and services and payroll costs for employees devoting time to these software projects. We also capitalize costs associated with the purchase of software licenses. We generally amortize them on a straight-line basis over a period not to exceed five years. We expense maintenance and training costs, as well as costs incurred during the preliminary stage of a project, as they are incurred. We capitalize initial operating system software costs and amortize them over the life of the associated hardware.

We evaluate the recoverability of our finite-lived intangible assets whenever events or substantive changes in circumstances indicate that the carrying amount may not be recoverable. The evaluation is based on the cash flows generated by the underlying asset groups, including estimated future operating results, trends or other determinants of fair value. If the total of the expected future undiscounted cash flows were less than the carrying amount of the asset group, we would recognize an impairment charge to the extent the carrying amount of the asset group exceeded its estimated fair value. Unless presented separately, the impairment charge is included as a component of amortization expense.

Note 12: Employee Benefit Plans

Deferred Compensation Plans

Year ended December 31 (in millions)		**2018**		2017		2016
Benefit obligation	**$**	**719**	$	621	$	494
Interest expense	**$**	**58**	$	64	$	48

Certain members of management participate in Comcast's unfunded, nonqualified deferred compensation plan. The amount of compensation deferred by each participant is based on participant elections. Participant accounts are credited with income primarily based on a fixed annual rate.

Additionally, we maintain unfunded, nonqualified deferred compensation plans for certain members of management. The amount of compensation deferred by each participant is based on participant elections. Participants designate one or more valuation funds, independently established funds or indices that are used to determine the amount of investment gain or loss in the participant's account.

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Deferred compensation plan participants are eligible to receive distributions from their account based on elected deferral periods that are consistent with the plans and applicable tax law.

Postretirement Benefit Plan

Year ended December 31 (in millions)		2018		2017
Benefit obligation	**$**	**47**	$	51
Amounts in accumulated other comprehensive income not yet recognized in benefits expense	**$**	**(163)**	$	(177)

We provide postretirement benefits to eligible employees through a retiree health and welfare benefits plan. The plan provides credit to employees for length of service provided before Comcast's acquisition of NBCUniversal.

The plan provides eligible employees who retire from NBCUniversal with an annual stipend for reimbursement of certain eligible healthcare costs. The amount of the stipend for an eligible retiree is fixed at a predetermined amount based on the retiree's years of service and whether the retiree is eligible for Medicare. In 2017, the plan was amended primarily to reduce the benefits of active employees who retire after December 31, 2017.

The plan is unfunded and substantially all of our postretirement benefit obligations are recorded to noncurrent liabilities. The expense we recognize for the plan is determined using certain assumptions, including the discount rate. The benefits expense we recognized for the plan was not material in any of the periods presented.

Pension Plans

We sponsor various nonqualified defined benefit pension plans for domestic employees. Since the future benefits have been frozen since the beginning of 2013, we did not recognize service costs related to our pension plans in any of the periods presented. The benefits expense we recognized for our defined benefit plans was not material for any period presented. In addition to the defined benefit plans we sponsor, we are also obligated to reimburse The General Electric Company ("GE") for future benefit payments to those participants who were vested in the supplemental pension plan sponsored by GE at the time of Comcast's acquisition of NBCUniversal. These pension plans are currently unfunded and we recorded a benefit obligation of $312 million and $338 million as of December 31, 2018 and 2017, respectively, which consists primarily of our obligations to reimburse GE.

Retirement Investment Plans

We sponsor several defined contribution retirement plans, including 401(k) plans, that allow eligible employees to contribute a portion of their compensation through payroll deductions in accordance with specified plan guidelines. We make contributions to the plans that include matching a percentage of the employees' contributions up to certain limits. In 2018, 2017 and 2016, expenses related to these plans totaled $213 million, $201 million and $185 million, respectively.

Multiemployer Benefit Plans

We participate in various multiemployer benefit plans, including pension and postretirement benefit plans, that cover some of our employees and temporary employees who are represented by labor unions. We also participate in other multiemployer benefit plans that provide health and welfare and retirement savings benefits to active and retired participants. We make periodic contributions to these plans in accordance with the terms of applicable collective bargaining agreements and laws but do not sponsor or administer these plans. We do not participate in any multiemployer benefit plans for which we consider our contributions to be individually significant.

In 2018, 2017 and 2016, the total contributions we made to multiemployer pension plans were $102 million, $97 million and $84 million, respectively. In 2018, 2017 and 2016, the total contributions we made to multiemployer postretirement and other benefit plans were $183 million, $152 million and $136 million, respectively.

If we cease to be obligated to make contributions or were to otherwise withdraw from participation in any of these plans, applicable law would require us to fund our allocable share of the unfunded vested benefits, which is known as a withdrawal liability. In addition, actions taken by other participating employers may lead to adverse changes in the financial condition of one of these plans, which could result in an increase in our withdrawal liability.

Severance Benefits

We provide severance benefits to certain former employees. A liability is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated. In 2018, 2017 and 2016, we recorded severance costs of $146 million, $108 million and $165 million, respectively. Severance costs in 2016 included $61 million of severance costs associated with the acquisition of DreamWorks Animation.

Note 13: Supplemental Financial Information

Cash Payments for Interest and Income Taxes

Year ended December 31 (in millions)		2018		2017		2016
Interest	$	408	$	517	$	548
Income taxes	$	430	$	282	$	208

Noncash Investing and Financing Activities

During 2018:

- we acquired $1.4 billion of property and equipment and intangible assets that were accrued but unpaid
- we received noncash contributions from noncontrolling interests totaling $391 million related to Universal Beijing Resort (see Note 7)

During 2017:

- we acquired $325 million of property and equipment and intangible assets that were accrued but unpaid
- Comcast contributed its investment in Snap to us at its fair value, which was a noncash transaction (see Note 9)
- we and Comcast completed a senior notes exchange in the fourth quarter of 2017 (see Note 15)

During 2016:

- we acquired $189 million of property and equipment and intangible assets that were accrued but unpaid
- Comcast contributed the net assets of DreamWorks Animation to us, which was primarily a noncash transaction (see Note 7)

Cash, Cash Equivalents and Restricted Cash

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the consolidated balance sheet to the total of the amounts reported in our consolidated statement of cash flows.

December 31 (in millions)		2018		2017
Cash and cash equivalents	$	1,444	$	2,347
Restricted cash included in other noncurrent assets, net		20		30
Cash, cash equivalents and restricted cash, end of year	$	1,464	$	2,377

Accumulated Other Comprehensive Income (Loss)

December 31 (in millions)		2018		2017
Unrealized gains (losses) on marketable securities	$	—	$	(233)
Deferred gains (losses) on cash flow hedges		12		10
Unrecognized gains (losses) on employee benefit obligations		140		126
Cumulative translation adjustments		102		77
Accumulated other comprehensive income (loss)	$	254	$	(20)

Note 14: Commitments and Contingencies

Commitments

We enter into long-term commitments with third parties in the ordinary course of our business, including commitments to acquire film and television programming, obligations under various creative talent agreements, and various other television-related commitments. Some of our employees, including writers, directors, actors, technical and production personnel, and others, as well as some of our on-air and creative talent, are covered by collective bargaining agreements or works councils. As of December 31, 2018, the total number of employees covered by collective bargaining agreements was 10,000 full-time equivalent employees. Approximately 46% of these full-time equivalent employees were covered by collective bargaining agreements that have expired or are scheduled to expire during 2019.

The table below summarizes our minimum annual programming and talent commitments and our minimum annual rental commitments under operating leases for office space and equipment. Programming and talent commitments include acquired film

and television programming, including broadcast rights to sporting events, such as the Olympics, and other programming commitments, as well as various contracts with creative talent.

As of December 31, 2018 (in millions)	Programming and Talent Commitments	Operating Leases
2019	$ 5,371	$ 248
2020	$ 5,524	$ 232
2021	$ 3,922	$ 199
2022	$ 4,314	$ 168
2023	$ 2,181	$ 144
Thereafter	$ 16,549	$ 1,380

The table below presents our rental expense charged to operations.

Year ended December 31 (in millions)	**2018**	2017	2016
Rental expense	**$ 286**	$ 274	$ 259

Contractual Obligation

We are party to a contractual obligation that involves an interest held by a third party in the revenue of certain theme parks. The arrangement provides the counterparty with the right to periodic payments associated with current period revenue which are recorded as an operating expense, and beginning in June 2017, the option to require NBCUniversal to purchase the interest for cash in an amount based on a contractual formula. The contractual formula is based on an average of specified historical theme park revenue at the time of exercise, which amount could be significantly higher than our carrying value. As of December 31, 2018, our carrying value was $1.1 billion, and the estimated value of the contractual obligation was $1.6 billion based on inputs to the contractual formula as of that date.

Note 15: Related Party Transactions

In the ordinary course of our business, we enter into transactions with Comcast.

We generate revenue from Comcast primarily from the distribution of our cable network programming, the fees received under retransmission consent agreements in our Broadcast Television segment and, to a lesser extent, the sale of advertising and our owned programming, and we incur expenses primarily related to advertising and various support services provided by Comcast to us.

In September 2016, as part of the Comcast cash management process, we and Comcast amended and restated our revolving credit agreements to increase the amount that we can borrow from Comcast and that Comcast can borrow from us from $3 billion to $5 billion and to extend the maturity date to 2026. Depending on the receivable or payable position, amounts owed by us to Comcast or to us by Comcast under the revolving credit agreements are presented under the captions “note payable to Comcast” and “note receivable from Comcast,” respectively, in our consolidated balance sheet and are presented as current since the amounts include daily borrowings and repayments throughout the year based on our working capital needs. The revolving credit agreements bear interest at floating rates equal to the interest rate calculation under Comcast’s revolving credit facility. The interest rate on Comcast’s revolving credit facility consists of a base rate plus a borrowing margin that is determined based on Comcast’s credit rating. As of December 31, 2018, the borrowing margin for London Interbank Offered Rate-based borrowings was 1.00%.

Comcast is also the counterparty to one of our contractual obligations. As of both December 31, 2018 and 2017, the carrying value of the liability associated with this contractual obligation was $383 million.

Senior Notes Exchange

In October 2017, we and Comcast completed a debt exchange transaction. Comcast issued $2.0 billion aggregate principal amount of new 3.97% senior notes due 2047, $2.0 billion aggregate principal amount of new 4.00% senior notes due 2049, and $1.5 billion aggregate principal amount of new 4.05% senior notes due 2052 in exchange for $3.9 billion aggregate principal amount of certain series of outstanding senior notes issued by Comcast and us, including $442 million of our 6.40% senior notes due 2040. The new notes are fully and unconditionally guaranteed by us and CCCL Parent. In connection with the exchange transaction, we issued $610 million of 4.00% notes due 2049 to Comcast. The debt exchange transaction was accounted for as a debt extinguishment, and therefore we recorded a charge of $157 million to interest expense upon retirement of the old notes.

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The following tables present transactions with Comcast and its consolidated subsidiaries that are included in our consolidated financial statements.

Consolidated Statement of Income

Year ended December 31 (in millions)	2018	2017	2016
Transactions with Comcast and Consolidated Subsidiaries			
Revenue	**$ 2,156**	$ 1,837	$ 1,742
Total costs and expenses	**$ (245)**	$ (214)	$ (220)
Interest expense and investment and other income (loss), net	**$ (54)**	$ (250)	$ (69)

Consolidated Balance Sheet

December 31 (in millions)	2018	2017
Transactions with Comcast and Consolidated Subsidiaries		
Receivables, net	**$ 464**	$ 326
Note receivable from Comcast	**$ 2,054**	—
Accounts payable and accrued expenses related to trade creditors	**$ 78**	$ 54
Accrued expenses and other current liabilities	**$ 32**	$ 50
Note payable to Comcast	**$ 54**	$ 1,831
Long-term debt	**$ 701**	$ 610
Other noncurrent liabilities	**$ 410**	$ 389

Distributions to NBCUniversal Holdings

In addition to the transaction amounts presented in the table above, we make distributions to NBCUniversal Holdings on a periodic basis to enable its owners to meet their obligations to pay taxes on taxable income generated by our businesses. We also make quarterly distributions to NBCUniversal Holdings to enable it to make its required quarterly payments to NBCUniversal Enterprise at an initial annual rate of 8.25% on the $9.4 billion aggregate liquidation preference of its preferred units. On March 1, 2023, and thereafter on every fifth anniversary of such date, this rate will reset to 7.44% plus the yield on actively traded United States Treasury securities having a 5 year maturity. These distributions are presented under the caption “distributions to member” in our consolidated statement of cash flows.

Share-Based Compensation

Comcast maintains share-based compensation plans that consist primarily of awards of restricted share units (“RSUs”) and stock options to certain employees and directors as part of its approach to long-term incentive compensation. Additionally, through its employee stock purchase plans, employees are able to purchase shares of Comcast common stock at a discount through payroll deductions. The cost associated with Comcast’s share-based compensation is based on an award’s estimated fair value at the date of grant and is recognized over the period in which any related services are provided. RSUs are valued based on the closing price of Comcast common stock on the date of grant and are discounted for the lack of dividends, if any, during the vesting period. Stock options are valued using the Black-Scholes option pricing model. Certain of our employees participate in these plans and the expense associated with their participation is settled in cash with Comcast. In 2018, 2017 and 2016, we recognized share-based compensation expense of $151 million, $133 million and $99 million, respectively. As of December 31, 2018, we had unrecognized pretax compensation expense of $270 million related to nonvested Comcast RSUs and unrecognized pretax compensation expense of $23 million related to nonvested Comcast stock options that will be recognized over a weighted-average period of approximately 1.6 years and 1.0 years, respectively.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Comcast Corporation
Philadelphia, Pennsylvania

Opinion on the Consolidated Financial Statement Schedule

We have audited the consolidated financial statements of Comcast Corporation and subsidiaries (the "Company") as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, and the Company's internal control over financial reporting as of December 31, 2018, and have issued our report thereon dated January 31, 2019; such consolidated financial statements and report are included elsewhere in this Form 10-K. Our audits also included the consolidated financial statement schedule of the Company listed in the Index at Item 15. This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statement schedule based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ Deloitte & Touche LLP
Philadelphia, Pennsylvania
January 31, 2019

Report of Independent Registered Public Accounting Firm

To the Member of NBCUniversal Media, LLC
New York, New York

Opinion on the Consolidated Financial Statement Schedule

We have audited the consolidated financial statements of NBCUniversal Media, LLC and subsidiaries (the "Company") as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018, and have issued our report thereon dated January 31, 2019; such consolidated financial statements and report are included elsewhere in this Form 10-K. Our audits also included the consolidated financial statement schedule of the Company listed in the Index at Item 15. This consolidated financial statement schedule is the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statement schedule based on our audits. In our opinion, such consolidated financial statement schedule, when considered in relation to the consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ Deloitte & Touche LLP
New York, New York
January 31, 2019

Comcast Corporation and Subsidiaries
Schedule II – Valuation and Qualifying Accounts
Year ended December 31, 2018, 2017 and 2016

Year ended December 31 (in millions)	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Deductions from Reserves	Balance at End of Year
2018				
Allowance for doubtful accounts	$ 288	$ 616	$ 552	$ 352
Valuation allowance on deferred tax assets	377	367	112	632
2017				
Allowance for doubtful accounts	$ 250	$ 554	$ 516	$ 288
Valuation allowance on deferred tax assets	266	111	—	377
2016				
Allowance for doubtful accounts	$ 226	$ 558	$ 534	$ 250
Valuation allowance on deferred tax assets	342	23	99	266

NBCUniversal Media, LLC
Schedule II – Valuation and Qualifying Accounts
Year ended December 31, 2018, 2017 and 2016

Year ended December 31 (in millions)	Balance at Beginning of Year	Additions Charged to Costs and Expenses	Deductions from Reserves	Balance at End of Year
2018				
Allowance for doubtful accounts	$ 88	$ 32	$ 21	$ 99
Valuation allowance on deferred tax assets	87	13	27	73
2017				
Allowance for doubtful accounts	$ 84	$ 23	$ 19	$ 88
Valuation allowance on deferred tax assets	72	15	—	87
2016				
Allowance for doubtful accounts	$ 69	$ 26	$ 11	$ 84
Valuation allowance on deferred tax assets	71	23	22	72

AMENDED AND RESTATED BY-LAWS

OF

COMCAST CORPORATION

*** * * * ***

January 30, 2019

*** * * * ***

ARTICLE 1

Offices

Section 1.01. *Registered Office*. The registered office of the Comcast Corporation (the "**Corporation**") shall be located within the Commonwealth of Pennsylvania at such place as the Board of Directors (hereinafter referred to as the "**Board of Directors**" or the "**Board**") shall determine from time to time.

Section 1.02. *Other Offices*. The Corporation may also have offices at such other places, within or without the Commonwealth of Pennsylvania, as the Board of Directors may determine from time to time.

ARTICLE 2

Meetings of Shareholders

Section 2.01. *Place of Meetings of Shareholders*. Meetings of shareholders may be held at such geographic locations, within or without the Commonwealth of Pennsylvania, as may be fixed from time to time by the Board of Directors. If no such geographic location is so fixed by the Board of Directors or the Board of Directors does not determine to hold a meeting by means of electronic technology (as provided in the next sentence) rather than at a geographic location, meetings of the shareholders shall be held at the executive office of the Corporation. If a meeting of the shareholders is held by means of the Internet or other electronic communications technology in a fashion pursuant to which the shareholders have the opportunity to read or hear the proceedings substantially concurrently with their occurrence, vote on matters submitted to the shareholders, pose questions to the Directors, make appropriate motions and comment on the business of the meeting, the meeting need not be held at a particular geographic location.

Section 2.02. *Annual Meetings of Shareholders*.

(a) Time. Subject to Article SIXTH of the Articles of Incorporation, a meeting of the shareholders of the Corporation shall be held in each calendar year, on such date and at such time as the Board of Directors may determine, or if the Board of Directors fails to set a date and time, on the second Thursday of June at 9:00 o'clock a.m., if not a holiday on which national banks are or may elect to be closed ("**Holiday**"), and if such day is a Holiday, then such meeting shall be held on the next business day at such time.

(b) Election of Directors. At each annual meeting, Directors shall be elected to serve for the ensuing year and until their successors shall have been selected and qualified or until their earlier death, resignation or removal.

Section 2.03. *Special Meetings of Shareholders*. Special meetings of the shareholders may be called at any time by the Board of Directors. Special meetings of the shareholders may not be called by shareholders. Upon the written instruction of the Board of Directors, which instruction specifies the general nature of the business to be transacted at such meeting as well as the date, time and place of such meeting, it shall be the duty of the Secretary to give due notice thereof as required by Section 2.04 hereof.

Section 2.04. *Notices of Meetings of Shareholders*. Notice complying with Article 6 of these By-Laws of every meeting of the shareholders shall be given to each shareholder of record entitled to vote at the meeting at least: (i) ten days prior to the day named for a meeting that will consider a transaction under Chapter 3 of Title 15 of the Pennsylvania Consolidated Statutes or Chapter 19 of the Pennsylvania Business Corporation Law of 1988, as amended (the "**Pennsylvania BCL**"), or (ii) five days prior to the day named for the meeting in any other case.

Section 2.05. *Quorum of and Action by Shareholders*.

(a) General Rule. A meeting of shareholders duly called shall not be organized for the transaction of business unless a quorum is present as to at least one of the matters to be considered. Except as provided in subsections (c), (d) and (e) of this Section 2.05, the presence of shareholders entitled to cast at least a majority of the votes that all shareholders are entitled to cast on a particular matter to be acted upon at the meeting shall constitute a quorum for the purpose of consideration of and action on the matter. To the extent that a quorum is present with respect to consideration of and action on a particular matter or matters but a quorum is not present as to another matter or matters, consideration of and action on the matter or matters for which a quorum is present may occur, and, after such consideration and action, the meeting may be adjourned for purposes of the consideration of and action on the matter or matters for which a quorum is not present.

(b) Action by Shareholders. Except as otherwise specifically provided by law, all matters coming before a meeting of shareholders shall be determined by a vote of shares. Except as otherwise provided by a resolution adopted by the Board of Directors, by the Articles of Incorporation, by the Pennsylvania BCL or by these By-Laws, whenever any corporate action is to be taken by vote of the shareholders of the Corporation at a duly organized meeting of shareholders, it shall be authorized by a majority of the votes cast at the meeting by the holders of shares entitled to vote with respect to such matter; *provided* that in no event may the required shareholder vote be reduced below that provided above.

(c) Continuing Quorum. The shareholders present at a duly organized meeting can continue to do business until adjournment, notwithstanding the withdrawal of enough shareholders to leave less than a quorum.

(d) Election of Directors at Adjourned Meetings. Those shareholders entitled to vote who attend a meeting at which Directors are to be elected that has been previously adjourned for lack of a quorum with respect thereto, although less than a quorum as fixed in subsection (a), shall nevertheless constitute a quorum for the purpose of electing Directors at such reconvened meeting.

(e) Conduct of Other Business at Adjourned Meetings. Those shareholders entitled to vote who attend a meeting at which a matter other than the election of directors is to be acted upon, that has been previously adjourned for one or more periods aggregating at least 15 days because of an absence of a quorum with respect thereto, although less than a quorum as fixed in subsection (a), shall nevertheless

constitute a quorum for the purpose of acting upon such matter if the notice states that those shareholders who attend the adjourned meeting shall nevertheless constitute a quorum for the purpose of acting upon such matter.

Section 2.06. *Adjournments*.

(a) General Rule. Adjournments of any regular or special meeting of shareholders, including one at which Directors are to be elected, may be taken for such periods as the shareholders present and entitled to vote shall direct.

(b) Lack of Quorum. Without limiting the generality of Section 2.06(c), if a meeting cannot be organized because a quorum has not attended, those shareholders present may, except as otherwise provided in the Pennsylvania BCL, adjourn the meeting to such time and place as they may determine. To the extent, as set forth in Section 2.05(a), that a quorum was not present with respect to consideration of and action on a particular matter at a duly called and organized meeting, consideration of and action on such matter may be adjourned to such date, time and place as those shareholders present may determine, and the balance of the matters to be considered at such meeting for which a quorum was present may be considered and acted upon at the initial meeting.

(c) Notice of an Adjourned Meeting. When a meeting of shareholders is adjourned, it shall not be necessary to give any notice of the adjourned meeting or of the business to be transacted at an adjourned meeting, other than by announcement at the meeting at which the adjournment is taken, unless the Board fixes a new record date for the adjourned meeting or the Pennsylvania BCL requires notice of the business to be transacted and such notice has not been previously given.

Section 2.07. *Voting List, Voting and Proxies*.

(a) Voting List. The officer or agent having charge of the transfer books for shares of the Corporation shall make a complete list of the shareholders entitled to vote at any meeting of shareholders, arranged in alphabetical order, with the address of and the number of shares held by each. The list shall be produced and kept open at the date, time and place of the meeting and shall be subject to the inspection of any shareholder during the whole time of the meeting for the purposes thereof except that the Corporation shall not be required to produce the list at a meeting of shareholders for which a judge or judges of election are appointed but instead shall furnish the list to the judge or judges of election.

(b) Method of Voting. At the discretion of the presiding officer of a meeting of shareholders, (i) in elections for directors voting need not be by ballot but may be taken by voice, show of hands or such other method determined by the presiding officer unless it is required by vote of the shareholders, before the vote begins, that the vote be taken by ballot and (ii) with respect to any other action to be taken by vote at the meeting, as set forth in Section 2.05(b), voting need not be by ballot but may be taken by voice, show of hands or such other method determined by the presiding officer to the fullest extent permitted by applicable law (including the Pennsylvania BCL).

(c) Proxies. At all meetings of shareholders, shareholders entitled to vote may attend and vote either in person or by proxy. Every proxy shall be executed or authenticated by the shareholder or by such shareholder's duly authorized attorney-in-fact and shall be filed with, or transmitted to, the Secretary or his or her designated agent. A shareholder or such shareholder's duly authorized attorney-in-fact may execute or authenticate in writing or transmit an electronic message authorizing another person to act for such shareholder by proxy. A proxy, unless coupled with an interest (as defined in Section 1759(d) of the

Pennsylvania BCL), shall be revocable at will, notwithstanding any other agreement or any provision in the proxy to the contrary, but the revocation of a proxy shall not be effective until notice thereof has been given to the Secretary or his or her designated agent in writing or by electronic transmission. An unrevoked proxy shall not be valid after three years from the date of its execution unless a longer time is expressly provided therein. A proxy shall not be revoked by the death or incapacity of the maker unless, before the vote is counted or the authority is exercised, notice of the death or incapacity is given to the Secretary or his or her designated agent in writing or by electronic transmission.

(d) Judges of Election. In advance of any meeting of shareholders of the Corporation, the Board of Directors may appoint one or three Judges of Election, who need not be shareholders and who will have such duties as provided in Section 1765(a)(3) of the Pennsylvania BCL, to act at the meeting or any adjournment thereof. If one or three Judges of Election are not so appointed, the presiding officer of the meeting may, and on the request of any shareholder shall, appoint one or three Judges of Election at the meeting. In case any person appointed as a Judge of Election fails to appear or refuses to act, the vacancy may be filled by appointment made by the Board of Directors in advance of the convening of the meeting or at the meeting by the presiding officer. A person who is a candidate for office to be filled at the meeting shall not act as a Judge of Election. Unless the Pennsylvania BCL permits otherwise, this Section 2.07(d) may be modified only by a By-Law amendment adopted by the shareholders.

(e) No Action by Written Consent in Lieu of a Meeting. Subject to Article NINTH of the Articles of Incorporation, the shareholders shall not be permitted to act by written consent in lieu of a meeting.

Section 2.08. *Participation in Meetings by Electronic Means*. The Board of Directors may permit, by resolution with respect to a particular meeting of the shareholders, or the presiding officer of such meeting may permit, one or more persons to participate in that meeting, count for the purposes of determining a quorum and exercise all rights and privileges to which such person might be entitled were such person personally in attendance, including the right to vote, by means of conference telephone or other electronic means, including, without limitation, the Internet. Unless the Board of Directors so permits by resolution, or the presiding officer of such meeting so permits, no person may participate in a meeting of the shareholders by means of conference telephone or other electronic means.

Section 2.09. *Business at Meetings of Shareholders*. Except as otherwise provided by law (including but not limited to Rule 14a-8 promulgated under the Securities Exchange Act of 1934, as amended, or any successor provision thereto (the "**Exchange Act**")) or in these By-Laws, the business which shall be conducted at any meeting of the shareholders shall (a) have been specified in the written notice of the meeting (or any supplement thereto) given by the Corporation, or (b) be brought before the meeting at the direction of the Board of Directors, or (c) be brought before the meeting by the presiding officer of the meeting unless a majority of the Directors then in office object to such business being conducted at the meeting, or (d) in the case of any matters intended to be brought by a shareholder before an annual meeting of shareholders for specific action at such meeting, have been specified in a written notice given to the Secretary, by or on behalf of any shareholder who shall have been a shareholder of record on the record date for such meeting and who shall continue to be entitled to vote thereat (the "**Shareholder Notice**"), in accordance with all of the following requirements:

(i) Each Shareholder Notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation (A) in the case of an annual meeting that is called for a date that is within 30 days before or after the anniversary date of the immediately preceding annual meeting of shareholders, not less than 90 days nor more than 120 days prior to such

anniversary date, and (B) in the case of an annual meeting that is called for a date that is not within 30 days before or after the anniversary date of the immediately preceding annual meeting, not later than the close of business on the tenth day following the day on which notice of the date of the meeting was mailed or public disclosure of the date of the meeting was made, whichever occurs first; and

(ii) Each such Shareholder Notice must set forth: (A) the name and address of the shareholder who intends to bring the business before the meeting; (B) the general nature of the business which such shareholder seeks to bring before the meeting and the text of the resolution or resolutions which the proposing shareholder proposes that the shareholders adopt; and (C) a representation that the shareholder is a holder of record of the stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to bring the business specified in the notice before the meeting. The presiding officer of the meeting may, in his or her sole discretion, refuse to acknowledge any business proposed by a shareholder not made in compliance with the foregoing procedure.

Section 2.10 *Conduct Of Meetings Of Shareholders*.

(a) Presiding Officer. There shall be a presiding officer at every meeting of the shareholders. Subject to Article SIXTH of the Articles of Incorporation, the presiding officer shall be appointed by the Board of Directors or in the manner authorized by the Board of Directors; *provided* that if a presiding officer is not designated by the Board of Directors or in the manner authorized by the Board of Directors, the Chairman of the Board shall be the presiding officer.

(b) Authority of Presiding Officer. Except as prescribed by the Board of Directors, the presiding officer shall determine the order of business and shall have the authority to establish rules for the conduct of the meeting of the shareholders.

(c) Procedural Standard. Any action by the presiding officer in adopting rules for, and in conducting, a meeting of the shareholders shall be fair to the shareholders. The conduct of the meeting need not follow *Robert's Rules of Order* or any other published rules for the conduct of a meeting.

(d) Closing of the Polls. The presiding officer shall announce at the meeting of the shareholders when the polls close for each matter voted upon. If no announcement is made, the polls shall be deemed to have closed upon the final adjournment of the meeting. After the polls close, no ballots, proxies or votes, nor any revocations or changes thereto, may be accepted.

ARTICLE 3

Section 3.01. *Board of Directors*

(a) General Powers. Except as otherwise provided by law, the Articles of Incorporation or these By-Laws, all powers of the Corporation shall be exercised by or under the authority of, and the business and affairs of the Corporation shall be managed under the direction of, the Board of Directors.

(b) Number. The number of Directors shall be as determined by the Board of Directors from time to time.

(c) Vacancies. Each Director shall hold office until the expiration of the term for which such person was selected and until such person's successor has been selected and qualified or until such person's earlier death, resignation or removal. Subject to Article SIXTH of the Articles of Incorporation,

any vacancies on the Board of Directors, including vacancies resulting from an increase in the number of Directors, may be filled by a majority vote of the remaining members of the Board of Directors, though less than a quorum, or by a sole remaining Director, or, if there are no remaining Directors, by the shareholders, and each person so selected shall be a Director to serve for the balance of the unexpired term.

(d) Removal. The entire Board of Directors or any individual Director may be removed from office only for cause by the vote of the shareholders entitled to elect directors.

(e) Qualification. A Director must be a natural person at least 18 years of age.

Section 3.02. *Place of Meeting*s. Meetings of the Board of Directors may be held at such place within or without the Commonwealth of Pennsylvania as the Board of Directors may appoint from time to time or as may be designated in the notice of the meeting.

Section 3.03. *Regular Meetings*. A regular meeting of the Board of Directors shall be held immediately following each annual meeting of the shareholders, at the place where such meeting of the shareholders is held or at such other place and time after the annual meeting of shareholders as the Board of Directors may designate. Subject to Article SIXTH of the Articles of Incorporation, at such meeting, the Board of Directors shall elect officers of the Corporation. In addition to such regular meeting, the Board of Directors shall have the power to fix by resolution the place, date and time of other regular meetings of the Board of Directors.

Section 3.04. *Special Meetings*. Special meetings of the Board of Directors shall be held whenever ordered by the Chairman of the Board, the Chief Executive Officer, by the Board of Directors or by any officer of the Corporation authorized by Article SIXTH of the Articles of Incorporation to call special meetings of the Board of Directors for so long as such officer is also a Director of the Corporation.

Section 3.05. *Participation in Meetings by Electronic Means*. Any Director may participate in any meeting of the Board of Directors or of any committee (*provided* such Director is otherwise entitled to participate), be counted for the purpose of determining a quorum thereof and exercise all rights and privileges to which such Director might be entitled were such Director personally in attendance, including the right to vote, or any other rights attendant to presence in person at such meeting, by means of conference telephone or other electronic means, including, without limitation, the Internet, by means of which all persons participating in the meeting can hear each other.

Section 3.06. *Notices of Meetings of Board of Directors*.

(a) Regular Meetings. No notice shall be required to be given of any regular meeting, unless the same is held at other than the place, date or time for holding such meeting as fixed in accordance with Section 3.03 of these By-Laws, in which event 48 hours' notice shall be given of the place and time of such meeting complying with Article 6 of these By-Laws.

(b) Special Meetings. Written notice stating the place, date and time of any special meeting of the Board of Directors shall be sufficient if given at least 48 hours, as provided in Article 6, in advance of the date and time fixed for the meeting.

Section 3.07. *Quorum; Action by the Board of Directors*. A majority of the Directors in office shall be necessary to constitute a quorum for the transaction of business and, subject to Article SIXTH of the Articles of Incorporation and these By-Laws, the acts of a majority of the Directors present and

voting at a meeting at which a quorum is present shall be the acts of the Board of Directors. If there is no quorum present at a duly convened meeting of the Board of Directors, the majority of those present may adjourn the meeting from place to place and from time to time.

Section 3.08. *Informal Action by the Board of Directors*. Any action required or permitted to be taken at a meeting of the Board of Directors may be taken without a meeting if, prior or subsequent to the action, a consent or consents thereto by all of the Directors in office is filed with the Secretary.

Section 3.09. *Committees*.

(a) Establishment and Powers. The Board of Directors of the Corporation may, by resolution adopted by a majority of the Directors in office, establish one or more committees to consist of one or more Directors of the Corporation. Any committee, to the extent provided in the applicable resolution of the Board of Directors or in the By-Laws, shall have and may exercise all of the powers and authority of the Board of Directors, except that a committee shall not have any power or authority as to the following:

(i) The submission to shareholders of any action requiring approval of shareholders under the Pennsylvania BCL.

(ii) The creation or filling of vacancies in the Board of Directors.

(iii) The adoption, amendment or repeal of the By-Laws.

(iv) The amendment or repeal of any resolution of the Board of Directors that by its terms is amendable or repealable only by the Board of Directors.

(v) Action on matters committed by the Articles of Incorporation, the By-Laws or resolution of the Board of Directors to another committee of the Board of Directors.

(b) Alternate Members. The Board of Directors may designate one or more Directors otherwise eligible to serve on a committee of the Board as alternate members of any committee who may replace any absent or disqualified member at any meeting of the committee or for the purpose of any written action by the committee. In the absence or disqualification of a member and alternate member or members of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another Director to act at the meeting in the place of the absent or disqualified member.

(c) Term. Each committee of the Board of Directors shall serve at the pleasure of the Board of Directors.

(d) Status of Committee Action. The term "**Board of Directors**" or "**Board**", when used in any provision of these By-Laws relating to the organization or procedures of or the manner of taking action by the Board of Directors, shall be construed to include and refer to any committee of the Board of Directors. Any provision of these By-Laws relating or referring to action to be taken by the Board of Directors or the procedure required therefor shall be satisfied by the taking of corresponding action by a committee of the Board of Directors to the extent authority to take the action has been delegated to the committee in accordance with this Section.

Section 3.10. *Nomination*. Nominations for the election of Directors may be made only (A) by the Board of Directors, (B) pursuant to this Section 3.10 by any shareholder of record entitled to vote in the election of Directors generally at the record date of the meeting and also on the date of the meeting at which Directors are to be elected or (C) by way of proxy access in accordance with Section 3.11. However, any shareholder entitled to vote in the election of Directors generally may nominate one or more persons for election as Directors at a meeting pursuant to this Section 3.10 only if written notice of such shareholder's intention to make such nomination or nominations has been delivered personally to, or been mailed to and received by the Corporation at, the principal executive offices of the Corporation, addressed to the attention of the Secretary, (a) with respect to an election to be held at an annual meeting that is called for a date that is within 30 days before or after the anniversary date of the immediately preceding annual meeting of shareholders, not less than 90 days nor more than 120 days prior to such anniversary date, and (b) with respect either to an election to be held at an annual meeting that is called for a date that is not within 30 days before or after the anniversary date of the immediately preceding annual meeting, or to a special meeting of shareholders called for the purpose of electing Directors, not later than the close of business on the tenth day following the day on which notice of the date of the meeting was mailed or public disclosure of the date of the meeting was made, whichever occurs first. Each such notice shall set forth: (i) the name and address of the shareholder intending to make the nomination and of the person or persons to be nominated; (ii) a representation that the shareholder is a holder of record of shares of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (iii) a reasonably detailed description of all agreements, arrangements and understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (iv) a reasonably detailed description of all agreements, arrangements and understandings (including, regardless of the form of settlement, any derivative, long or short positions, profit interests, forwards, futures, swaps, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions and borrowed or loaned shares) that have been entered into by or on behalf of such shareholder, and all other agreements, arrangements and understandings that have been made, the effect or intent of which is to create or mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such shareholder; (v) a reasonably detailed description of all agreements, arrangements and understandings with any person with respect to any direct or indirect compensation, reimbursement or indemnification of each nominee (A) in connection with being a nominee that has not been fully disclosed in writing to the Corporation prior to or concurrently with the submission of the notice or (B) in connection with service or action as a Director of the Corporation if so elected; (vi) such other information regarding each nominee proposed by such shareholder as would have been required to be included in a proxy statement filed pursuant to the proxy rules of the U.S. Securities and Exchange Commission (the "**SEC**") had the nominee been nominated by the Board of Directors; and (vii) the written consent of each nominee to serve as a Director of the Corporation if so elected. The presiding officer of the meeting may, in his or her sole discretion, declare invalid or refuse to acknowledge any nomination not made in compliance with the foregoing procedure.

Section 3.11. *Proxy Access*.

(a) Inclusion of Shareholder Nominees in Corporation's Proxy Statement.

(i) Subject to the provisions of this Section 3.11, if expressly requested in the relevant Nomination Notice (as defined below), the Corporation shall include in its proxy statement for any annual meeting of shareholders (but not at any special meeting of shareholders): (A) the names of any person or persons therein nominated for the election of Directors (each, a "**Shareholder**

Nominee"), who shall also be included on the Corporation's form of proxy and ballot, by any Eligible Shareholder (as defined below) or group of up to 20 Eligible Shareholders that, as determined by the Board of Directors, has (individually and collectively, in the case of a group) satisfied all applicable conditions and complied with all applicable procedures and requirements set forth in this Section 3.11 (such Eligible Shareholder or group of Eligible Shareholders being a "**Nominating Shareholder**"); (B) disclosure about each Shareholder Nominee and the Nominating Shareholder required under the rules of the SEC or other applicable law to be included in the proxy statement; (C) any statement included by the Nominating Shareholder in the Nomination Notice for inclusion in the proxy statement in support of each Shareholder Nominee's election to the Board of Directors (subject, without limitation, to Section 3.11(e)(ii), and provided that such statement does not exceed 500 words and fully complies with Section 14 of the Exchange Act, including Rule 14a-9 thereunder (the "**Supporting Statement**")); and (D) any other information that the Corporation or the Board of Directors determines, in their discretion, to include in the proxy statement relating to the Nominating Shareholder and the nomination of each Shareholder Nominee, including, without limitation, any statement in opposition to the nomination, any of the information provided pursuant to this Section 3.11 and any solicitation materials or related information with respect to a Shareholder Nominee.

(ii) For purposes of this Section 3.11, any determination to be made by the Board of Directors may be made by the Board of Directors, a committee of the Board of Directors or any officer of the Corporation designated by the Board of Directors or a committee of the Board of Directors, and any such determination shall be final and binding on any Eligible Shareholder, any Nominating Shareholder, any Shareholder Nominee and any other person so long as made in good faith (without any further requirements). If any intervening events, facts or circumstances arise subsequent to any such determination, the presiding officer of any annual meeting of shareholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall have the power and duty to determine whether a Shareholder Nominee has been nominated in accordance with the requirements of this Section 3.11and, if not so nominated, shall direct and declare at the meeting that such Shareholder Nominee shall not be considered.

(b) Maximum Number of Shareholder Nominees.

(i) The Corporation shall not be required to include in the proxy statement for an annual meeting of shareholders more Shareholder Nominees than that number constituting the greater of (A) two or (B) 20% of the total number of Directors of the Corporation then serving on the last day on which a Nomination Notice may be submitted pursuant to this Section 3.11 (rounded down to the nearest whole number) (the "**Maximum Number**").

(ii) The Maximum Number for a particular annual meeting shall be reduced by: (A) each Shareholder Nominee whose nomination is withdrawn by the Nominating Shareholder or who becomes unwilling to serve on the Board of Directors; (B) each Shareholder Nominee who ceases to satisfy, or each Shareholder Nominee of a Nominating Shareholder that ceases to satisfy, the eligibility requirements in this Section 3.11, as determined by the Board of Directors; (C) each Shareholder Nominee who the Board of Directors itself decides to nominate for election at such annual meeting; and (D) the number of incumbent Directors who had been Shareholder Nominees at either of the preceding two annual meetings of shareholders and whose reelection at the upcoming annual meeting of shareholders is being recommended by the Board of Directors. In the event that one or more vacancies for any reason occurs on the Board of Directors after the deadline for submitting a Nomination Notice as set forth in Section 3.11(d) but before the date of the annual

meeting of shareholders and the Board of Directors resolves to reduce the size of the Board of Directors in connection therewith, the Maximum Number shall be calculated based on the number of Directors in office as so reduced.

(iii) If the number of Shareholder Nominees pursuant to this Section 3.11 for any annual meeting of shareholders exceeds the Maximum Number then, promptly upon notice from the Corporation, each Nominating Shareholder will select one Shareholder Nominee for inclusion in the proxy statement until the Maximum Number is reached, going in order of the amount (largest to smallest) of shares of the Corporation's common stock that each Nominating Shareholder disclosed as owned in its Nomination Notice, with the process repeated if the Maximum Number is not reached after each Nominating Shareholder has selected one Shareholder Nominee. If, after the deadline for submitting a Nomination Notice as set forth in Section 3.11(d), a Nominating Shareholder or a Shareholder Nominee ceases to satisfy the eligibility requirements in this Section 3.11, as determined by the Board of Directors, a Nominating Shareholder withdraws its nomination or a Shareholder Nominee becomes unwilling to serve on the Board of Directors, whether before or after the mailing or other distribution of the definitive proxy statement, then the Corporation: (A) shall not be required to include in its proxy statement or on any ballot or form of proxy the Shareholder Nominee or any successor or replacement Shareholder Nominee proposed by the Nominating Shareholder or by any other Nominating Shareholder and (B) may otherwise communicate to the shareholders of the Corporation, including without limitation by amending or supplementing its proxy statement or ballot or form of proxy, that the Shareholder Nominee will not be included as a Shareholder Nominee in the proxy statement or on any ballot or form of proxy and will not be voted on at the annual meeting of shareholders (notwithstanding that proxies in respect of such vote may have been received by the Corporation).

(c) Eligibility of Nominating Shareholder.

(i) An "**Eligible Shareholder**" is a person who has either (A) been a record holder of the shares of common stock of the Corporation used to satisfy the eligibility requirements in this Section 3.11(c) continuously for the three-year period specified in Section 3.11(c)(ii) or (B) provides to the Secretary, within the time period referred to in Section 3.11(d), evidence of continuous ownership of such shares for such three-year period from one or more securities intermediaries in a form that the Board of Directors determines acceptable.

(ii) An Eligible Shareholder or group of up to 20 Eligible Shareholders may submit a nomination in accordance with this Section 3.11 only if the person or group (in the aggregate) has continuously owned at least the Minimum Number (as defined below) (as adjusted for any stock splits, reverse stock splits, stock dividends or similar events) of shares of the Corporation's common stock throughout the three-year period preceding and including the date of submission of the Nomination Notice, and continues to own at least the Minimum Number of shares through the date of the annual meeting of shareholders. The following shall be treated as one Eligible Shareholder if such Eligible Shareholder shall provide together with the Nomination Notice documentation satisfactory to the Board of Directors that the Eligible Shareholder consists only of funds that are: (A) under common management and investment control; (B) under common management and funded primarily by the same employer; or (C) a "group of investment companies" (as defined in the Investment Company Act of 1940, as amended). In the event of a nomination by a Nominating Shareholder that includes a group of Eligible Shareholders, any and all requirements and obligations for an Eligible Shareholder shall apply to each Eligible Shareholder in such group; *provided, however*, that the Minimum Number shall apply to the

aggregate ownership of the group of Eligible Shareholders constituting the Nominating Shareholder. Should any Eligible Shareholder cease to satisfy the eligibility requirements in this Section 3.11, as determined by the Board of Directors, or withdraw from a group of Eligible Shareholders constituting a Nominating Shareholder at any time prior to the annual meeting of shareholders, the Nominating Shareholder shall be deemed to own only the shares held by the remaining Eligible Shareholders. As used in this Section 3.11, any reference to a "group" or "group of Eligible Shareholders" refers to any Nominating Shareholder that consists of more than one Eligible Shareholder and to all the Eligible Shareholders that make up such Nominating Shareholder.

(iii) The "**Minimum Number**" of shares of the Corporation's common stock means 3% of the aggregate number of shares outstanding of each class of the Corporation's common stock, as disclosed in each filing by the Corporation under the Exchange Act during the three-year period prior to the submission of the Nomination Notice.

(iv) For purposes of this Section 3.11, an Eligible Shareholder "**owns**" only those outstanding shares of the Corporation's common stock as to which such Eligible Shareholder possesses both: (A) the full voting and investment rights pertaining to such shares and (B) the full economic interest in (including the opportunity for profit from and the risk of loss on) such shares; *provided* that the number of shares calculated in accordance with clauses (A) and (B) shall not include any shares: (w) purchased or sold by such Eligible Shareholder or any of its affiliates in any transaction that has not been settled or closed, (x) that are subject to short positions or were otherwise sold short by such Eligible Shareholder or any of its affiliates, (y) borrowed by such Eligible Shareholder or any of its affiliates for any purpose or purchased by such Eligible Shareholder or any of its affiliates pursuant to an agreement to resell or subject to any other obligation to resell to another person, or (z) subject to any option, warrant, forward contract, swap, contract of sale, other derivative or similar agreement entered into by such Eligible Shareholder or any of its affiliates, whether any such instrument or agreement is to be settled with shares, with cash based on the notional amount or value of outstanding shares of common stock of the Corporation or a combination thereof, in any such case, which instrument or agreement has, or is intended to have, or if exercised or settled would have, the purpose or effect of: (1) reducing in any manner, to any extent or at any time in the future, such Eligible Shareholder's or any of its affiliates' full right to vote or direct the voting of any such shares and/or (2) hedging, offsetting or altering to any degree any gain or loss arising from the full economic interest in such shares by such Eligible Shareholder or any of its affiliates. An Eligible Shareholder "owns" shares held in the name of a nominee or other intermediary so long as the Eligible Shareholder retains the right to instruct how the shares are voted with respect to the election of Directors and possesses the full economic interest in the shares. An Eligible Shareholder's ownership of shares shall be deemed to continue during any period in which the Eligible Shareholder has delegated any voting power by means of a proxy, power of attorney or other similar instrument or arrangement that is revocable at any time by the Eligible Shareholder. An Eligible Shareholder's ownership of shares shall be deemed to continue during any period in which the Eligible Shareholder has loaned such shares; *provided* that the Eligible Shareholder has the power to recall such loaned shares on not more than five business days' notice. The terms "owned," "owning" and other variations of the word "own" shall have correlative meanings. Whether outstanding shares of the Corporation are "owned" for these purposes shall be determined by the Board of Directors. For purposes of this Section 3.11(c)(iv), the term "affiliate" or "affiliates" shall have the meaning ascribed thereto under the General Rules and Regulations under the Exchange Act.

(v) No Eligible Shareholder shall be permitted to be in more than one group constituting a Nominating Shareholder, and if any Eligible Shareholder appears as a member of more than one group, such Eligible Shareholder shall be deemed to be a member of only the group that owns the largest aggregate number of shares of each class of the Corporation's common stock, as reflected in the Nomination Notice.

(d) Nomination Notice.

(i) To nominate a Shareholder Nominee pursuant to this Section 3.11 the Nominating Shareholder (including each Eligible Shareholder in the case of a Nominating Shareholder consisting of a group of Eligible Shareholders) must deliver to the Secretary at the principal executive offices of the Corporation all of the following information and documents in a form that the Board of Directors determines acceptable (collectively, the "**Nomination Notice**"), not less than 120 days nor more than 150 days prior to the anniversary of the date that the Corporation first mailed or otherwise distributed its proxy statement for the prior year's annual meeting of shareholders; *provided, however*, that if (and only if) the annual meeting of shareholders is not scheduled to be held within a period that commences 30 days before and concludes 30 days after the first anniversary date of the preceding year's annual meeting of shareholders (an annual meeting date outside such period being referred to herein as an "**Other Meeting Date**"), the Nomination Notice shall be given in the manner provided herein by the later of the close of business on the date that is 180 days prior to such Other Meeting Date or the tenth day following the date such Other Meeting Date is first publicly announced or disclosed (in no event shall the adjournment or postponement of an annual meeting, or the public announcement thereof, commence a new time period (or extend any time period) for the giving of the Nomination Notice):

(A) one or more written statements from the record holder of the shares (and from each intermediary through which the shares are or have been held during the requisite three-year holding period) verifying that, as of a date within seven days prior to the date of the Nomination Notice, the Nominating Shareholder owns, and has continuously owned for the preceding three years, the Minimum Number of shares, and the Nominating Shareholder's agreement to provide, within five business days after the record date for the annual meeting, written statements from the record holder and intermediaries verifying the Nominating Shareholder's continuous ownership of the Minimum Number of shares through the record date;

(B) an agreement to hold the Minimum Number of shares through the annual meeting and to provide immediate notice if the Nominating Shareholder ceases to own the Minimum Number of shares at any time prior to the date of the annual meeting;

(C) a Schedule 14N (or any successor form) relating to each Shareholder Nominee, completed and filed with the SEC by the Nominating Shareholder, as applicable, in accordance with SEC rules;

(D) the written consent of each Shareholder Nominee to being named in the Corporation's proxy statement, form of proxy and ballot as a Shareholder Nominee and to serving as a Director if elected;

(E) a written notice, in a form deemed satisfactory by the Board of Directors, of the nomination of each Shareholder Nominee that includes the following

additional information, agreements, representations and warranties by the Nominating Shareholder: (1) the information that would be required to be set forth in a shareholder's notice of nomination pursuant to Section 3.10; (2) a representation and warranty that the Nominating Shareholder acquired the securities of the Corporation in the ordinary course of business and did not acquire, and is not holding, securities of the Corporation for the purpose or with the intent of changing or influencing control of the Corporation; (3) a representation and warranty that the Nominating Shareholder has not nominated and will not nominate for election to the Board of Directors at the annual meeting any person other than such Nominating Shareholder's Shareholder Nominee(s); (4) a representation and warranty that the Nominating Shareholder has not engaged in and will not engage in a "solicitation" within the meaning of Rule 14a-1(l) under the Exchange Act (without reference to the exception in Section 14a-1(l)(2)(iv)) with respect to the annual meeting, other than with respect to such Nominating Shareholder's Shareholder Nominee(s) or any nominee of the Board of Directors; (5) a representation and warranty that the Nominating Shareholder will not use any form of proxy and ballot other than the Corporation's form of proxy and ballot in soliciting shareholders in connection with the election of a Shareholder Nominee at the annual meeting; (6) a representation and warranty that each Shareholder Nominee's candidacy or, if elected, membership on the Board of Directors would not violate the Articles of Incorporation, the By-Laws, any applicable law, rule, regulation, order or decree to which the Corporation is subject, including rules or regulations of any stock exchange on which the Corporation's shares of common stock are listed; (7) a representation and warranty that each Shareholder Nominee: (a) does not have any direct or indirect relationship with the Corporation that would cause the Shareholder Nominee to be deemed not independent pursuant to the Corporation's standards in its Corporate Governance Guidelines and otherwise qualifies as independent under any other standards established by the Corporation and the rules of any stock exchange on which the Corporation's shares of common stock are listed; (b) meets the audit committee and compensation committee independence requirements under the rules of any stock exchange on which the Corporation's shares of common stock are listed; (c) is a "non-employee director" for the purposes of Rule 16b-3 under the Exchange Act (or any successor rule); (d) is an "outside director" for the purposes of Section 162(m) of the Internal Revenue Code (or any successor provision); (e) is not and has not been subject to any event specified in Rule 506(d)(1) of Regulation D (or any successor rule) under the Securities Act of 1933 or Item 401(f) of Regulation S-K (or any successor rule) under the Exchange Act, without reference to whether the event is material to an evaluation of the ability or integrity of such Shareholder Nominee; and (f) meets the Director qualifications set forth in the Corporation's Corporate Governance Guidelines and any other standards established by the Corporation (notwithstanding this clause (7), for the avoidance of doubt, the Board is responsible for making the final determination of the Shareholder Nominee's independence); (8) a representation and warranty that the Nominating Shareholder satisfies the eligibility requirements set forth in Section 3.11(c) and intends to continue to satisfy such eligibility requirements through the date of the annual meeting; (9) details of any position of a Shareholder Nominee as an employee, officer or director of any company, and of any other material relationship with or material financial interest in any company, within the three years preceding the submission of the Nomination Notice; (10) if desired, a Supporting Statement; and (11) in the case of a nomination by a Nominating Shareholder comprised of a group, the designation by all Eligible Shareholders in such group of one Eligible Shareholder that is authorized to act on behalf of the Nominating

Shareholder with respect to matters relating to the nomination, including withdrawal of the nomination;

(F) an executed agreement, in a form deemed satisfactory by the Board of Directors, pursuant to which the Nominating Shareholder (including in the case of a group, each Eligible Shareholder in that group) agrees: (1) to comply with all applicable laws, rules and regulations in connection with the nomination, solicitation and election of the Shareholder Nominee; (2) to file any written solicitation or other communication with the Corporation's shareholders relating to one or more of the Corporation's Directors or director nominees or any Shareholder Nominee with the SEC, regardless of whether any such filing is required under any rule or regulation or whether any exemption from filing is available for such materials under any rule or regulation; (3) to assume all liability stemming from any action, suit or proceeding concerning any actual or alleged legal or regulatory violation arising out of any communication by the Nominating Shareholder or any of its Shareholder Nominees with the Corporation, the shareholders of the Corporation or any other person in connection with the nomination or election of Directors, including, without limitation, the Nomination Notice; (4) to indemnify and hold harmless (jointly with all other Eligible Shareholders, in the case of a group of Eligible Shareholders) the Corporation and each of its Directors, officers and employees individually against any liability, loss, damages, expenses or other costs (including attorneys' fees) incurred in connection with any threatened or pending action, suit or proceeding, whether legal, administrative or investigative, against the Corporation or any of its Directors, officers or employees arising out of or relating to a failure or alleged failure of the Nominating Shareholder or any of its Shareholder Nominees to comply with, or any breach or alleged breach of, its or their obligations, agreements or representations under, this Section 3.11; (5) in the event that any information included in the Nomination Notice or any other communication by the Nominating Shareholder (including with respect to any Eligible Shareholder included in a group) with the Corporation, the shareholders of the Corporation or any other person in connection with the nomination or election ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statements made not misleading), to promptly (and in any event within 48 hours of discovering such misstatement or omission) notify the Corporation and any other recipient of such communication of the misstatement or omission in such previously provided information and of the information that is required to correct the misstatement or omission; and (6) in the event that the Nominating Shareholder (including any Eligible Shareholder in a group) has failed to continue to satisfy the eligibility requirements described in Section 3.11(c), to promptly notify the Corporation; and

(G) an executed agreement, in a form deemed satisfactory by the Board of Directors, by each Shareholder Nominee: (1) to promptly, but in any event within ten business days after such request, provide to the Corporation such other information and certifications, including completion of the Corporation's director nominee questionnaire, as the Corporation may reasonably request; (2) at the reasonable request of the Board of Directors, any committee or any officer of the Corporation, to meet with the Board of Directors, any committee or any officer of the Corporation to discuss matters relating to the nomination of such Shareholder Nominee to the Board of Directors, including the information provided by such Shareholder Nominee to the Corporation in connection with his or her nomination and such Shareholder Nominee's eligibility to serve as a member of the Board of Directors; (3) that such Shareholder Nominee has read and agrees, if elected,

to comply with all of the Corporation's corporate governance, conflict of interest, confidentiality, and stock ownership and trading policies and guidelines, and any other Corporation policies and guidelines applicable to Directors; (4) understands his or her duties as a director under Pennsylvania law and agrees to act in accordance with those duties while serving as a Director, and (5) that such Shareholder Nominee is not and will not become a party to: (a) any agreement, arrangement or understanding with any person with respect to any direct or indirect compensation, reimbursement or indemnification of the Shareholder Nominee in connection with being a Shareholder Nominee that has not been fully disclosed in writing to the Corporation prior to or concurrently with the Nominating Shareholder's submission of the Nomination Notice; (b) any agreement, arrangement, or understanding with any person other than the Corporation with respect to any direct or indirect compensation, reimbursement, or indemnification of the Shareholder Nominee in connection with service or action as a Director of the Corporation if so elected; (c) any agreement, arrangement or understanding with any person or entity as to how such Shareholder Nominee, if elected, will vote or act on any issue (a "**Voting Commitment**") except such as is already existing and has been fully disclosed to the Corporation prior to or concurrently with the Nominating Shareholder's submission of the Nomination Notice; or (d) any Voting Commitment that could limit or interfere with such Shareholder Nominee's ability to comply, if elected, with his or her fiduciary duties under applicable law.

(ii) The information and documents required by this Section 3.11(d) to be provided by the Nominating Shareholder shall be: (A) provided with respect to and executed by each Eligible Shareholder in the case of a Nominating Shareholder comprised of a group of Eligible Shareholders; and (B) provided with respect to both the persons specified in Instructions 1 and 2 to Items 6(c) and (d) of Schedule 14N (or any successor item) and limited liability companies (x) in the case of a Nominating Shareholder that is an entity and (y) in the case of a Nominating Shareholder that is a group that includes one or more Eligible Shareholders that are entities. The Nomination Notice shall be deemed submitted on the date on which all of the information and documents referred to in this Section 3.11(d) (other than such information and documents contemplated to be provided after the date the Nomination Notice is provided) have been delivered to and received by the Secretary.

(e) Exceptions.

(i) Notwithstanding anything to the contrary contained in this Section 3.11, the Corporation may omit from its proxy statement any Shareholder Nominee and any information concerning such Shareholder Nominee (including a Nominating Shareholder's Supporting Statement) and no vote on such Shareholder Nominee will occur (notwithstanding that proxies in respect of such vote may have been received by the Corporation), and the Nominating Shareholder may not, after the last day on which a Nomination Notice would be timely, cure in any way any defect preventing the nomination of such Shareholder Nominee, if: (A) the Corporation receives a notice pursuant to the advance notice requirements set forth in Section 3.10 that a shareholder intends to nominate a candidate for director at the annual meeting, whether or not such notice is subsequently withdrawn or made the subject of a settlement with the Corporation; (B) the Nominating Shareholder (or, in the case of a Nominating Shareholder consisting of a group of Eligible Shareholders, the Eligible Shareholder that is authorized to act on behalf of the Nominating Shareholder), or any qualified representative thereof, does not appear at the annual meeting to present the nomination submitted pursuant to this Section 3.11, the Nominating

Shareholder withdraws its nomination or the presiding officer of the annual meeting declares that such nomination was not made in accordance with the procedures prescribed by this Section 3.11 and shall therefore be disregarded; (C) the Board of Directors in good faith determines that such Shareholder Nominee fails to satisfy all the standards set forth in Section 3.11(d)(i)(E)(7)(a)-(f), such Shareholder Nominee has been, within the past three years, an officer or director of a competitor, as defined for purposes of ☒Section 8 of the Clayton Antitrust Act of 1914, as amended, or if such Shareholder Nominee's nomination or election to the Board of Directors would result in the Corporation violating or failing to be in compliance with the Articles of Incorporation, the By-Laws or any applicable law, rule, regulation, order or decree to which the Corporation is subject, including any rules or regulations of any stock exchange on which the Corporation's shares of common stock are listed; (D) such Shareholder Nominee was nominated for election to the Board of Directors pursuant to this Section 3.11 at one of the Corporation's two preceding annual meetings of shareholders and either withdrew from or became ineligible or unavailable for election at such annual meeting or received less than 25% of the votes that all shareholders are entitled to cast in favor of the election of such Shareholder Nominee; or (E) the Corporation is notified, or the Board of Directors determines, that the Nominating Shareholder or such Shareholder Nominee has failed to continue to satisfy the eligibility requirements described in Section 3.11(c), any of the representations and warranties made in the Nomination Notice ceases to be true and accurate in all material respects (or omits a material fact necessary to make the statements made not misleading), such Shareholder Nominee becomes unwilling or unable to serve on the Board of Directors or any material violation or breach occurs of any of the obligations, agreements, representations or warranties of the Nominating Shareholder or such Shareholder Nominee under this Section 3.11.

(ii) Notwithstanding anything to the contrary contained in this Section 3.11, the Corporation may omit from its proxy statement, or may supplement or correct, any information, including all or any portion of the Supporting Statement or any other statement in support of a Shareholder Nominee included in the Nomination Notice, if the Board of Directors determines that: (A) such information is not true in all material respects or omits a material statement necessary to make the statements made not misleading; (B) such information directly or indirectly impugns the character, integrity or personal reputation of, or directly or indirectly makes charges concerning improper, illegal or immoral conduct or associations, without factual foundation, with respect to, any individual, corporation, partnership, association or other entity, organization or governmental authority; (C) the inclusion of such information in the proxy statement would otherwise violate SEC proxy rules or any other applicable law, rule or regulation; or (D) the inclusion of such information in the proxy statement would impose a material risk of liability upon the Corporation.

(iii) The Corporation may solicit against, and include in the proxy statement its own statement relating to, any Shareholder Nominee.

ARTICLE 4

OFFICERS

Section 4.01. *Election and Office*. The Corporation shall have a Chairman of the Board, a Chief Executive Officer, a President, a Secretary and a Treasurer who, subject to Article SIXTH of the Articles of Incorporation, shall be elected by the Board of Directors. Subject to Article SIXTH of the Articles of Incorporation, the Board of Directors may create the positions of, define the powers, rank and duties of

and elect as additional officers or assistant officers. Any number of offices may be held by the same person. The Chairman of the Board must be a Director of the Corporation. The Board of Directors may delegate to any officer the power to appoint subordinate officers and to retain or appoint employees or other agents, and to prescribe the rank, authority and duties of such subordinate officers, employees or other agents.

Section 4.02. *Term*. Each officer of the Corporation shall hold office until his successor is selected and qualified or until his earlier death, resignation or removal. Subject to Article SIXTH of the Articles of Incorporation, any officer may be removed by a vote of a majority of the Directors then in office or in the case of an officer appointed by another officer of the Corporation, by such officer. The terms of the Chairman of the Board and the Chief Executive Officer are fixed pursuant to Article SIXTH of the Articles of Incorporation.

Section 4.03. *Powers and Duties of the Chairman of the Board*. The Chairman of the Board shall have such powers and shall perform such duties as are provided in Article SIXTH of the Articles of Incorporation.

Section 4.04. *Powers and Duties of the Chief Executive Officer*. The Chief Executive Officer shall have such powers and shall perform such duties as are provided in Article SIXTH of the Articles of Incorporation.

Section 4.05. *Powers and Duties of the President*. The President shall have such powers and shall perform such duties as may, subject to Article SIXTH of the Articles of Incorporation, from time to time be assigned to the President by the Board of Directors.

Section 4.06. *Powers and Duties of the Secretary*. Unless otherwise determined by the Board of Directors, the Secretary shall be responsible for the keeping of the minutes of all meetings of the shareholders, the Board of Directors, and all committees of the Board, and for the giving and serving of all notices for the Corporation. The Secretary shall perform all other duties ordinarily incident to the office of Secretary and shall have such other powers and perform such other duties as may be assigned to the Secretary by the Board of Directors.

Section 4.07. *Powers and Duties of the Treasurer*. Unless otherwise determined by the Board of Directors, the Treasurer shall have charge of all the funds and securities of the Corporation. When necessary or proper, unless otherwise determined by the Board of Directors, the Treasurer shall endorse for collection on behalf of the Corporation checks, notes and other obligations, and shall deposit the same to the credit of the Corporation to such banks or depositories as the Board of Directors may designate and may sign all receipts and vouchers for payments made to the Corporation. The Treasurer shall be responsible for the regular entry in books of the Corporation to be kept for such purpose of a full and accurate account of all funds and securities received and paid by the Treasurer on account of the Corporation. Whenever required by the Board of Directors, the Treasurer shall render a statement of the financial condition of the Corporation. The Treasurer shall have such other powers and shall perform the duties as may be assigned to such officer from time to time by the Board of Directors. The Treasurer shall give such bond, if any, for the faithful performance of the duties of such office as shall be required by the Board of Directors.

Section 4.08. *Vacancies*. Subject to Article SIXTH of the Articles of Incorporation, the Board of Directors shall have the power to fill any vacancies in any office occurring for any reason.

Section 4.09. *Delegation of Office*. Subject to Article SIXTH of the Articles of Incorporation, the Board of Directors may delegate the powers or duties of any officer of the Corporation to any other person from time to time.

ARTICLE 5
Capital Stock

Section 5.01. *Share Certificates*

(a) Execution. Unless otherwise provided by the Board of Directors, every share certificate shall be signed by two officers and sealed with the corporate seal, which may be a facsimile, engraved or printed, but where such certificate is signed by a transfer agent or a registrar, the signature of any corporate officer upon such certificate may be a facsimile, engraved or printed. In case any officer who has signed, or whose facsimile signature has been placed upon, any share certificate shall have ceased to be such officer because of death, resignation or otherwise, before the certificate is issued, it may be issued with the same effect as if the officer had not ceased to be such at the date of its issue. The provisions of this Section shall be subject to any inconsistent or contrary agreement at the time between the Corporation and any transfer agent or registrar.

(b) Designations, Voting Rights, Preferences, Limitations and Special Rights. To the extent the Corporation is authorized to issue shares of more than one class or series, every certificate shall set forth upon the face or back of the certificate (or shall state on the face or back of the certificate that the Corporation will furnish to any shareholder upon request and without charge) a full or summary statement of the designations, voting rights, preferences, limitations and special rights of the shares of each class or series authorized to be issued so far as they have been fixed and determined and the authority of the Board of Directors to fix and determine the designations, voting rights, preferences, limitations and special rights of the classes and series of shares of the Corporation.

(c) Fractional Shares. Except as otherwise determined by the Board of Directors, shares or certificates therefor may be issued as fractional shares for shares held by any dividend reinvestment plan or employee benefit plan created or approved by the Corporation’s Board of Directors, but not by any other person.

Section 5.02. *Transfer of Shares*. Transfer of shares shall be made on the books of the Corporation as required by law. A transfer of shares represented by a share certificate shall be made only upon surrender of the share certificate, duly endorsed or with duly executed stock powers attached and otherwise in proper form for transfer, which certificate shall be canceled at the time of the transfer.

Section 5.03. *Determination of Shareholders of Record*.

(a) Fixing Record Date for Purposes of Meetings. The Board of Directors of the Corporation may fix a time prior to the date of any meeting of shareholders as a record date for the determination of the shareholders entitled to notice of, or to vote at, the meeting, which time, except in the case of an adjourned meeting, shall be not more than 90 days prior to the date of the meeting of shareholders. Only shareholders of record on the date fixed shall be so entitled notwithstanding any transfer of shares on the books of the Corporation after any record date fixed as provided in this subsection. When a determination of shareholders of record has been made as provided in this Section 5.03 for purposes of a meeting, the determination shall apply to any adjournment thereof unless the Board of Directors fixes a new record date for the adjourned meeting.

(b) Fixing Record Date for Purpose of Distributions. The Board of Directors of the Corporation may fix a time prior to the date of payment of a distribution as a record date for the determination of the shareholders entitled to be paid the distribution, which time shall be not more than 90 days prior to the date of payment. Only shareholders of record on the date fixed shall be so entitled notwithstanding any transfer of shares on the books of the Corporation after any record date fixed as provided in this subsection.

(c) Fixing Record Date for Other Purposes. The Board of Directors of the Corporation may fix a time prior to an event or action as a record date for the determination of shareholders with respect to an event or action other than a meeting of shareholders or payment of a distribution, which time shall be not more than 90 days prior to the date of the event or action.

(d) Determination when No Record Date Fixed. If a record date is not fixed:

(i) The record date for determining shareholders entitled to notice of or to vote at a meeting of shareholders shall be at the close of business on the day next preceding the day on which notice is given or, if notice is waived, at the close of business on the day immediately preceding the day on which the meeting is held.

(ii) The record date for determining shareholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

(e) Certification by Nominee. The Board of Directors may adopt a procedure whereby a shareholder of the Corporation may certify in writing to the Corporation that all or a portion of the shares registered in the name of the shareholder are held for the account of a specified person or persons. The resolution of the Board of Directors may set forth:

(i) the classification of shareholder who may certify;

(ii) the purpose or purposes for which the certification may be made;

(iii) the form of certification and information to be contained therein;

(iv) if the certification is with respect to a record date, the time after the record date within which the certification must be received by the Corporation; and

(v) such other provisions with respect to the procedure as are deemed necessary or desirable.

Upon receipt by the Corporation of a certification complying with the procedure, the persons specified in the certification shall be deemed, for the purposes set forth in the certification, to be the holders of record of the number of shares specified in place of the shareholder making the certification.

Section 5.04. *Lost Share Certificates*. Unless waived in whole or in part by the Board of Directors or any of the Chairman, any Vice Chairman, the President, any Senior Vice President, Secretary or Treasurer, unless the Board of Directors prohibits such waiver by such officer, any person requesting the issuance of a new certificate in lieu of an alleged lost, destroyed, mislaid or wrongfully taken certificate shall (a) give to the Corporation his or her bond of indemnity with an acceptable surety, and (b) satisfy such other requirements as may be imposed by the Corporation. Thereupon, a new share certificate shall

be issued to the registered owner or his or her assigns in lieu of the alleged lost, destroyed, mislaid or wrongfully taken certificate; *provided* that the request therefor and issuance thereof have been made before the Corporation has notice that such shares have been acquired by a bona fide purchaser.

ARTICLE 6
Notices; Computing Time Periods

Section 6.01. *Contents of Notice*. Whenever any notice of a meeting of the Board of Directors or of shareholders is required to be given pursuant to these By-Laws or the Articles of Incorporation of the Corporation, as the same may be amended from time to time, or otherwise, the notice shall specify the geographic location, if any, date and time of the meeting; in the case of a special meeting of shareholders or where otherwise required by law or the By-Laws, the general nature of the business to be transacted at such meeting; and any other information required by law.

Section 6.02. *Method of Notice*. Any notice required to be given to any person under the provisions of the Articles of Incorporation or these By-Laws shall be given to the person either personally or by sending a copy thereof (i) by first class or express mail, postage prepaid, or courier service, charges prepaid, to such person's postal address appearing on the books of the Corporation, or, in the case of a Director, supplied by such Director to the Corporation for the purpose of notice or (ii) by facsimile transmission, e-mail or other electronic communication to such person's facsimile number or address for e-mail or other electronic communication supplied by such person to the Corporation for purposes of notice. Notice delivered pursuant to clause (i) of the preceding sentence shall be deemed to have been given to the person entitled thereto when deposited in the United States mail or with a courier service for delivery to that person, and notice pursuant to clause (ii) of the preceding sentence shall be deemed to have been given to the person entitled thereto when sent. Except as otherwise provided in these By-Laws, or as otherwise directed by the Board of Directors, notices of meetings may be given by, or at the direction of, the Secretary.

Section 6.03. *Computing Time Periods*.

(a) Days to be Counted. In computing the number of days for purposes of these By-Laws, all days shall be counted, including Saturdays, Sundays and any Holiday; *provided*, *however*, that if the final day of any time period falls on a Saturday, Sunday or Holiday, then the final day shall be deemed to be the next day which is not a Saturday, Sunday or Holiday. In computing the number of days for the purpose of giving notice of any meeting, the date upon which the notice is given shall be counted but the day set for the meeting shall not be counted.

(b) One Day Notice. In any case where only one day's notice is being given, notice must be given at least 24 hours in advance of the date and time specified for the meeting in question by delivery in person or by telephone, facsimile, email or other means of electronic communication.

Section 6.04. *Waiver of Notice*. Whenever any notice is required to be given under the provisions of the Pennsylvania BCL or other applicable law or the Articles of Incorporation or these By-Laws, a waiver thereof in writing, signed by the person or persons entitled to the notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of the notice. Except as otherwise required by law or the next sentence, neither the business to be transacted at, nor the purpose of, a meeting need be specified in the waiver of notice of the meeting. In the case of a special meeting of shareholders, the waiver of notice shall specify the general nature of the business to be transacted. Attendance of a person at any meeting shall constitute a waiver of notice of the meeting except where a

person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting was not lawfully called or convened.

Section 6.05. *Modification of Proposal Contained in Notice*. Whenever the language of a proposed resolution is included in a written notice of a meeting required to be given under the provisions of the Pennsylvania BCL or the Articles of Incorporation or these By-Laws, the meeting considering the resolution may without further notice adopt it with such clarifying or other amendments as do not enlarge its original purpose.

Section 6.06. *Bulk Mail*. Notice of any regular or special meeting of the shareholders, or any other notice required by the Pennsylvania BCL or by the Articles of Incorporation or these By-Laws to be given to all shareholders or to all holders of a class or a series of shares, may be given by any class of post-paid mail if the notice is deposited in the United States mail at least 20 days prior to the day named for the meeting or any corporate or shareholder action specified in the notice.

Section 6.07. *Shareholders Without Forwarding Addresses*. Notice or other communications need not be sent to any shareholder with whom the Corporation has been unable to communicate for more than 24 consecutive months because communications to the shareholder have been returned unclaimed or the shareholder has otherwise failed to provide the Corporation with a current address. Whenever the shareholder provides the Corporation with a current address, the Corporation shall commence sending notices and other communications to the shareholder in the same manner as to other shareholders.

ARTICLE 7
Indemnification of Directors, Officers and Other Persons

Section 7.01. *Indemnification and Insurance*.

(a) Indemnification of Directors and Officers.

(i) Each Indemnitee (as defined below) shall be indemnified and held harmless by the Corporation to the fullest extent permitted by Pennsylvania law against all expense, liability and loss (including, without limitation, attorneys' fees, judgments, fines, taxes, penalties, and amounts paid or to be paid in settlement) reasonably incurred or suffered by the Indemnitee in connection with any Proceeding (as defined below) arising out of or related to Indemnitee's service at any time in a Covered Capacity. No indemnification pursuant to this Section shall be made, however: (A) in any case where the act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted willful misconduct or recklessness; or (B) in connection with a Proceeding (or part thereof) initiated by an Indemnitee (except in connection with a Proceeding to enforce a right to indemnification or advancement of expenses under this Article 7), unless the Proceeding (or part thereof) was authorized by the Board of Directors.

(ii) The right to indemnification provided in this Section shall include the right to have the expenses incurred by the Indemnitee in participating in any Proceeding paid by the Corporation in advance of the final disposition of the Proceeding arising out of or related to Indemnitee's service at any time in a Covered Capacity automatically and without any action or approval required by the Board of Directors; *provided* that, if Pennsylvania law continues so to require, the payment of such expenses incurred by the Indemnitee in advance of the final disposition of a Proceeding shall be made only upon delivery to the Corporation of an undertaking, by or on behalf of the Indemnitee, to repay all amounts so advanced without interest if it shall

ultimately be determined that the Indemnitee is not entitled to be indemnified under this Section or otherwise.

(iii) For purposes of this Article, (A) "**Indemnitee**" shall mean each Director and each officer of the Corporation (including Directors and officers who have ceased serving in any such capacity) who was or is a party to, or is threatened to be made a party to, or is a witness or other participant in, any Proceeding, by reason of the fact that he or she is or was a Director or officer of the Corporation or is or was serving in any capacity at the request or for the benefit of the Corporation as a director, officer, employee, agent, partner, or fiduciary of, or in any other capacity for, another corporation or any limited liability company, partnership, joint venture, trust, employee benefit plan, or other entity; (B) "**Proceeding**" shall mean any threatened, pending or completed action, suit, claim, counterclaim, cross claim, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, whether civil, criminal, administrative or investigative, including any appeal therefrom, and whether instituted by or on behalf of the Corporation or any other party; and (C) service as a Director or officer of the Corporation or in any other capacity of the type referred to in clause (A) of this paragraph shall be deemed service in a "**Covered Capacity**".

(iv) The provisions of this Article shall inure to the benefit of and be enforceable by an Indemnitee's heirs, executors, administrators and legal representatives.

(b) Indemnification of Employees and Other Persons. The Corporation may, by action of its Board of Directors and to the extent provided in such action, indemnify employees and other persons, and provide for advancement of expenses to such persons in the manner set forth in (a)(ii), above, as though they were Indemnitees, except that, if Pennsylvania law continues to so require, to the extent that an employee or agent of the Corporation has been successful on the merits or otherwise in defense of any Proceeding or in defense of any claim, issue or matter therein, the Corporation shall indemnify such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. Directors and officers of entities that have merged into, or have been consolidated with, or have been liquidated into, the Corporation shall not be Indemnitees with respect to Proceedings involving any action or failure to act of such Director or officer prior to the date of such merger, consolidation or liquidation, but such persons may be indemnified by the Board of Directors pursuant to the first sentence of this Section 7.01(b).

(c) Non-Exclusivity of Rights. The rights to indemnification and to the advancement of expenses provided in or pursuant to this Article shall not be exclusive of any other rights that any person may have or hereafter acquire under any statute, provision of the Articles of Incorporation or By-Laws, agreement, vote of shareholders or Directors, or otherwise.

(d) Insurance. The Corporation may purchase and maintain insurance, at its expense, for the benefit of any person on behalf of whom insurance is permitted to be purchased by Pennsylvania law against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person under Pennsylvania or other law. The Corporation may also purchase and maintain insurance to insure its indemnification obligations whether arising hereunder or otherwise.

(e) Fund For Payment of Expenses. The Corporation may create a fund of any nature, which may, but need not be, under the control of a trustee, or otherwise may secure in any manner its indemnification obligations, whether arising hereunder, under the Articles of Incorporation, by agreement, vote of shareholders or Directors, or otherwise.

Section 7.02. *Amendment*. The provisions of this Article 7 shall constitute a contract between the Corporation and each of its Directors and officers which may be modified as to any Indemnitee only with that person's consent or as specifically provided in this Section. Notwithstanding any other provision of these By-Laws relating to their amendment generally, any repeal or amendment of this Article 7 which is adverse to any Indemnitee shall apply to such Indemnitee only on a prospective basis, and shall not reduce or limit the rights of an Indemnitee to indemnification or to the advancement of expenses with respect to any action or failure to act occurring prior to the time of such repeal or amendment. Notwithstanding any other provision of these By-Laws, no repeal or amendment of these By-Laws shall affect any or all of this Article so as either to reduce or limit indemnification or the advancement of expenses in any manner unless adopted by (a) the unanimous vote of the Directors of the Corporation then serving, or (b) the affirmative vote of shareholders entitled to cast at least eighty percent (80%) of the votes that all shareholders are entitled to cast in the election of Directors; *provided* that no such amendment shall have retroactive effect inconsistent with the preceding sentence.

Section 7.03. *Changes in Pennsylvania Law*. References in this Article to Pennsylvania law or to any provision thereof shall be to such law, as it existed on the date this Article was adopted or as such law thereafter may be changed; *provided* that in the case of any change which: (a) limits the indemnification rights or the rights to advancement of expenses which the Corporation may provide, the rights to indemnification and to the advancement of expenses provided in this Article shall continue as theretofore to the extent permitted by law; and (b) permits the Corporation, without the requirement of any further action by shareholders or Directors, to provide broader indemnification rights or rights to the advancement of expenses than the Corporation was permitted to provide prior to such change, then the rights to indemnification and the advancement of expenses shall be so broadened to the extent permitted by law.

ARTICLE 8

Fiscal Year

Section 8.01. *Determination of Fiscal Year*. Determination of Fiscal Year. The Board of Directors shall have the power by resolution to fix the fiscal year of the Corporation. If the Board of Directors shall fail to do so, the Chief Executive Officer shall fix the fiscal year.

ARTICLE 9

Articles of Incorporation

Section 9.01. *Inconsistent Provisions*. In the event of any conflict between the provisions of these By-Laws and the provisions of the Articles of Incorporation, including, but not limited to, Article SIXTH of the Articles of Incorporation, the provisions of the Articles of Incorporation shall govern and control.

ARTICLE 10
Amendments

Section 10.01. *Amendments*. Except as otherwise provided in these By-Laws or in the Articles of Incorporation, including Article SIXTH, Article SEVENTH and Article TENTH of the Articles of Incorporation:

(a) Shareholders. The shareholders entitled to vote thereon shall have the power to alter, amend or repeal these By-Laws, by the vote of a majority of the votes cast at a duly organized meeting of shareholders by the holders of shares entitled to vote thereon, at any regular or special meeting, duly

convened after notice to the shareholders of such purpose. In the case of a meeting of shareholders to amend or repeal these By-Laws, written notice shall be given to each shareholder that the purpose, or one of the purposes, of the meeting is to consider the adoption, amendment or repeal of the By-Laws.

(b) Board of Directors. The Board of Directors (but not a committee thereof) shall have the power to alter, amend and repeal these By-Laws, regardless of whether the shareholders have previously adopted the By-Law being amended or repealed, subject to the power of the shareholders to change such action; *provided*, *however*, that the Board of Directors shall not have the power to amend these By-Laws on any subject that is expressly committed to the shareholders by the express terms hereof, by the Pennsylvania BCL or otherwise.

ARTICLE 11
Interpretation of By-Laws; Separability

Section 11.01. *Interpretation*. All words, terms and provisions of these By-Laws shall be interpreted and defined by and in accordance with the Pennsylvania BCL.

Section 11.02. *Separability*. The provisions of these By-Laws are independent of and separable from each other, and no provision shall be affected or rendered invalid or unenforceable by virtue of the fact that for any reason any other or others of them may be invalid or unenforceable in whole or in part.

ARTICLE 12
Determinations by the Board

Section 12.01. *Effect of Board Determinations*. Any determination involving interpretation or application of these By-Laws made in good faith by the Board of Directors shall be final, binding and conclusive on all parties in interest.

FIRST AMENDMENT
TO
LIMITED LIABILITY COMPANY AGREEMENT

This First Amendment to Limited Liability Company Agreement ("First Amendment") amends the Limited Liability Company Agreement (the "LLC Agreement") of NBCUniversal Media, LLC (the "LLC") and is entered into by the undersigned effective as of January 29, 2011 with reference to the following facts:

A. The sole member of the LLC (the "Member") has caused the name of the LLC to be changed to NBCUniversal Media, LLC by filing with the Delaware Secretary of State a Certificate of Amendment of Certificate of Formation of the LLC effective as of January 29, 2011.

B.The sole member of the Member caused the name of the Member to be changed from Navy, LLC to NBCUniversal, LLC, by filing with the Delaware Secretary of State a Certificate of Amendment of Certificate of Formation of the Member effective as of January 29, 2011.

C. The Member desires to amend the LLC Agreement to reflect the new name of the LLC.

NOW, THEREFORE, the undersigned hereby agrees as follows:

1. The preamble to the LLC Agreement is hereby amended to delete therefrom the prior name of the LLC and to replace it with NBCUniversal Media, LLC. All references to "the LLC" within the LLC Agreement shall be deemed to mean NBCUniversal Media, LLC.

2. Schedule A to the LLC Agreement, setting forth, among other things, the name of the member of the LLC, is hereby deleted in its entirety and replaced with Schedule A in the form attached hereto as Attachment A.

All other provisions of the LLC Agreement not modified herein shall remain in full force and effect.

IN WITNESS WHEREOF, this First Amendment is hereby executed as of the date first set forth above.

NBCUNIVERSAL, LLC
Member

/s/ Gabriela Kornzweig
Name: Gabriela Kornzweig
Title: Assistant Secretary

Attachment A

Schedule A

Members

Name	Number of Units Owned	Contact Information
NBCUniversal, LLC	1,000	One Comcast Center 1701 John F. Kennedy Blvd. Philadelphia, PA 19103-2838 USA

Dated 5 September 2014

BSKYB FINANCE UK plc

and

BRITISH SKY BROADCASTING GROUP plc

as Issuers

BSKYB FINANCE UK plc
BRITISH SKY BROADCASTING GROUP plc
BRITISH SKY BROADCASTING LIMITED
SKY SUBSCRIBERS SERVICES LIMITED

and

SKY IN-HOME SERVICE LIMITED

as Initial Guarantors

and

BNY MELLON CORPORATE TRUSTEE SERVICES LIMITED

as Trustee

TRUST DEED

relating to the

BSkyB Finance UK plc and British Sky Broadcasting Group plc

£10,000,000,000

Euro Medium Term Note Programme

unconditionally and irrevocably guaranteed by

BSkyB Finance UK plc

British Sky Broadcasting Group plc

British Sky Broadcasting Limited

Sky Subscribers Services Limited

and

Sky In-Home Service Limited

Linklaters

Ref: EXM/JB

A18113141

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This Trust Deed is made on 5 September 2014 **between**:

(1) **BSKYB FINANCE UK plc** ("**BSkyB Finance**") and **BRITISH SKY BROADCASTING GROUP plc** ("**BSkyB**") (each an "**Issuer**" and together, the "**Issuers**");

(2) **BSKYB FINANCE**, **BSKYB**, **BRITISH SKY BROADCASTING LIMITED** ("**BSkyB Limited**"), **SKY SUBSCRIBERS SERVICES LIMITED** ("**Sky Subscribers**") and **SKY IN-HOME SERVICE LIMITED** ("**Sky In-Home**") (each when acting in its capacity as guarantor, an "**Initial Guarantor**" and together, the "**Initial Guarantors**"); and

(3) **BNY MELLON CORPORATE TRUSTEE SERVICES LIMITED** (the "**Trustee**", which expression, where the context so admits, includes any other trustee for the time being of this Trust Deed).

Whereas:

(A) Each of BSkyB Finance and BSkyB proposes to issue from time to time euro medium term notes guaranteed by the relevant Guarantors (as defined herein) in an aggregate nominal amount outstanding at any one time not exceeding the Programme Limit in accordance with the Dealer Agreement (the "**Programme**") and to be constituted under this Trust Deed.

(B) Notes issued by BSkyB Finance will be guaranteed (subject as provided in this Trust Deed) by BSkyB, BSkyB Limited, Sky Subscribers, and Sky In-Home. Notes issued by BSkyB will be guaranteed (subject as provided in this Trust Deed) by BSkyB Finance, BSkyB Limited, Sky Subscribers and Sky In-Home.

(C) The Trustee has agreed to act as trustee of this Trust Deed on the following terms and conditions.

This deed witnesses and it is declared as follows:

1 Interpretation

1.1 Definitions:

Capitalised terms used in this Trust Deed but not defined herein shall have the meanings given to them in the Conditions and the following terms shall have the following meanings:

"**Agency Agreement**" means the agency agreement relating to the Programme dated 5 September 2014, between the Issuers, the Initial Guarantors, BNY Mellon Corporate Trustee Services Limited as Trustee, The Bank of New York Mellon, acting through its London branch, as initial Issuing and Paying Agent and the other agents mentioned in it as shall be amended and/or supplemented from time to time

"**Agents**" means the Issuing and Paying Agent, the other Paying Agents, the Calculation Agent, the Registrar, the other Transfer Agents or any of them

"**Bearer Note**" means a Note that is in bearer form, and includes any replacement Bearer Note issued pursuant to the Conditions and any temporary Global Note or permanent Global Note

"**BSkyB Group**" means BSkyB and its subsidiaries taken as a whole

"**Calculation Agent**" means any person named as such in the Conditions or any Successor Calculation Agent

"**Certificate**" means a registered certificate representing one or more Registered Notes of the same Series and, save as provided in the Conditions, comprising the entire holding by a

Noteholder of his Registered Notes of that Series and, save in the case of Global Certificates, being substantially in the form set out in Schedule 2

"**CGN**" means a temporary Global Note in the form set out in Part A of Schedule 1 or a permanent Global Note in the form set out in Part B of Schedule 1

"**Clearstream, Luxembourg**" means Clearstream Banking, *société anonyme*

"**Common Safekeeper**" means, in relation to a Series where the relevant Global Note is a NGN or the relevant Global Certificate is held under the NSS, the common safekeeper for Euroclear and Clearstream, Luxembourg appointed in respect of such Notes

"**Conditions**" means in respect of the Notes of each Series the terms and conditions applicable thereto which shall be substantially in the form set out in Schedule 2 as modified, with respect to any Notes represented by a Global Certificate or a Global Note, by the provisions of such Global Certificate or Global Note, shall incorporate any additional provisions forming part of such terms and conditions set out in Part A of the Final Terms relating to the Notes of that Series and shall be endorsed on the Definitive Notes subject to amendment and completion as referred to in the first paragraph of Schedule 2 Part C and any reference to a particularly numbered Condition shall be construed accordingly

"**Contractual Currency**" means, in relation to any payment obligation in respect of any Note, the currency in which that payment obligation is expressed and, in relation to Clause 10, pounds sterling or such other currency as may be agreed between the relevant Issuer and the Trustee from time to time

"**Coupons**" means the bearer coupons relating to interest bearing Bearer Notes or, as the context may require, a specific number of them and includes any replacement Coupons issued pursuant to the Conditions

"**Dealer Agreement**" means the Dealer Agreement relating to the Programme dated 5 September 2014 between the Issuers, the Initial Guarantors, Barclays Bank PLC and the other dealers and arrangers named in it as shall be amended and/or supplemented from time to time

"**Definitive Note**" means a Bearer Note in definitive form having, where appropriate, Coupons and/or a Talon attached on issue and, unless the context requires otherwise, means a Certificate (other than a Global Certificate) and includes any replacement Note or Certificate issued pursuant to the Conditions

"**EEA Regulated Market**" means a market which complies with the requirements set out in Article 4.1(14) of Directive 2004/39/EC of the European Parliament and of the Council on markets in financial instruments

"**Euroclear**" means Euroclear Bank S.A./N.V.

"**Event of Default**" means an event described in Condition 10 that, if so required by that Condition, has been certified by the Trustee to be, in its opinion, materially prejudicial to the interests of the Noteholders

"**Exchangeable Bearer Note**" means a Bearer Note that is exchangeable in accordance with its terms for a Registered Note

"**Extraordinary Resolution**" has the meaning set out in Schedule 3

"**Final Terms**" means, in relation to a Tranche, the Final Terms issued specifying the relevant issue details of such Tranche, substantially in the form of Schedule C to the Dealer Agreement

"**FSMA**" means the Financial Services and Markets Act 2000 (as amended from time to time)

"**Global Certificate**" means a Certificate substantially in the form set out in Schedule 1 Part E representing Registered Notes of one or more Tranches of the same Series that are registered in the name of a nominee for a depositary common to Euroclear, Clearstream, Luxembourg and/or any Alternative Clearing System (as defined in Clause 1.6)

"**Global Note**" means a temporary Global Note and/or, as the context may require, a permanent Global Note, a CGN and/or NGN, as the context may require

"**Guarantee**" means the guarantee and indemnity of each of the Guarantors in Clause 5 and any supplemental trust deed executed by a Guarantor as provided in Clause 5.9

"**Guarantors**" means collectively the Initial Guarantors and any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor under this Trust Deed and "**Guarantor**" shall be construed accordingly

"**holder**" in relation to a Note, Coupon or Talon, and "**Couponholder**" and "**Noteholder**" have the meanings given to them in the Conditions

"**Issuing and Paying Agent**" means the person named as such in the Conditions or any Successor Issuing and Paying Agent in each case at its specified office

"**Market**" means the EEA Regulated Market of the London Stock Exchange

"**NGN**" means a temporary Global Note in the form set out in Part C of Schedule 1 or a permanent Global Note in the form set out in Part D of Schedule 1

"**NSS**" means the new safekeeping structure which applies to Registered Notes held in global form by a Common Safekeeper for Euroclear and Clearstream, Luxembourg and which is required for such Registered Notes to be recognised as eligible collateral for Eurosystem monetary policy and intra-day credit operations

"**Notes**" means the euro medium term notes to be issued by the relevant Issuer pursuant to the Dealer Agreement, guaranteed by the relevant Guarantors, constituted by this Trust Deed and for the time being outstanding or, as the context may require, a specific number of them

"**outstanding**" means, in relation to the Notes, all the Notes issued except (a) those that have been redeemed in accordance with the Conditions, (b) those in respect of which the date for redemption has occurred and the redemption moneys (including all interest accrued on such Notes to the date for such redemption and any interest payable after such date) have been duly paid to the Trustee or to the Issuing and Paying Agent as provided in Clause 2 and remain available for payment against presentation and surrender of Notes, Certificates and/or Coupons, as the case may be, (c) those that have become void or in respect of which claims have become prescribed, (d) those that have been purchased and cancelled as provided in the Conditions, (e) those mutilated or defaced Bearer Notes that have been surrendered in exchange for replacement Bearer Notes, (f) (for the purpose only of determining how many Notes are outstanding and without prejudice to their status for any other purpose) those Bearer Notes alleged to have been lost, stolen or destroyed and in respect of which replacement Notes have been issued, (g) those Exchangeable Bearer Notes that have been exchanged for Registered Notes, and (h) any temporary Global Note to the extent that it shall have been exchanged for a permanent Global Note and any Global Note to the extent that it shall have been exchanged for one or more Definitive Notes, in either case pursuant to its provisions provided that for the purposes of (1) ascertaining the right to attend and vote at any meeting of the Noteholders, (2) the determination of how many Notes are outstanding for the purposes of Conditions 11 and 12 and Schedule 3, (3) the exercise of any discretion, power or authority that the Trustee is required, expressly or impliedly, to exercise in or by reference to the

interests of the Noteholders and (4) the certification (where relevant) by the Trustee as to whether a Potential Event of Default is in its opinion materially prejudicial to the interests of the Noteholders, those Notes that are beneficially held by or on behalf of the relevant Issuer, the relevant Guarantors or any of their subsidiaries and not cancelled shall (unless no longer so held) be deemed not to remain outstanding. Save for the purposes of the proviso herein, in the case of each NGN, the Trustee shall rely on the records of Euroclear and Clearstream, Luxembourg in relation to any determination of the nominal amount outstanding of each NGN

"**Paying Agents**" means the persons (including the Issuing and Paying Agent) referred to as such in the Conditions or any Successor Paying Agents in each case at their respective specified offices

"**permanent Global Note**" means a Global Note representing Bearer Notes of one or more Tranches of the same Series, either on issue or upon exchange of a temporary Global Note, or part of it, and which shall be substantially in the form set out in Part B or Part D of Schedule 1, as the case may be

"**Potential Event of Default**" means an event or circumstance that would with the giving of notice, lapse of time, issue of a certificate and/or fulfilment of any other requirement provided for in Condition 10 become an Event of Default

"**Procedures Memorandum**" means administrative procedures and guidelines relating to the settlement of issues of Notes as shall be agreed upon from time to time by the Issuers, the Guarantors, the Trustee, the Permanent Dealers (as defined in the Dealer Agreement) and the Issuing and Paying Agent and which, at the date of this Agreement, are set out in Schedule A to the Dealer Agreement

"**Programme Limit**" means the maximum aggregate nominal amount of Notes that may be issued and outstanding at any time under the Programme, as such limit may be increased pursuant to the Dealer Agreement

"**Redemption Amount**" means the Final Redemption Amount, the Early Redemption Amount, the Optional Redemption Amount (all as defined in the Conditions) or the amount payable in respect of the Notes upon a Special Acquisition Redemption, as the case may be

"**Register**" means the register maintained by the Registrar

"**Registered Note**" means a Note in registered form

"**Registrar**" means the person named as such in the Conditions or any Successor Registrar in each case at its specified office

"**Series**" means a series of Notes comprising one or more Tranches, whether or not issued on the same date, that (except in respect of the first payment of interest and their issue price) have identical terms on issue and are expressed to have the same series number

"**specified office**" means, in relation to a Paying Agent, the Registrar or a Transfer Agent the office identified with its name at the end of the Conditions or any other office approved by the Trustee and notified to Noteholders pursuant to Clause 9.10

"**Successor**" means, in relation to an Agent such other or further person as may from time to time be appointed by the Issuers and the Guarantors as such Agent with the written approval of, and on terms approved in writing by, the Trustee and notice of whose appointment is given to Noteholders pursuant to Clause 9.10

"**Talons**" mean talons for further Coupons or, as the context may require, a specific number of them and includes any replacement Talons issued pursuant to the Conditions

"**TARGET System**" means the Trans-European Automated Real-Time Gross Settlement Express Transfer (known as TARGET 2) System which was launched on 19 November 2007 or any successor thereto

"**temporary Global Note**" means a Global Note representing Bearer Notes of one or more Tranches of the same Series on issue and which shall be substantially in the form set out in Part A or Part C of Schedule 1, as the case may be

"**Tranche**" means, in relation to a Series, those Notes of that Series that are issued on the same date at the same issue price and in respect of which the first payment of interest is identical

"**Transfer Agents**" means the persons (including the Registrar) referred to as such in the Conditions or any Successor Transfer Agents in each case at their specified offices and

"**trust corporation**" means a trust corporation (as defined in the Law of Property Act 1925) or a corporation entitled to act as a trustee pursuant to applicable foreign legislation relating to trustees.

1.2 Construction of Certain References: References to:

1.2.1 the records of Euroclear and Clearstream, Luxembourg shall be to the records that each of Euroclear and Clearstream, Luxembourg holds for its customers which reflect the amount of such customers' interests in the Notes

1.2.2 costs, charges, remuneration or expenses include any value added, turnover or similar tax charged in respect thereof

1.2.3 an action, remedy or method of judicial proceedings for the enforcement of creditors' rights include references to the action, remedy or method of judicial proceedings in jurisdictions other than England as shall most nearly approximate thereto and

1.2.4"**reasonable**" or "**reasonably**" and similar expressions relating to the Trustee and any exercise of any power, opinion, determination or other similar matter shall be construed as meaning reasonable or reasonably (as the case may be) having regard to, and taking into account the interests of, the Noteholders.

1.3 Headings: Headings shall be ignored in construing this Trust Deed.

1.4 Contracts:

References in this Trust Deed to this Trust Deed or any other document are to this Trust Deed or those documents as amended, supplemented or replaced from time to time in relation to the Programme and include any document that amends, supplements or replaces them.

1.5 Schedules: The Schedules are part of this Trust Deed and have effect accordingly.

1.6 Alternative Clearing System:

References in this Trust Deed to Euroclear and/or Clearstream, Luxembourg shall, wherever the context so permits, be deemed to include reference to any additional or alternative clearing system approved by the Issuers, the Guarantors, the Trustee and the Issuing and Paying Agent (an "**Alternative Clearing System**"). In the case of NGNs or Global Certificates held under the NSS, such Alternative Clearing System must also be authorised to hold such Notes as eligible collateral for Eurosystem monetary policy and intra-day credit operations.

1.7 Contracts (Rights of Third Parties) Act 1999:

A person who is not a party to this Trust Deed has no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Trust Deed except and to the extent (if any) that this Trust Deed expressly provides for such

Act to apply to any of its terms. For the avoidance of doubt and notwithstanding the provisions of Clause 10.4, no consent is required from any person who is not a party to this Trust Deed to amend any term of this Trust Deed.

2 Issue of Notes and Covenant to pay

2.1 Issue of Notes:

Each Issuer may from time to time issue Notes in Tranches of one or more Series on a continuous basis with no minimum issue size in accordance with the Dealer Agreement. Before issuing any Tranche, the relevant Issuer shall give written notice to the Trustee of the proposed issue of such Tranche (or procure that such notice is given), specifying the details to be included in the relevant Final Terms. Upon the issue by the relevant Issuer of any Notes expressed to be constituted by this Trust Deed, such Notes shall forthwith be constituted by this Trust Deed without any further formality and irrespective of whether or not the issue of such debt securities contravenes any covenant or other restriction in this Trust Deed or the Programme Limit.

2.2 Separate Series:

The provisions of Clauses 2.3, 2.4, 2.5 and 2.6 and of Clauses 3 to 18 and Schedule 3 (all inclusive) shall apply *mutatis mutandis* separately and independently to the Notes of each Series and in such Clauses and Schedule the expressions “Noteholders”, “Certificates”, “Coupons”, “Couponholders” and “Talons”, together with all other terms that relate to Notes or their Conditions, shall be construed as referring to those of the particular Series in question and not of all Series unless expressly so provided, so that each Series shall be constituted by a separate trust pursuant to Clause 2.3 and that, unless expressly provided, events affecting one Series shall not affect any other.

2.3 Covenant to Pay:

The relevant Issuer shall on any date when any Notes become due to be redeemed, in whole or in part, unconditionally pay to or to the order of the Trustee in the Contractual Currency, in the case of any Contractual Currency other than euro, in the principal financial centre for the Contractual Currency and in the case of euro, in a city in which banks have access to the TARGET System, in same day funds the Redemption Amount of the Notes becoming due for redemption on that date together with any applicable premium and shall (subject to the Conditions) until such payment (both before and after judgment) unconditionally so pay to or to the order of the Trustee interest in respect of the nominal amount of the Notes outstanding as set out in the Conditions (subject to Clause 2.6) provided that (1) subject to the provisions of Clause 2.5, payment of any sum due in respect of the Notes made to the Issuing and Paying Agent as provided in the Agency Agreement shall, to that extent, satisfy such obligation except to the extent that there is failure in its subsequent payment to the relevant Noteholders or Couponholders under the Conditions and (2) a payment made after the due date or as a result of the Note becoming repayable following an Event of Default shall be deemed to have been made when the full amount due has been received by the Issuing and Paying Agent or the Trustee and notice to that effect has been given to the Noteholders (if required under Clause 9.8), except to the extent that there is failure in its subsequent payment to the relevant Noteholders or Couponholders under the Conditions. This covenant shall only have effect each time Notes are issued and outstanding, when the Trustee shall hold the benefit of this covenant on trust for the Noteholders and Couponholders of the relevant Series.

2.4 Discharge:

Subject to Clause 2.5, any payment to be made in respect of the Notes or the Coupons by the relevant Issuer, the relevant Guarantors or the Trustee may be made as provided in the Conditions and any payment so made shall (subject to Clause 2.5) to that extent be a good discharge to the relevant Issuer, the relevant Guarantors or the Trustee, as the case may be (including, in the case of Notes represented by a NGN whether or not the corresponding entries have been made in the records of Euroclear and Clearstream, Luxembourg).

2.5 Payment after a Default: At any time after an Event of Default or a Potential Event of Default has occurred the Trustee may:

2.5.1 by notice in writing to the relevant Issuer, the relevant Guarantors, the Paying Agents and the Transfer Agents, require the Paying Agents and the Transfer Agents, until notified by the Trustee to the contrary, so far as permitted by applicable law:

(i) to act as Paying Agents and Transfer Agents of the Trustee under this Trust Deed and the Notes on the terms of the Agency Agreement (with consequential amendments as necessary and except that the Trustee's liability for the indemnification, remuneration and expenses of the Paying Agents and the Transfer Agents shall be limited to the amounts for the time being held by the Trustee in respect of the Notes on the terms of this Trust Deed) and thereafter to hold all Notes, Certificates, Coupons and Talons and all moneys, documents and records held by them in respect of Notes, Certificates, Coupons and Talons to the order of the Trustee or

(ii) to deliver all Notes, Certificates, Coupons and Talons and all moneys, documents and records (save for those required to be retained by law or regulation) held by them in respect of the Notes, Certificates, Coupons and Talons to the Trustee or as the Trustee directs in such notice and

2.5.2 by notice in writing to the relevant Issuer and the relevant Guarantors require them to make all subsequent payments in respect of the Notes, Coupons and Talons to or to the order of the Trustee and not to the Issuing and Paying Agent with effect from the issue of any such notice to the relevant Issuer, and from then until such notice is withdrawn, proviso (1) to Clause 2.3 above shall cease to have effect.

2.6 Rate of Interest After a Default: If the Notes bear interest at a floating or other variable rate and they become immediately payable under the Conditions, the rate of interest payable in respect of them shall continue to be calculated by the Calculation Agent in accordance with the Conditions (with consequential amendments as necessary) except that the rates of interest need not be published unless the Trustee otherwise requires. The first period in respect of which interest shall be so calculable shall commence on the expiry of the Interest Period during which the Notes become so repayable.

3 Form of the Notes

3.1 The Global Notes: The Notes shall initially be represented by a temporary Global Note, a permanent Global Note or one or more Certificates in the nominal amount of the Tranche being issued. Interests in temporary Global Notes shall be exchangeable for Definitive Notes, Registered Notes or interests in permanent Global Notes as set out in each temporary Global Note. Interests in permanent Global Notes shall be exchangeable for Definitive Notes and/or Registered Notes as set out in each permanent Global Note.

3.2 The Definitive Notes: The Definitive Notes, Coupons and Talons shall be security printed and the Certificates shall be printed, in each case in accordance with applicable legal and stock exchange requirements

substantially in the forms set out in Schedule 2. The Notes and Certificates (other than Global Certificates) shall be endorsed with the Conditions.

3.3 Signature: The Notes, Certificates, Coupons and Talons shall be signed manually or in facsimile by a director or authorised signatory of the relevant Issuer, the Notes shall be authenticated by or on behalf of the Issuing and Paying Agent and the Certificates shall be authenticated by or on behalf of the Registrar. The relevant Issuer may use the facsimile signature of a person who at the date of this Trust Deed is such a director or authorised signatory even if at the time of issue of any Notes, Certificates, Coupons or Talons he no longer holds that office or he is no longer so authorised, as the case may be. In the case of a Global Note which is a NGN or a Global Certificate which is held under the NSS, the Issuing and Paying Agent or the Registrar shall also instruct the Common Safekeeper to effectuate the same. Notes, Certificates, Coupons and Talons so executed and authenticated (and effectuated, if applicable) shall be or, in the case of Certificates, represent binding and valid obligations of the relevant Issuer.

4 Stamp Duties and Taxes

4.1 Stamp Duties: The relevant Issuer shall pay any stamp, issue, documentary or other taxes and duties, including interest and penalties, payable in Belgium, Luxembourg, the United Kingdom and the country of each Contractual Currency in respect of the creation, issue and offering of the Notes, Certificates, Coupons and Talons and the execution or delivery of this Trust Deed. The relevant Issuer shall also indemnify the Trustee, the Noteholders and the Couponholders from and against all stamp, issue, documentary or other taxes paid by any of them in any jurisdiction in connection with any action taken by or on behalf of the Trustee or, as the case may be, the Noteholders or the Couponholders to enforce the relevant Issuer's or the relevant Guarantor's obligations under this Trust Deed or the Notes, Certificates, Coupons or Talons.

4.1 Change of Taxing Jurisdiction: If the relevant Issuer or the relevant Guarantors become subject generally to the taxing jurisdiction of a territory or a taxing authority of or in that territory with power to tax other than or in addition to the United Kingdom or any such authority of or in such territory then the relevant Issuer or, as the case may be, the relevant Guarantors shall (unless the Trustee otherwise agrees) give the Trustee an undertaking satisfactory to the Trustee in terms corresponding to the terms of Condition 8 with the substitution for, or (as the case may require) the addition to, the references in that Condition to the United Kingdom of references to that other or additional territory or authority to whose taxing jurisdiction the relevant Issuer or the relevant Guarantors have become so subject. In such event this Trust Deed and the Notes, Certificates, Coupons and Talons shall be read accordingly.

5 Guarantee and Indemnity

5.1 Guarantee: Each of the Guarantors (by the execution of this Trust Deed or any amendment or supplement) unconditionally, irrevocably, jointly and severally guarantees that if the relevant Issuer does not pay any sum payable by it under this Trust Deed, the Notes or the Coupons by the time and on the date specified for such payment (whether on the normal due date, on acceleration or otherwise), such Guarantor shall pay that sum to or to the order of the Trustee, in the manner provided in Clause 2.3 (or if in respect of sums due under Clause 10, in pounds sterling in London in immediately available funds) before close of business on that date in the city to which payment is so to be made. Clause 2.3.1 and 2.3.2 shall apply (with consequential amendments as necessary) to such payments other than those in respect of sums due under Clause 10. All payments under the Guarantee by the Guarantors shall be made subject to Condition 8 and Clause 4.2.

5.2 Guarantor as Principal Debtor: As between the relevant Guarantors and the Trustee, the Noteholders and the Couponholders but without affecting the relevant Issuer's obligations, the relevant Guarantors shall be jointly and severally liable under this Clause as if they were the sole principal debtors and not merely sureties. Accordingly, they shall not be discharged, nor shall their liability be affected, by anything that would not discharge them or affect their liability if they were sole principal debtors (including (1) any time, indulgence, waiver or consent at any time given to the relevant Issuer or any other person, (2) any amendment to any other provisions of this Trust Deed or to the Conditions or to any security or other guarantee or indemnity, (3) the making or absence of any demand on the relevant Issuer or any other person for payment, (4) the enforcement or absence of enforcement of this Trust Deed, the Notes or the Coupons or of any security or other guarantee or indemnity, (5) the taking, existence or release of any security, other guarantee or indemnity, (6) the dissolution, amalgamation, reconstruction or reorganisation of the relevant Issuer or any other person or (7) the illegality, invalidity or unenforceability of or any defect in any provision of this Trust Deed, the Notes or the Coupons or any of the relevant Issuer's obligations under any of them).

5.3 Guarantor's Obligations Continuing: Each Guarantor's obligations under this Trust Deed are and shall remain in full force and effect by way of continuing security until no sum remains payable under this Trust Deed, the Notes or the Coupons. Furthermore, those obligations of each relevant Guarantor are additional to, and not instead of, any security or other guarantee or indemnity at any time existing in favour of any person, whether from the relevant Guarantors or otherwise and may be enforced without first having recourse to the relevant Issuer, any other person, any security or any other guarantee or indemnity. Each Guarantor irrevocably waives all notices and demands of any kind otherwise required to give effect to this Clause 5.3.

5.4 Exercise of Guarantor's Rights: So long as any sum remains payable under this Trust Deed, the Notes or the Coupons:

5.4.1 any right of the relevant Guarantors, by reason of the performance of any of their obligations under this Clause, to be indemnified by the relevant Issuer or to take the benefit of or to enforce any security or other guarantee or indemnity against the Issuer shall be exercised and enforced by the relevant Guarantors only in such manner and on such terms as the Trustee may require or approve and

5.4.2 any amount received or recovered by the relevant Guarantors (a) as a result of any exercise of any such right or (b) in the dissolution, amalgamation, reconstruction or reorganisation of the relevant Issuer shall be held in trust for the Trustee and immediately paid to the Trustee and the Trustee shall hold it on the trusts set out in Clause 6.1.

5.5 Suspense Accounts: Any amount received or recovered by the Trustee (otherwise than as a result of a payment by the relevant Issuer to the Trustee in accordance with Clause 2) in respect of any sum payable by the relevant Issuer under this Trust Deed, the Notes or the Coupons may be placed in a suspense account and kept there for so long as the Trustee thinks fit.

5.6 Avoidance of Payments: The relevant Guarantors shall on demand indemnify the Trustee, each Noteholder and each Couponholder against any liability, loss or properly incurred and properly documented cost or expense sustained or incurred by them as a result of them being required for any reason (including any bankruptcy, insolvency, winding-up, dissolution, or similar law of any jurisdiction) to refund all or part of any amount received or recovered by them in respect of any sum payable by the relevant Issuer under this Trust Deed, any Note

or the Coupons relating to that Note and shall in such event pay to it on demand the amount as refunded by it.

5.7 Debts of Issuers: If any moneys become payable by the relevant Guarantors under this Guarantee, the relevant Issuer shall not (except in the event of the liquidation of that Issuer) so long as any such moneys remain unpaid, pay any moneys for the time being due from the relevant Issuer to the relevant Guarantors.

5.8 Indemnity: As separate, independent and alternative stipulations, the relevant Guarantors unconditionally and irrevocably agree (1) that any sum that, although expressed to be payable by the relevant Issuer under this Trust Deed, the Notes or the Coupons, is for any reason (whether or not now existing and whether or not now known or becoming known to the relevant Issuer, the relevant Guarantor, the Trustee or any Noteholder or Couponholder) not recoverable from the relevant Guarantors on the basis of a guarantee shall nevertheless be recoverable from them as if they were the sole principal debtors and shall be paid by them to the Trustee on demand and (2) as a primary obligation to indemnify the Trustee, each Noteholder and each Couponholder against any loss suffered by it as a result of any sum expressed to be payable by the relevant Issuer under this Trust Deed, the Notes or the Coupons not being paid on the date and otherwise in the manner specified in this Trust Deed or any payment obligation of the relevant Issuer under this Trust Deed, the Notes or the Coupons being or becoming void, voidable or unenforceable for any reason (whether or not now existing and whether or not now known or becoming known to the Trustee, any Noteholder or any Couponholder), the amount of that loss being the amount expressed to be payable by the relevant Issuer in respect of the relevant sum.

5.9 Guarantees by Subsidiaries: BSkyB shall procure that, as long as any Note comprising a Series issued by a relevant Issuer remains outstanding:

5.9.1 to the extent that, after the first Tranche of the Notes comprising such Series, is issued, any Subsidiary that is not a Guarantor issues any guarantee of any Indebtedness for money borrowed in excess of £50,000,000; and

5.9.2 for so long as any Subsidiary is or becomes a guarantor of Indebtedness pursuant to the terms of the 2005 Bonds, the 2008 Bonds, the 2012 Bonds or for moneys borrowed under the Revolving Credit Facility,

BSkyB will cause such Subsidiary to enter into a supplemental trust deed to this Trust Deed pursuant to which it shall agree irrevocably and unconditionally to guarantee on the terms *mutatis mutandis* of Clause 5 and on a *pari passu* basis with such Subsidiary's obligations as guarantor as are referred to in sub-paragraph (2) above the due and punctual payment of all sums expressed to be payable by such Issuer under this Trust Deed, the Notes and Coupons when and as the same shall become due and payable.

5.10 Release of Guarantors: In the event any Guarantor (other than BSkyB Finance, BSkyB, BSkyB Limited and Sky Subscribers) shall have been fully and unconditionally released from all obligations under guarantees of Indebtedness for money borrowed in excess of £50,000,000, such Guarantor shall be deemed released from all obligations under its Guarantee without any further action required on the part of the Trustee, any Noteholder or any Couponholder. Any such Guarantor not so released shall remain irrevocably and unconditionally liable for its obligations under its Guarantee. The Trustee agrees to enter into an appropriate instrument evidencing any such release, as shall be delivered to it by the relevant Issuer, upon receipt of (i) a written request from each of the relevant Issuer and such Guarantor, and (ii) a certificate signed by two directors

of each of the relevant Issuer and such Guarantor certifying as to such Guarantor's compliance with the terms of this Trust Deed upon which certificate(s) the Trustee can rely without further enquiry and without liability to any person.

Subject to the delivery of the certificates of the relevant Issuer and the relevant Guarantor referred to above, the Trustee agrees to execute such documentation as the relevant Guarantor may reasonably require to effect its release as a Guarantor, provided that the Trustee is satisfied that the obligations of the relevant Issuer and the other Guarantors will remain in full force and effect notwithstanding such release and the relevant Issuer and the other Guarantors undertake to execute such documentation as the Trustee may reasonably require to give effect hereto.

6 Application of moneys received by the Trustee

6.1 Declaration of Trust: All moneys received by the Trustee in respect of the Notes or amounts payable under this Trust Deed shall, despite any appropriation of all or part of them by the relevant Issuer or the relevant Guarantors, be held by the Trustee on trust to apply them (subject to Clauses 5.5 and 6.2):

6.1.1 first, in payment of all costs, charges, expenses and liabilities properly incurred by the Trustee (including remuneration payable to it) in carrying out its functions under this Trust Deed

6.1.2 secondly, in payment of all costs, charges, expenses and liabilities properly incurred by the Agents in carrying out their respective functions under the Conditions and/or the Agency Agreement;

6.1.3 thirdly, in payment of any amounts owing in respect of the Notes or Coupons *pari passu* and rateably and

6.1.4 fourthly, in payment of any balance to the relevant Issuer for itself or, if any moneys were received from the relevant Guarantors and to the extent of such moneys, the relevant Guarantors.

If the Trustee holds any moneys in respect of Notes or Coupons that have become void or in respect of which claims have become prescribed, the Trustee shall hold them on these trusts.

6.2 Accumulation: If the amount of the moneys at any time available for payment in respect of the Notes under Clause 6.1 is less than 10 per cent. of the nominal amount of the Notes then outstanding, the Trustee may, at its discretion, invest such moneys. The Trustee may retain such investments and accumulate the resulting income until the investments and the accumulations, together with any other funds for the time being under its control and available for such payment, amount to at least 10 per cent. of the nominal amount of the Notes then outstanding and then such investments, accumulations and funds (after deduction of, or provision for, any applicable taxes) shall be applied as specified in Clause 6.1.

6.3 Investment: Moneys held by the Trustee may be invested in its name or under its control in any investments or other assets anywhere whether or not they produce income or deposited in its name or under its control at such bank or other financial institution in such currency as the Trustee may, in its absolute discretion, think fit. If that bank or institution is the Trustee or a subsidiary, holding or associated company of the Trustee, it need only account for an amount of interest equal to the standard amount of interest payable by it on such a deposit to an independent customer. The Trustee may at any time vary or transpose any such investments or assets or convert any moneys so deposited into any other currency, and shall not be responsible for any resulting loss, whether by depreciation in value, change in exchange rates or otherwise.

7 Enforcement

7.1 Proceedings brought by the Trustee: At any time after the Notes of any Series shall have become immediately due and repayable, the Trustee may at its discretion and without further notice take such steps, actions or proceedings as it may think fit against the relevant Issuer to enforce repayment thereof together with premium (if any) and accrued interest and any other moneys payable pursuant to this Trust Deed and may, in order to enforce the obligations of the relevant Guarantors under this Trust Deed, at its discretion and without further notice take such steps, actions or proceedings as it may think fit against the relevant Guarantors.

7.2 Proof of default: Should the Trustee take legal proceedings against the relevant Issuer or the relevant Guarantors (as the case may be) to enforce any of the provisions of this Trust Deed:

7.2.1 proof therein that as regards any specified Note the relevant Issuer or the relevant Guarantors (as the case may be) have made default in paying any principal, premium or interest due in respect of such Note shall (unless the contrary be proved) be sufficient evidence that the relevant Issuer or the relevant Guarantors (as the case may be) have made the like default as regards all other Notes which are then due and repayable and

7.2.2proof therein that as regards any specified Coupon the relevant Issuer or the relevant Guarantors (as the case may be) have made default in paying any interest due in respect of such Coupon shall (unless the contrary be proved) be sufficient evidence that the relevant Issuer or the relevant Guarantors (as the case may be) have made the like default as regards all other Coupons which are then due and payable.

8 Proceedings

8.1 Action taken by Trustee: The Trustee shall not be bound to take any such steps, actions or proceedings as are mentioned in Clause 7.1 unless respectively directed or requested to do so (i) by an Extraordinary Resolution or (ii) in writing by the holders of at least one-quarter in nominal amount of the Notes of the relevant Series then outstanding and in either case then only if it shall be indemnified and/or secured and/or prefunded to its satisfaction against all actions, proceedings, claims and demands to which it may thereby render itself liable and all costs, charges, damages, fees, losses and expenses which it may incur by so doing.

8.2 Trustee only to enforce: Only the Trustee may enforce the provisions of this Trust Deed. No holder shall be entitled to proceed directly against the relevant Issuer or the relevant Guarantors to enforce the performance of any of the provisions of this Trust Deed unless the Trustee having become bound as aforesaid to take proceedings fails to do so within a reasonable period and such failure shall be continuing.

9 Covenants

So long as any Note is outstanding, each of the relevant Issuer and the relevant Guarantors shall:

9.1 Books of Account: keep, and procure that each of its respective subsidiaries keeps, proper books of account and, at any time after an Event of Default or Potential Event of Default has occurred or if the Trustee reasonably believes that such an event has occurred, so far as permitted by applicable law and regulation, allow, and procure that each such subsidiary shall allow, the Trustee and anyone appointed by it to whom the

relevant Issuer, the relevant Guarantor and/or the relevant subsidiary has no reasonable objection, access to its books of account at all reasonable times during normal business hours.

9.2 Notice of Events of Default or Change of Control: notify the Trustee in writing (i) immediately on becoming aware of the occurrence of any Event of Default or Potential Event of Default, (ii) in accordance with Condition 6(f) of any intention to redeem the Notes pursuant to the Special Acquisition Redemption, (iii) promptly upon becoming aware that the conditions to closing of the Sky Deutschland Acquisition set out in the Sky Deutschland SPA have been satisfied or, if applicable, waived on or prior to the Sky Deutschland Longstop Date, (iv) in accordance with Condition 6(g) in relation to a Change of Control Put Event and (v) promptly in relation to a Change of Control (provided such Change of Control has been publicly announced).

9.3 Information: so far as permitted by applicable law and regulation, give the Trustee such information as it reasonably requires to perform its functions.

9.4 Financial Statements etc.: send to the Trustee (if the same are produced) at the time of their issue and in the case of annual financial statements in any event within 180 days of the end of each financial year, and in the case of interim financial statements in any event within 90 days of the end of the relevant financial period, three copies in English of every balance sheet, profit and loss account, report or other notice, statement or circular issued, or that legally or contractually should be issued, to the members (other than such notices, statements or circulars that are issued solely to intra-group companies within the BSkyB Group) or creditors (or any class of them) of the relevant Issuer or the relevant Guarantor or any holding company thereof generally in their capacity as such.

9.5 Certificate of Directors: send to the Trustee, within 14 days of its annual audited financial statements being made available to its members, and also within 14 days of any request by the Trustee a certificate of the relevant Issuer or, as the case may be, the relevant Guarantor signed by any two of its directors that, having made all reasonable enquiries, to the best of the knowledge, information and belief of the relevant Issuer or, as the case may be, the relevant Guarantor as at a date (the "**Certification Date**") not more than five days before the date of the certificate no Event of Default, Potential Event of Default or other breach of this Trust Deed had occurred since the Certification Date of the last such certificate or (if none) the date of this Trust Deed or, if such an event had occurred, giving details of it.

9.6 Notices to Noteholders: send to the Trustee the form of each notice to be given to Noteholders and, once given, two copies of each such notice, such notice to be in a form approved by the Trustee (such approval, unless so expressed, not to constitute approval for the purposes of section 21 of the FSMA of any such notice which is a communication within the meaning of section 21 of the FSMA).

9.7 Further Acts: so far as permitted by applicable law and regulation, do such further things as may be necessary in the reasonable opinion of the Trustee to give effect to this Trust Deed.

9.8 Notice of Late Payment: forthwith upon request by the Trustee give notice to the Noteholders of any unconditional payment to the Issuing and Paying Agent or the Trustee of any sum due in respect of the Notes or Coupons made after the due date for such payment.

9.9 Listing and Trading: if the Notes are so listed and traded, use all reasonable endeavours to maintain the listing of the Notes on the official list of the Financial Conduct Authority under Part VI of the FSMA (or, if at any time the Financial Conduct Authority is not the relevant competent authority, such other body or organisation

as shall be the competent authority under the FSMA in the United Kingdom at such time) and the trading of such Notes on the Market or such other stock exchange as the Notes may be listed and traded on the date on which the First Tranche of the Notes was issued but, if it is unable to do so, having used such endeavours, or if the maintenance of such listing and trading is agreed by the Trustee to be unduly onerous and the Trustee is satisfied that the interests of the Noteholders would not be thereby materially prejudiced, instead use all reasonable endeavours to obtain and maintain a listing of the Notes on another stock exchange and/or admission to trading on another market, in each case approved in writing by the Trustee.

9.10 Change in Agents: give at least 14 days' prior notice to the Noteholders of any future appointment, resignation or removal of an Agent or of any change by an Agent of its specified office and not make any such appointment or removal without the Trustee's written approval.

9.11 Provision of Legal Opinions: procure the delivery of legal opinions addressed to the Trustee dated the date of such delivery, in form and content acceptable to the Trustee:

9.11.1 from legal advisers, reasonably acceptable to the Trustee as to the legality, validity and enforceability of this Trust Deed under the laws of England on the date of any amendment to or supplement of this Trust Deed and on the date of any update of the Programme;

9.11.2 from legal advisers, reasonably acceptable to the Trustee as to such law as may reasonably be requested by the Trustee, on the issue date for the Notes in the event of a proposed issue of Notes of such a nature and having such features as might lead the Trustee to conclude that it would be prudent, having regard to such nature and features, to obtain such legal opinion(s) or in the event that the Trustee considers it prudent in view of a change (or proposed change) in (or in the interpretation or application of) any applicable law, regulation or circumstance affecting the relevant Issuer, the relevant Guarantors, the Trustee, the Notes, the Certificates, the Coupons, the Talons, this Trust Deed or the Agency Agreement; and

9.11.3 on each occasion on which a legal opinion is given to any Dealer in relation to an issue of Notes pursuant to the Dealer Agreement from the legal adviser giving such opinion.

9.12 Notes Held by Issuer etc.: send to the Trustee as soon as practicable after being so requested by the Trustee a certificate of the relevant Issuer or, as the case may be, the relevant Guarantors signed by any two of its directors stating the number of Notes held at the date of such certificate by or on behalf of the relevant Issuer or, as the case may be, the relevant Guarantors or their respective subsidiaries.

9.13 Consolidated Net Tangible Assets: give to the Trustee at the same time as sending (i) the certificate of the relevant Issuer or the relevant Guarantor, as the case may be, referred to in Clause 9.5 and/or (ii) any notice referred to in Clause 9.2 in so far as it relates to any Event of Default or Potential Event of Default falling within Condition 10(c), (d), (e) or (h) (insofar as it relates to any of the events mentioned in relation to Condition 10(c) or (e)), a letter signed by any two of its directors specifying the amount of the relevant Consolidated Net Tangible Assets for the purposes of the Conditions.

9.14 Negative Pledge: notify the Trustee in writing immediately of the coming into existence of any Lien which would require any security to be given on any Notes or Coupons pursuant to Condition 4.

10 Remuneration and Indemnification of the Trustee

10.1 Normal Remuneration: So long as any Note is outstanding the Issuers shall pay the Trustee as remuneration for its services as Trustee such sum on such dates in each case as they may from time to time agree. Such remuneration shall accrue from day to day from the date of this Trust Deed. However, if any payment to a Noteholder or Couponholder of moneys due in respect of any Note or Coupon is improperly withheld or refused, such remuneration shall again accrue as from the date of such withholding or refusal until payment to such Noteholder or Couponholder is duly made.

10.2 Extra Remuneration: If an Event of Default or Potential Event of Default shall have occurred the Issuers and the Guarantors hereby agree that the Trustee shall be entitled to be paid additional remuneration calculated at its standard hourly rates in force from time to time. In any other case, if the Trustee finds it expedient or necessary or is requested by any Issuer to undertake duties that they both agree to be of an exceptional nature or otherwise outside the scope of the Trustee's normal duties under this Trust Deed, the relevant Issuer shall pay such additional remuneration as they may agree or, failing agreement as to any of the matters in this Clause (or as to such sums referred to in Clause 10.1), as determined by a financial institution (acting as an expert) selected by the Trustee and approved by the relevant Issuer or, failing such approval, nominated by the President for the time being of The Law Society of England and Wales. The expenses involved in such nomination and such financial institution's fee shall be borne by the relevant Issuer. The determination of such financial institution shall be conclusive and binding on the relevant Issuer, the relevant Guarantors, the Trustee, the Noteholders and the Couponholders.

10.3 Expenses: The Issuers shall also on demand by the Trustee pay or discharge all properly incurred liabilities and all costs, charges and expenses properly incurred and properly documented by the Trustee in the preparation and execution of this Trust Deed and the performance of its functions under this Trust Deed including, but not limited to, legal and travelling expenses and any stamp, documentary or other taxes or duties paid by the Trustee in connection with any legal proceedings reasonably brought or contemplated by the Trustee against any Issuer or Guarantor to enforce any provision of this Trust Deed, the Notes, the Coupons or the Talons. Such costs, charges, liabilities and expenses shall:

10.3.1 in the case of payments made by the Trustee before such demand, carry interest from the date of the demand at the rate of two per cent. per annum over the base rate of National Westminster Bank PLC on the date on which the Trustee made such payments and

10.3.2 in other cases, carry interest at such rate from 30 days after the date of the demand or (where the demand specifies that payment is to be made on an earlier date) from such earlier date.

10.4 Indemnity: Each Issuer, failing whom each Guarantor, will on demand by the Trustee indemnify it in respect of Amounts or Claims properly paid or incurred by it in acting as trustee under this Trust Deed (including (1) any Agent/Delegate Liabilities and (2) in respect of disputing or defending any Amounts or Claims made against the Trustee or any Agent/Delegate Liabilities). Each Issuer, failing whom each Guarantor, will on demand by such agent or delegate indemnify it against such Agent/Delegate Liabilities. "**Amounts or Claims**" are losses, liabilities, claims, actions, demands or properly incurred and properly documented costs or expenses and "**Agent/Delegate Liabilities**" are Amounts or Claims which the Trustee is or would be obliged to pay or reimburse to any of its agents or delegates appointed pursuant to this Trust Deed. All monies payable to the Trustee shall be made without set-off, counterclaim, deduction or withholding unless compelled by law, in which case the Issuers

shall gross up such payments to the Trustee. The Contracts (Rights of Third Parties) Act 1999 applies to this Clause 10.4.

10.5 Continuing Effect: Clauses 10.3 and 10.4 shall continue in full force and effect as regards the Trustee even if it no longer is Trustee and notwithstanding any discharge of this Trust Deed.

10.6 Consequential Loss: Notwithstanding any provision of this Trust Deed to the contrary, the Trustee shall not in any event be liable for indirect, punitive or consequential loss or special damages or other damage of any kind whatsoever (including but not limited to lost profits), whether or not foreseeable, even if the Trustee has been advised of the likelihood of such loss or damage and regardless of whether the claim for loss or damage is made in negligence, for breach of contract or otherwise.

11 Provisions supplemental to the Trustee Act 1925 and the Trustee Act 2000

11.1 Advice: The Trustee may act on the opinion or advice of, or information obtained from, any expert and shall not be responsible to anyone for any loss occasioned by so acting whether such advice is obtained or addressed to the relevant Issuer, the Trustee or any other person. Any such opinion, advice or information may be sent or obtained by letter, email or fax and the Trustee shall not be liable to anyone for acting in good faith on any opinion, advice or information purporting to be conveyed by such means even if it contains some error or is not authentic and notwithstanding any limitation of liability, monetary or otherwise contained therein. The Trustee may rely without liability to Noteholders or any other person and without further enquiry on any report, confirmation or certificate or any advice of any accountants, financial advisers, financial institution or any other expert, whether or not addressed to the Trustee and whether or not liability in relation thereto is limited by reference to a monetary cap, methodology or otherwise.

11.2 Trustee to Assume Performance: The Trustee need not notify anyone of the execution of this Trust Deed or do anything to find out if an Event of Default, Potential Event of Default, Change of Control Put Event or Change of Control has occurred or if the conditions to closing of the Sky Deutschland Acquisition set out in the Sky Deutschland SPA have not been satisfied or, if applicable, waived on or prior to the Sky Deutschland Longstop Date. Until it has actual knowledge or express written notice to the contrary, the Trustee may assume without liability and without further enquiry that no such event has occurred and that each Issuer is and the respective Guarantors are performing all their obligations under this Trust Deed, the Notes, the Coupons and the Talons.

11.3 Resolutions of Noteholders: The Trustee shall not be responsible for having acted in good faith on a resolution purporting to have been passed at a meeting of Noteholders in respect of which minutes have been made and signed or an electronic consent made in accordance with paragraph 30 of Schedule 3 even if it is later found that there was a defect in the constitution of the meeting or the passing of the resolution or that the resolution or electronic consent was not valid or binding on the Noteholders or Couponholders.

11.4 Certificate Signed by Directors: If the Trustee, in the exercise of its functions, requires to be satisfied or to have information as to any fact or the expediency of any act, it may call for and accept as sufficient evidence of that fact or the expediency of that act a certificate signed by any two directors of the relevant Issuer or relevant Guarantor as to that fact or to the effect that, in their opinion, that act is expedient and the Trustee need not call for further evidence and shall not be responsible for any loss occasioned by acting on such a certificate.

11.5 Deposit of Documents: The Trustee may appoint as custodian, on any terms, any bank or entity whose business includes the safe custody of documents or any lawyer or firm of lawyers believed by it to be of good repute and may deposit this Trust Deed and any other documents with such custodian and pay all sums due in respect thereof. The Trustee is not obliged to appoint a custodian of securities payable to bearer.

11.6 Discretion: The Trustee shall have absolute and uncontrolled discretion as to the exercise of its functions and shall not be responsible for any loss, liability, cost, claim, action, demand, expense or inconvenience that may result from their exercise or non-exercise.

11.7 Agents: Whenever it considers it expedient in the interests of the Noteholders, the Trustee may, in the conduct of its trust business, instead of acting personally, employ and pay an agent selected by it, whether or not a lawyer or other professional person, to transact or conduct, or concur in transacting or conducting, any business and to do or concur in doing all acts required to be done by the Trustee (including the receipt and payment of money).

11.8 Delegation: Whenever it considers it expedient in the interests of the Noteholders, the Trustee may delegate to any person on any terms (including power to sub-delegate) all or any of its functions.

11.9 Nominees: In relation to any asset held by it under this Trust Deed, the Trustee may appoint any person to act as its nominee on any terms.

11.10 Forged Notes: The Trustee shall not be liable to either Issuer or any Guarantor or any Noteholder or Couponholder by reason of having accepted as valid or not having rejected any Note, Certificate, Coupon or Talon purporting to be such and later found to be forged or not authentic.

11.11 Confidentiality: Unless ordered to do so by a court of competent jurisdiction, the Trustee shall not be required to disclose to any Noteholder or Couponholder any confidential financial or other information made available to the Trustee by either Issuer or any Guarantor.

11.12 Determinations Conclusive: As between itself and the Noteholders and Couponholders, the Trustee may determine all questions and doubts arising in relation to any of the provisions of this Trust Deed. Such determinations, whether made upon such a question actually raised or implied in the acts or proceedings of the Trustee, shall be conclusive and shall bind the Trustee, the Noteholders and the Couponholders.

11.13 Currency Conversion: Where it is necessary or desirable to convert any sum from one currency to another, it shall (unless otherwise provided hereby or required by law) be converted at such rate or rates, in accordance with such method and as at such date as may reasonably be specified by the Trustee but having regard to current rates of exchange, if available. Any rate, method and date so specified shall be binding on the relevant Issuer, the relevant Guarantors, the Noteholders and the Couponholders.

11.14 Events of Default: The Trustee may determine whether or not an Event of Default or Potential Event of Default is in its opinion capable of remedy and/or materially prejudicial to the interests of the Noteholders. Any such determination shall be conclusive and binding on the relevant Issuer, the relevant Guarantors, the Noteholders and the Couponholders.

11.15 Payment for and Delivery of Notes: The Trustee shall not be responsible for the receipt or application by the relevant Issuer of the proceeds of the issue of the Notes, any exchange of Notes or the delivery of Notes to the persons entitled to them.

11.16 Notes Held by the Issuer etc.: In the absence of knowledge or express notice to the contrary, the Trustee may assume without enquiry (other than requesting a certificate under Clause 9.12) that no Notes are for the time being held by or on behalf of the Issuers, the Guarantors or their respective subsidiaries.

11.17 Legal Opinions: The Trustee shall not be responsible to any person for failing to request, require or receive any legal opinion relating to any Notes or for checking or commenting upon the content of any such legal opinion.

11.18 Programme Limit: The Trustee shall not be concerned, and need not enquire, as to whether or not any Notes are issued in breach of the Programme Limit.

11.19 Responsibility for agents etc.: If the Trustee exercises reasonable care in selecting any custodian, agent, delegate or nominee appointed under this clause (an "**Appointee**"), it will not have any obligation to supervise the Appointee or be responsible for any loss, liability, cost, claim, action, demand or expense incurred by reason of the Appointee's misconduct or default or the misconduct or default of any substitute appointed by the Appointee.

11.20 Adequate Indemnity or Repayment: No provision of this Trust Deed shall require the Trustee to do anything which may (i) be illegal or contrary to applicable law or regulation; or (ii) cause it to expend or risk its own funds or otherwise incur any loss, damage, cost, charge, claim, demand, expense, judgment, action, proceeding or other liability whatsoever incurred thereby in the performance of any of its duties or in the exercise of any of its rights, powers or discretions, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or loss, damage, cost, charge, claim, demand, expense, judgment, action, proceeding or other liability whatsoever is not assured to it.

11.21 Reliance on Certification of Clearing Systems: The Trustee may call for and shall be at liberty to accept and place full reliance on as sufficient evidence thereof any certificate or other document issued by Euroclear, Clearstream, Luxembourg or any other relevant clearing system in relation to the principal amount of the Notes represented by the Global Note or Global Certificate (as applicable) standing to the account of any person or any other matter. Any such certificate or other document shall, in the absence of manifest error, be conclusive and binding for all purposes. Any such certificate or other document may comprise any form of statement or print out of electronic records provided by the relevant clearing system (including Euroclear's EUCLID or Clearstream, Luxembourg's Cedcom system) in accordance with its usual procedures and in which the holder of a particular principal or nominal amount of the Notes is clearly identified together with the amount of such holding. The Trustee shall not be liable to the Issuers, the Guarantors, any Noteholder or any other person by reason of having accepted as valid or not having rejected any certificate or other document to such effect purporting to be issued by Euroclear, Clearstream, Luxembourg or any other relevant clearing system and subsequently found to be forged or not authentic.

11.22 Rating Agencies: The Trustee shall be entitled to request that the Issuers or Guarantors obtain (but the Issuers and Guarantors shall be under no obligation to so obtain) and the Trustee shall be entitled to rely upon information, reports and confirmations provided by any Rating Agency whether addressed to the Trustee or any other person.

11.23 Right to Deduct or Withhold: Notwithstanding any other provision of this Trust Deed, the Trustee shall be entitled to make a deduction or withholding from any payment which it makes under this Trust Deed for or on account of any present or future taxes, duties or charges if and to the extent so required by any applicable law and any current or future regulations or agreements thereunder or official interpretation thereof or any law

implementing an intergovernmental approach thereto or by virtue of the relevant holder failing to satisfy any certification or other requirements in respect of the Notes, in which event the Trustee shall make such payment after such withholding or deduction has been made and shall account to the relevant authorities for the amount so withheld or deducted and shall have no obligation to gross up any payment hereunder or pay any additional amount as a result of such withholding tax. In the event of such deduction or withholding, the Trustee will promptly notify the Issuers and the Guarantors.

11.24 Not Bound to Act: The Trustee shall not be bound to take any step, action or proceedings in connection with this Trust Deed or the Notes or in relation to any obligations arising hereunder, including without prejudice to the generality of the foregoing, exercising a power, forming any opinion or employing any financial adviser where it is not satisfied that it will be indemnified and/or secured and/or prefunded to its satisfaction against all liabilities, actions, proceedings, claims and demands to which it may render itself liable and all costs, charges, damages, expenses and liabilities which may be properly incurred in connection with such action and may demand prior to taking any such steps, action or proceedings that there be paid to it in advance such sums as it reasonably considers (without prejudice to any further demand) shall be sufficient so as to indemnify and/or secure and/or prefund it.

11.25 Rating Agency Affirmation: The Trustee shall be entitled to assume, without further investigation or inquiry, for the purpose of exercising or performing any right, power, trust, authority, duty or discretion under or in relation to this Trust Deed or any other related document (including, without limitation, any consent, approval, modification, waiver, authorisation or determination), that such exercise will not be materially prejudicial to the interests of the Noteholders, if each of the Rating Agencies then rating the outstanding Notes has confirmed in writing (whether or not such confirmation is addressed to, or provides that it may be relied upon by, the Trustee) that the then current rating by it of the outstanding Notes would not be adversely affected or withdrawn in connection therewith.

11.26 Maintenance of Rating: The Trustee shall have no responsibility whatsoever to the Issuers, the Guarantors, the Noteholders or any other person for the maintenance of or failure to maintain any rating of the Notes by any Rating Agency.

12 Trustee Liability

Section 1 of the Trustee Act 2000 shall not apply to any function of the Trustee, provided that if the Trustee fails to show the degree of care and diligence required of it as trustee, nothing in this Trust Deed shall relieve or indemnify it from or against any liability that would otherwise attach to it in respect of any negligence, wilful default or fraud of which it may be guilty.

13 Waiver

The Trustee may, without the consent of the Noteholders or Couponholders and without prejudice to its rights in respect of any subsequent breach, from time to time and at any time, if in its opinion the interests of the Noteholders will not be materially prejudiced thereby, waive or authorise, on such terms as seem expedient to it, any breach or proposed breach by an Issuer or a Guarantor of this Trust Deed or the Conditions or determine that an Event of Default or Potential Event of Default shall not be treated as such provided that the Trustee shall not do so in contravention of an express direction given by an Extraordinary Resolution or a request made pursuant to Condition 10. No such direction or request shall affect a previous waiver, authorisation or

determination. Any such waiver, authorisation or determination shall be binding on the Noteholders and the Couponholders and, if the Trustee so requires, shall be notified to the Noteholders as soon as practicable.

14 Trustee not precluded from entering into contracts

The Trustee and any other person, whether or not acting for itself, may acquire, hold or dispose of any Note, Coupon, Talon or other security (or any interest therein) of an Issuer, a Guarantor or any other person, may enter into or be interested in any contract or transaction with any such person and may act on, or as depositary or agent for, any committee or body of holders of any securities of any such person in each case with the same rights as it would have had if the Trustee were not acting as Trustee and need not account for any profit.

15 Modification and Substitution

15.1 Modification: The Trustee may agree without the consent of the Noteholders or Couponholders to any modification to this Trust Deed which is, in its opinion, of a formal, minor or technical nature or to correct a manifest error. The Trustee may also so agree to any modification to this Trust Deed that is in its opinion not materially prejudicial to the interests of the Noteholders, but such power does not extend to any such modification as is mentioned in the proviso to paragraph 2 of Schedule 3.

15.2 Substitution:

15.2.1 The Trustee may, without the consent of the Noteholders or Couponholders, agree to the substitution of (i) an Issuer's successor in business or any subsidiary of an Issuer or its successor in business in place of the Issuer (or of any previous substitute under this Clause) or (ii) any Guarantor's successor in business in place of the Guarantor (or of any previous substitute under this Clause) (each, a "**Substituted Obligor**") as the principal debtor or guarantor, as applicable, under this Trust Deed, the Notes, the Coupons and the Talons provided that:

(i) a deed is executed or undertaking given by the Substituted Obligor to the Trustee, in form and manner satisfactory to the Trustee, agreeing to be bound by this Trust Deed, the Notes, the Coupons and the Talons (with consequential amendments as the Trustee may deem appropriate) as if the Substituted Obligor had been named in this Trust Deed, the Notes, the Certificates, the Coupons and the Talons as the principal debtor in place of the relevant Issuer(s) or as the relevant guarantor in place of a relevant Guarantor, as the case may be

(ii) if the Substituted Obligor is subject generally to the taxing jurisdiction of a territory or any authority of or in that territory with power to tax (the "**Substituted Territory**") other than the territory to the taxing jurisdiction of which (or to any such authority of or in which) the relevant Issuer is subject generally (the "**Issuer's Territory**"), or to which the relevant Guarantor is subject generally (the "**Guarantor's Territory**") the Substituted Obligor shall (unless the Trustee otherwise agrees) give to the Trustee an undertaking satisfactory to the Trustee in terms corresponding to Condition 8 with the substitution for the references in that Condition to the relevant Issuer's Territory or the relevant Guarantor's Territory as the case may be of references to the Substituted Territory whereupon the Trust Deed, the Notes, the Certificates, the Coupons and the Talons shall be read accordingly

(iii) if any two directors of the Substituted Obligor certify that it will be solvent immediately after such substitution, the Trustee need not have regard to the Substituted Obligor's financial condition, profits or prospects or compare them with those of the relevant Issuer or the Guarantor

(iv) the relevant Issuer, the relevant Guarantor and the Substituted Obligor comply with such other requirements as the Trustee may direct in the interests of the Noteholders

(v) (unless the relevant Guarantors' successor in business is the Substituted Obligor) the obligations of the Substituted Obligor under this Trust Deed, the Notes and the Coupons are guaranteed by the relevant Guarantor in the same terms (with consequential amendments as necessary) as the Guarantee, to the Trustee's satisfaction and

(vi) (without prejudice to the generality of sub-paragraph (i) above) the Trustee may in the event of such substitution agree, without the consent of Noteholders or Couponholders, to a change in the law governing the Trust Deed and/or the Notes, provided that such change would not in the opinion of the Trustee be materially prejudicial to the interests of the Noteholders.

15.2.2 Release of Substituted Issuer or Guarantor: An agreement by the Trustee pursuant to Clause 15.2 shall, if so expressed, release the relevant Issuer or the relevant Guarantor (or a previous substitute) from any or all of its obligations under this Trust Deed, the Notes, the Coupons and the Talons. Notice of the substitution shall be given to the Noteholders within 14 days of the execution of such documents and compliance with such requirements.

15.2.3 Completion of Substitution: On completion of the formalities set out in Clause 15.2, the Substituted Obligor shall be deemed to be named in this Trust Deed, the Notes, the Certificates, the Coupons and the Talons as the principal debtor in place of the relevant Issuer (or of any previous substitute) or as the relevant Guarantor in place of a relevant Guarantor (or of any previous substitute), as the case may be, and this Trust Deed, the Notes, the Certificates, the Coupons and the Talons shall be deemed to be amended as necessary to give effect to the substitution.

16 Appointment, Retirement and Removal of the Trustee

16.1 Appointment: Subject as provided in Clause 16.2, the Issuers have the power of appointing new trustees but no-one may be so appointed unless previously approved by an Extraordinary Resolution. A trust corporation shall at all times be a Trustee and may be the sole Trustee. Any appointment of a new Trustee shall be notified by each Issuer to the Noteholders as soon as practicable.

16.2 Retirement and Removal: Any Trustee may retire at any time on giving at least three months' written notice to the Issuers and the Guarantors without giving any reason or being responsible for any costs occasioned by such retirement and the Noteholders may by Extraordinary Resolution remove any Trustee provided that the retirement or removal of a sole trust corporation shall not be effective until a trust corporation is appointed as successor Trustee. If a sole trust corporation gives notice of retirement or an Extraordinary Resolution is passed for its removal, the Issuers shall use all reasonable endeavours to procure that another trust corporation be appointed as Trustee but if it fails to do so before the expiry of such three month notice period, the Trustee

shall have the power to appoint a new Trustee whose appointment shall be at the relevant Issuer's expense.

16.3 Co-Trustees: The Trustee may, despite Clause 16.1, by written notice to each Issuer and each Guarantor appoint anyone to act as an additional Trustee jointly with the Trustee:

16.31 if the Trustee considers the appointment to be in the interests of the Noteholders and/or the Couponholders

16.3.2 to conform with a legal requirement, restriction or condition in a jurisdiction in which a particular act is to be performed or

16.3.3to obtain a judgment or to enforce a judgment or any provision of this Trust Deed in any jurisdiction.

Subject to the provisions of this Trust Deed the Trustee may confer on any person so appointed such of its functions as it thinks fit. The Trustee may by written notice to each Issuer, each Guarantor and that person remove that person. At the Trustee's request, the Issuers and the Guarantors shall forthwith do all things as may be required to perfect such appointment or removal and each of them irrevocably appoints the Trustee as their attorney in their name and on its behalf to do so.

16.4 Competence of a Majority of Trustees: If there are more than two Trustees the majority of them shall be competent to perform the Trustee's functions provided the majority includes a trust corporation.

17 Notes held in Clearing Systems and Couponholders

17.1 Notes Held in Clearing Systems: So long as any Global Note is, or any Notes represented by a Global Certificate are, held on behalf of a clearing system, in considering the interests of Noteholders, the Trustee may have regard to any information provided to it by such clearing system or its operator as to the identity (either individually or by category) of its accountholders or participants with entitlements to any such Global Note or the Registered Notes and may consider such interests on the basis that such accountholders or participants were the holder(s) thereof.

17.2 Couponholders: No notices need be given to Couponholders. They shall be deemed to have notice of the contents of any notice given to Noteholders. Even if it has express notice to the contrary, in exercising any of its functions by reference to the interests of the Noteholders, the Trustee shall assume that the holder of each Note is the holder of all Coupons and Talons relating to it.

18 Currency Indemnity

18.1 Currency of Account and Payment: The Contractual Currency is the sole currency of account and payment for all sums payable by the relevant Issuer or the relevant Guarantors under or in connection with this Trust Deed, the Notes and the Coupons, including damages.

18.2 Extent of Discharge: An amount received or recovered in a currency other than the Contractual Currency (whether as a result of, or of the enforcement of, a judgment or order of a court of any jurisdiction, in the insolvency, winding-up or dissolution of the relevant Issuer or the relevant Guarantors or otherwise), by the Trustee or any Noteholder or Couponholder in respect of any sum expressed to be due to it from the relevant Issuer or relevant Guarantors shall only discharge the relevant Issuer and relevant Guarantors to the extent of the Contractual Currency amount that the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so).

18.3 Indemnity: If that Contractual Currency amount is less than the Contractual Currency amount expressed to be due to the recipient under this Trust Deed, the Notes or the Coupons, the relevant Issuer shall indemnify it against any loss sustained by it as a result. In any event, the relevant Issuer shall indemnify the recipient against the cost of making any such purchase.

18.4 Indemnity Separate: The indemnities in this Clause 18 and in Clause 10.4 constitute separate and independent obligations from the other obligations in this Trust Deed, shall give rise to a separate and independent cause of action, shall apply irrespective of any indulgence granted by the Trustee and/or any Noteholder or Couponholder and shall continue in full force and effect despite any judgment, order, claim or proof for a liquidated amount in respect of any sum due under this Trust Deed, the Notes and/or the Coupons or any other judgment or order.

19 Communications

19.1 Method: Each communication under this Trust Deed shall be made by electronic communication, fax or otherwise in writing. Each communication or document to be delivered to any party under this Trust Deed shall be sent to that party at the fax number, postal address or electronic address, and marked for the attention of the person (if any), from time to time designated by that party to each other party for the purpose of this Trust Deed. The initial telephone number, fax number, postal address, electronic address and person so designated by the parties under this Trust Deed are set out in the Procedures Memorandum.

19.2 Deemed Receipt: Any communication from any party to any other under this Trust Deed shall be effective, (if by fax) when the relevant delivery receipt is received by the sender, (if in writing) when delivered and (if by electronic communication) when the relevant receipt of such communication being read is given, or where no read receipt is requested by the sender, at the time of sending, provided that no delivery failure notification is received by the sender within 24 hours of sending such communication; provided that any communication which is received (or deemed to take effect in accordance with the foregoing) outside business hours or on a non-business day in the place of receipt shall be deemed to take effect at the opening of business on the next following business day in such place. Any communication delivered to any party under this Trust Deed which is to be sent by electronic communication will be written legal evidence.

19.3Communications: In no event shall the Trustee or any other entity of The Bank of New York Mellon Group be liable for any Losses arising due to the Trustee or any other entity of The Bank of New York Mellon Group receiving or transmitting any data from the Issuers, the Guarantors, any Authorised Person or any party to the transaction via any non-secure method of transmission or communication, such as, but without limitation, by facsimile or email.

The parties hereto accept that some methods of communication are not secure and the Trustee or any other entity of The Bank of New York Mellon Group shall incur no liability for receiving Instructions via any such non-secure method. The Trustee or any other entity of The Bank of New York Mellon Group is authorised to comply with and rely upon any such notice, Instructions or other communications reasonably believed by it to have been sent or given by an Authorised Person or an appropriate party to the transaction (or authorised representative therefore). The Issuers and the Guarantors or any authorised officer of the Issuers or the Guarantors shall use all reasonable endeavours to ensure that Instructions transmitted to the Trustee or any other entity of The Bank of New York Mellon Group pursuant to this Trust Deed are complete and correct. Any Instructions shall be conclusively deemed to be valid Instructions from the Issuers, the Guarantors or any

authorised officer of the Issuers or the Guarantors to the Trustee or any other entity of The Bank of New York Mellon Group for the purposes of this Trust Deed.

In this Clause, the following terms shall have the following meanings:

"**Authorised Person**" means any person who is designated in writing by the Issuers or the Guarantors from time to time to give instructions to the Trustee under the terms of this Trust Deed

"**Instructions**" means any written notices, directions or instructions received by the Trustee from an Authorised Person or from a person reasonably believed by the Trustee to be an Authorised Person

"**Losses**" means any and all claims, losses, liabilities, damages, properly incurred and properly documented costs and expenses and judgments (including properly incurred and properly documented legal fees and expenses) sustained by either party and

"**The Bank of New York Mellon Group**" means The Bank of New York Mellon Corporation and any company or other entity of which The Bank of New York Mellon Corporation is directly or indirectly a shareholder or owner. For the purposes of this Trust Deed, each branch of The Bank of New York Mellon Corporation shall be a separate member of The Bank of New York Mellon Group.

20 Governing Law

This Trust Deed and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

Schedule 1

Part A

Form of CGN Temporary Global Note

ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

irrevocably and unconditionally guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][*]**, British Sky Broadcasting Limited, Sky Subscribers Services Limited**

and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

TEMPORARY GLOBAL NOTE

Temporary Global Note No. [•]

This temporary Global Note is issued in respect of the Notes (the "**Notes**") of the Tranche and Series specified in Part A of the Second Schedule hereto of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") and guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**").

Interpretation and Definitions

References in this temporary Global Note to the "Conditions" are to the Terms and Conditions applicable to the Notes (which are in the form set out in Schedule 2 Part C to the Trust Deed (as amended or supplemented as at the Issue Date, the "**Trust Deed**") dated 5 September 2014 between the Issuer, [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], the Initial Guarantors and BNY Mellon Corporate Trustee Services Limited as trustee, as such form is supplemented and/or modified and/or superseded by the provisions of this temporary Global Note (including the supplemental definitions and any modifications or additions set out in Part A of the Second Schedule hereto), which in the event of any conflict shall prevail). Other capitalised terms used in this temporary Global Note shall have the meanings given to them in the Conditions or the Trust Deed. If the Second Schedule hereto specifies that the applicable TEFRA exemption is either "C Rules" or "not applicable", this temporary Global Note is a "C Rules Note", otherwise this temporary Global Note is a "D Rules Note".

Aggregate Nominal Amount

The aggregate nominal amount from time to time of this temporary Global Note shall be an amount equal to the aggregate nominal amount of the Notes as shall be shown by the latest entry in the fourth column of the First Schedule hereto, which shall be completed by or on behalf of the Issuing and Paying Agent upon (i) the issue of Notes represented hereby, (ii) the exchange of the whole or a part of this temporary Global Note for a corresponding interest in a permanent

Global Note or, as the case may be, for Definitive Notes or Registered Notes and/or (iii) the redemption or purchase and cancellation of Notes represented hereby, all as described below.

Promise to Pay

Subject as provided herein, the Issuer, for value received, promises to pay to the bearer of this temporary Global Note, upon presentation and (when no further payment is due in respect of this temporary Global Note) surrender of this temporary Global Note, on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the aggregate nominal amount of Notes represented by this temporary Global Note and (unless this temporary Global Note does not bear interest) to pay interest in respect of the Notes from the Interest Commencement Date in arrear at the rates, on the dates for payment, and in accordance with the methods of calculation provided for in the Conditions, save that the calculation is made in respect of the total aggregate amount of the Notes, together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

Exchange

If this temporary Global Note is an Exchangeable Bearer Note, this temporary Global Note may be exchanged in whole or from time to time in part for one or more Registered Notes in accordance with the Conditions on or after the Issue Date but before the Exchange Date referred to below by its presentation to the Issuing and Paying Agent. On or after the Exchange Date, the outstanding nominal amount of this temporary Global Note may be exchanged for Definitive Notes and Registered Notes in accordance with the next paragraph.

On or after the first day following the expiry of 40 days after the Issue Date (the "**Exchange Date**"), this temporary Global Note may be exchanged (free of charge to the holder) in whole or (in the case of a D Rules Note only) from time to time in part by its presentation and, on exchange in full, surrender to or to the order of the Issuing and Paying Agent for interests in a permanent Global Note or, if so specified in the Second Schedule hereto, for Definitive Notes and (if this temporary Global Note is an Exchangeable Bearer Note), in each case, for Registered Notes in an aggregate nominal amount equal to the nominal amount of this temporary Global Note submitted for exchange provided that, in the case of any part of a D Rules Note submitted for exchange for a permanent Global Note or Definitive Notes, there shall have been Certification with respect to such nominal amount submitted for such exchange dated no earlier than the Exchange Date.

"**Certification**" means the presentation to the Issuing and Paying Agent of a certificate or certificates with respect to one or more interests in this temporary Global Note, signed by Euroclear or Clearstream, Luxembourg, substantially to the effect set out in Schedule 4 to the Agency Agreement to the effect that it has received a certificate or certificates substantially to the effect set out in Schedule 3 to the Agency Agreement with respect thereto and that no contrary advice as to the contents thereof has been received by Euroclear or Clearstream, Luxembourg, as the case may be.

Upon the whole or a part of this temporary Global Note being exchanged for a permanent Global Note, such permanent Global Note shall be exchangeable in accordance with its terms for Definitive Notes or Registered Notes.

The Definitive Notes or the Certificates representing the Registered Notes for which this temporary Global Note or a permanent Global Note may be exchangeable shall be duly executed and authenticated, shall, in the case of Definitive Notes, have attached to them all Coupons (and, where appropriate, Talons) in respect of interest that have not already been paid on this temporary Global Note or the permanent Global Note, as the case may be, shall be security printed or, in the case of Certificates, printed in accordance with applicable legal and stock exchange requirements and shall be substantially in the form set out in the Schedules to the Trust Deed as supplemented and/or modified and/or

superseded by the terms of the Second Schedule hereto. Certificates issued upon exchange for Registered Notes shall not be Global Certificates unless the holder so requests and certifies to the Issuing and Paying Agent that it is, or is acting as a nominee for, Clearstream, Luxembourg, Euroclear and/or any Alternative Clearing System.

On any exchange of a part of this temporary Global Note for an equivalent interest in a permanent Global Note, for Definitive Notes or for Registered Notes, as the case may be, the portion of the nominal amount hereof so exchanged shall be endorsed by or on behalf of the Issuing and Paying Agent in the First Schedule hereto, whereupon the nominal amount hereof shall be reduced for all purposes by the amount so exchanged and endorsed.

Benefit of Conditions

Except as otherwise specified herein, this temporary Global Note is subject to the Conditions and the Trust Deed and, until the whole of this temporary Global Note is exchanged for equivalent interests in a permanent Global Note, for Definitive Notes or for Registered Notes, as the case may be, the holder of this temporary Global Note shall in all respects be entitled to the same benefits as if it were the holder of the permanent Global Note (or the relevant part of it) or the Definitive Notes, as the case may be, for which it may be exchanged as if such permanent Global Note or Definitive Notes had been issued on the Issue Date.

Payments

No person shall be entitled to receive any payment in respect of the Notes represented by this temporary Global Note that falls due on or after the Exchange Date unless, upon due presentation of this temporary Global Note for exchange, delivery of (or, in the case of a subsequent exchange, due endorsement of) a permanent Global Note or delivery of Definitive Notes or Certificates, as the case may be, is improperly withheld or refused by or on behalf of the Issuer.

Payments due in respect of a D Rules Note before the Exchange Date shall only be made in relation to such nominal amount of this temporary Global Note with respect to which there shall have been Certification dated no earlier than such due date for payment.

Any payments that are made in respect of this temporary Global Note shall be made to its holder against presentation and (if no further payment falls to be made on it) surrender of it at the specified office of the Issuing and Paying Agent or of any other Paying Agent provided for in the Conditions. If any payment in full of principal is made in respect of any Note represented by this temporary Global Note, the portion of this temporary Global Note representing such Note shall be cancelled and the amount so cancelled shall be endorsed by or on behalf of the Issuing and Paying Agent in the First Schedule hereto (such endorsement being prima facie evidence that the payment in question has been made) whereupon the nominal amount hereof shall be reduced for all purposes by the amount so cancelled and endorsed. If any other payments are made in respect of the Notes represented by this temporary Global Note, a record of each such payment shall be endorsed by or on behalf of the Issuing and Paying Agent on an additional schedule hereto (such endorsement being *prima facie* evidence that the payment in question has been made). Condition 7(e)(vii) and Condition 8(d) will apply to the Definitive Notes only.

For the purposes of any payments made in respect of this temporary Global Note, the words “in the relevant place of presentation” shall not apply in the definition of “business day” in Condition 7(h).

Cancellation

Cancellation of any Note represented by this temporary Global Note that is required by the Conditions to be cancelled (other than upon its redemption) shall be effected by reduction in the nominal amount of this temporary Global Note representing such Note on its presentation to or to the order of the Issuing and Paying Agent for endorsement in the First Schedule hereto, whereupon the nominal amount hereof shall be reduced for all purposes by the amount so cancelled and endorsed.

Notices

Notices required to be given in respect of the Notes represented by this temporary Global Note may be given by their being delivered (so long as this temporary Global Note is held on behalf of Euroclear and Clearstream, Luxembourg and/or any Alternative Clearing System) to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be, or otherwise to the holder of this temporary Global Note, rather than by publication as required by the Conditions.

No provision of this temporary Global Note shall alter or impair the obligation of the Issuer and the Guarantors to pay the principal and premium of and interest on the Notes when due in accordance with the Conditions and the Guarantee.

This temporary Global Note shall not be valid or become obligatory for any purpose until authenticated by or on behalf of the Issuing and Paying Agent.

This temporary Global Note and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

In witness whereof the Issuer has caused this temporary Global Note to be duly signed on its behalf.

Dated as of the Issue Date.

[BSKYB FINANCE UK plc/BRITISH SKY BROADCASTING GROUP plc]*

By:

CERTIFICATE OF AUTHENTICATION

This temporary Global Note is authenticated without warranty, recourse or liability

by or on behalf of the Issuing and Paying Agent.

THE BANK OF NEW YORK MELLON

as Issuing and Paying Agent

By:

Authorised Signatory

For the purposes of authentication only.

Schedule 1

Part B

Form of CGN Permanent Global Note

ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

unconditionally and irrevocably guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][*]**,**

British Sky Broadcasting Limited, Sky Subscribers Services Limited and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

PERMANENT GLOBAL NOTE

Permanent Global Note No. [•]

This permanent Global Note is issued in respect of the Notes (the "**Notes**") of the Tranche(s) and Series specified in Part A of the Third Schedule hereto of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") and guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**").

Interpretation and Definitions

References in this permanent Global Note to the "Conditions" are to the Terms and Conditions applicable to the Notes (which are in the form set out in Schedule 2 Part C to the Trust Deed (as amended or supplemented as at the Issue Date, the "**Trust Deed**") dated 5 September 2014 between the Issuer, [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], the Initial Guarantors and BNY Mellon Corporate Trustee Services Limited as trustee, as such form is supplemented and/or modified and/or superseded by the provisions of this permanent Global Note (including the supplemental definitions and any modifications or additions set out in Part A of the Third Schedule hereto), which in the event of any conflict shall prevail). Other capitalised terms used in this permanent Global Note shall have the meanings given to them in the Conditions or the Trust Deed.

Aggregate Nominal Amount

The aggregate nominal amount from time to time of this permanent Global Note shall be an amount equal to the aggregate nominal amount of the Notes as shall be shown by the latest entry in the fourth column of the First Schedule hereto, which shall be completed by or on behalf of the Issuing and Paying Agent upon (i) the exchange of the whole or a part of the temporary Global Note initially representing the Notes for a corresponding interest herein (in the case of Notes represented by a temporary Global Note upon issue), (ii) the issue of the Notes represented hereby (in the case of Notes represented by this permanent Global Note upon issue), (iii) the exchange of the whole or, where the

limited circumstances so permit, a part of this permanent Global Note for Definitive Notes or Registered Notes and/or (iv) the redemption or purchase and cancellation of Notes represented hereby, all as described below.

Promise to Pay

Subject as provided herein, the Issuer, for value received, hereby promises to pay to the bearer of this permanent Global Note, upon presentation and (when no further payment is due in respect of this permanent Global Note) surrender of this permanent Global Note, on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the aggregate nominal amount of Notes represented by this permanent Global Note and (unless this permanent Global Note does not bear interest) to pay interest in respect of the Notes from the Interest Commencement Date in arrear at the rates, on the dates for payment, and in accordance with the methods of calculation provided for in the Conditions, save that the calculation is made in respect of the total aggregate amount of the Notes, together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

Exchange

This permanent Global Note is exchangeable (free of charge to the holder) on or after the Exchange Date in whole but not, except as provided in the next paragraph, in part for the Definitive Notes or (if this permanent Global Note is an Exchangeable Bearer Note) Registered Notes represented by the Certificates described below:

1 if this permanent Global Note is an Exchangeable Bearer Note, by the holder hereof giving notice to the Issuing and Paying Agent of its election to exchange the whole or a part of this permanent Global Note for Registered Notes or

2 if this permanent Global Note is held on behalf of Euroclear or Clearstream, Luxembourg and/or an Alternative Clearing System and any such clearing system is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or does in fact do so.

This permanent Global Note is exchangeable in part (provided, however, that if this permanent Global Note is held by or on behalf of Euroclear and/or Clearstream, Luxembourg, the rules of Euroclear and/or Clearstream, Luxembourg, as the case may be, so permit) if this permanent Global Note is an Exchangeable Bearer Note and the part hereof submitted for exchange is to be exchanged for Registered Notes.

"**Exchange Date**" means a day falling not less than 60 days, or in the case of an exchange for Registered Notes 5 days, after that on which the notice requiring exchange is given and on which banks are open for business in the city in which the specified office of the Issuing and Paying Agent is located and, except in the case of exchange pursuant to 2 above, in the cities in which Euroclear and Clearstream, Luxembourg or, if relevant, the Alternative Clearing System, are located.

Any such exchange may be effected on or after an Exchange Date by the holder of this permanent Global Note surrendering this permanent Global Note or, in the case of a partial exchange, presenting it for endorsement to or to the order of the Issuing and Paying Agent. In exchange for this permanent Global Note, or part thereof to be exchanged, the Issuer shall deliver, or procure the delivery of, duly executed and authenticated Definitive Notes and/or (if this permanent Global Note is an Exchangeable Bearer Note) Certificates in an aggregate nominal amount equal to the

nominal amount of this permanent Global Note submitted for exchange (if appropriate, having attached to them all Coupons (and, where appropriate, Talons) in respect of interest that have not already been paid on this permanent Global Note), security printed or, in the case of Certificates, printed in accordance with any applicable legal and stock exchange requirements and substantially in the form set out in Schedule 2 to the Trust Deed as supplemented and/or modified and/or superseded by the terms of the Third Schedule hereto. Certificates issued upon exchange for Registered Notes shall not be Global Certificates unless the holder so requests and certifies to the Issuing and Paying Agent that it is, or is acting as a nominee for, Clearstream, Luxembourg, Euroclear and/or an Alternative Clearing System.

On any exchange of a part of this permanent Global Note the portion of the nominal amount hereof so exchanged shall be endorsed by or on behalf of the Issuing and Paying Agent in the First Schedule hereto, whereupon the nominal amount hereof shall be reduced for all purposes by the amount so exchanged and endorsed.

Benefit of Conditions

Except as otherwise specified herein, this permanent Global Note is subject to the Conditions and the Trust Deed and, until the whole of this permanent Global Note is exchanged for Definitive Notes or Registered Notes, the holder of this permanent Global Note shall in all respects be entitled to the same benefits as if it were the holder of the Definitive Notes for which it may be exchanged and as if such Definitive Notes had been issued on the Issue Date.

Payments

No person shall be entitled to receive any payment in respect of the Notes represented by this permanent Global Note that falls due after an Exchange Date for such Notes, unless upon due presentation of this permanent Global Note for exchange, delivery of Definitive Notes or Certificates is improperly withheld or refused by or on behalf of the Issuer or the Issuer does not perform or comply with any one or more of what are expressed to be its obligations under any Definitive Notes.

Payments in respect of this permanent Global Note shall be made to its holder against presentation and (if no further payment falls to be made on it) surrender of it at the specified office of the Issuing and Paying Agent or of any other Paying Agent provided for in the Conditions. A record of each such payment shall be endorsed on the First or Second Schedule hereto, as appropriate, by the Issuing and Paying Agent or by the relevant Paying Agent, for and on behalf of the Issuing and Paying Agent, which endorsement shall (until the contrary is proved) be *prima facie* evidence that the payment in question has been made. Condition 7(e)(vii) and Condition 8(d) will apply to the Definitive Notes only.

For the purpose of any payments made in respect of this permanent Global Note, the words “in the relevant place of presentation” shall not apply in the definition of “business day” in Condition 7(h).

Prescription

Claims in respect of principal and interest (as each is defined in the Conditions) in respect of this permanent Global Note shall become void unless it is presented for payment within a period of 10 years (in the case of principal) and 5 years (in the case of interest) from the appropriate Relevant Date.

Meetings

For the purposes of any meeting of Noteholders, the holder of this permanent Global Note shall (unless this permanent Global Note represents only one Note) be treated as two persons for the purposes of any quorum requirements of a meeting of Noteholders and, at any such meeting, as having one vote in respect of each integral currency unit of the Specified Currency of the Notes.

Cancellation

Cancellation of any Note represented by this permanent Global Note that is required by the Conditions to be cancelled (other than upon its redemption) shall be effected by reduction in the nominal amount of this permanent Global Note representing such Note on its presentation to or to the order of the Issuing and Paying Agent for endorsement in the First Schedule hereto, whereupon the nominal amount hereof shall be reduced for all purposes by the amount so cancelled and endorsed.

Purchase

Notes may only be purchased by the Issuer, the Guarantors or any of their respective subsidiaries if they are purchased together with the right to receive all future payments of interest thereon.

Issuer's Options

Any option of the Issuer provided for in the Conditions shall be exercised by the Issuer giving notice to the Noteholders within the time limits set out in and containing the information required by the Conditions, except that the notice shall not be required to contain the serial numbers of Notes drawn in the case of a partial exercise of an option and accordingly no drawing of Notes shall be required.

Noteholders' Options

Any option of the Noteholders provided for in the Conditions may be exercised by the holder of this permanent Global Note giving notice to the Issuing and Paying Agent within the time limits relating to the deposit of Notes with a Paying Agent set out in the Conditions substantially in the form of the notice available from any Paying Agent, except that the notice shall not be required to contain the certificate numbers of the Notes in respect of which the option has been exercised, and stating the nominal amount of Notes in respect of which the option is exercised and at the same time presenting this permanent Global Note to the Issuing and Paying Agent, or to a Paying Agent acting on behalf of the Issuing and Paying Agent, for notation accordingly in the Fourth Schedule hereto.

Notices

Notices required to be given in respect of the Notes represented by this permanent Global Note may be given by their being delivered (so long as this permanent Global Note is held on behalf of Euroclear, Clearstream, Luxembourg and/or any Alternative Clearing System) to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be, or otherwise to the holder of this permanent Global Note, rather than by publication as required by the Conditions.

Negotiability

This permanent Global Note is a bearer document and negotiable and accordingly:

1. is freely transferable by delivery and such transfer shall operate to confer upon the transferee all rights and benefits appertaining hereto and to bind the transferee with all obligations appertaining hereto pursuant to the Conditions
2. the holder of this permanent Global Note is and shall be absolutely entitled as against all previous holders to receive all amounts by way of amounts payable upon redemption, interest or otherwise payable in respect of this permanent Global Note and the Issuer has waived against such holder and any previous holder of this permanent Global Note all rights of set-off or counterclaim that would or might otherwise be available to it in respect of the obligations evidenced by this Global Note and
3. payment upon due presentation of this permanent Global Note as provided herein shall operate as a good discharge against such holder and all previous holders of this permanent Global Note.

No provisions of this permanent Global Note shall alter or impair the obligation of the Issuer and the Guarantors to pay the principal and premium of and interest on the Notes when due in accordance with the Conditions and the Guarantee.

This permanent Global Note shall not be valid or become obligatory for any purpose until authenticated by or on behalf of the Issuing and Paying Agent.

This permanent Global Note and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

In witness whereof the Issuer has caused this permanent Global Note to be duly signed on its behalf.

Dated as of the Issue Date.

[BSKYB FINANCE UK plc/BRITISH SKY BROADCASTING GROUP plc]*

By:

CERTIFICATE OF AUTHENTICATION

This permanent Global Note is authenticated without warranty, recourse or liability

by or on behalf of the Issuing and Paying Agent.

THE BANK OF NEW YORK MELLON

as Issuing and Paying Agent

By:

Authorised Signatory

For the purposes of authentication only.

Schedule 1

Part C

Form of NGN Temporary Global Note

ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

irrevocably and unconditionally guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][*]**, British Sky Broadcasting Limited, Sky Subscribers Services Limited**

and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

TEMPORARY GLOBAL NOTE

Temporary Global Note No. [•]

This temporary Global Note is issued in respect of the Notes (the "**Notes**") of the Tranche and Series specified in the Schedule hereto of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") and guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**").

Interpretation and Definitions

References in this temporary Global Note to the "Conditions" are to the Terms and Conditions applicable to the Notes (which are in the form set out in Schedule 2 Part C to the Trust Deed (as amended or supplemented as at the Issue Date, the "**Trust Deed**") dated 5 September 2014 between the Issuer, [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], the Initial Guarantors and BNY Mellon Corporate Trustee Services Limited as trustee, as such form is supplemented and/or modified and/or superseded by the provisions of this temporary Global Note (including the supplemental definitions and any modifications or additions set out in the Schedule hereto), which in the event of any conflict shall prevail). Other capitalised terms used in this temporary Global Note shall have the meanings given to them in the Conditions or the Trust Deed. If the Schedule hereto specifies that the applicable TEFRA exemption is either "C Rules" or "not applicable", this temporary Global Note is a "C Rules Note", otherwise this temporary Global Note is a "D Rules Note".

Aggregate Nominal Amount

The aggregate nominal amount from time to time of this temporary Global Note shall be an amount equal to the aggregate nominal amount of the Notes from time to time entered in the records of both Euroclear and Clearstream, Luxembourg (together the "**relevant Clearing Systems**"), which shall be completed and/or amended, as the case may be, upon (i) the issue of Notes represented hereby, (ii) the exchange of the whole or a part of this temporary Global Note for a corresponding interest recorded in the records of the relevant Clearing Systems in a permanent Global Note or, as the case may be, for Definitive Notes or (if this temporary Global Note is an Exchangeable Bearer

Note) Registered Notes and/or (iii) the redemption or purchase and cancellation of Notes represented hereby, all as described below.

The records of the relevant Clearing Systems (which expression in this temporary Global Note means the records that each relevant Clearing System holds for its customers which reflect the amount of such customers' interests in the Notes) shall be conclusive evidence of the nominal amount of the Notes represented by this temporary Global Note and, for these purposes, a statement issued by a relevant Clearing System (which statement shall be made available to the bearer upon request) stating the nominal amount of Notes represented by the temporary Global Note at any time shall be conclusive evidence of the records of the relevant Clearing Systems at that time.

Promise to Pay

Subject as provided herein, the Issuer, for value received, promises to pay to the bearer of this temporary Global Note, upon presentation and (when no further payment is due in respect of this temporary Global Note) surrender of this temporary Global Note, on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the aggregate nominal amount of Notes represented by this temporary Global Note and (unless this temporary Global Note does not bear interest) to pay interest in respect of the Notes from the Interest Commencement Date in arrear at the rates, on the dates for payment, and in accordance with the methods of calculation provided for in the Conditions, save that the calculation is made in respect of the total aggregate amount of the Notes, together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

Exchange

If this temporary Global Note is an Exchangeable Bearer Note, this temporary Global Note may be exchanged in whole or from time to time in part for one or more Registered Notes in accordance with the Conditions on or after the Issue Date but before the Exchange Date referred to below by its presentation to the Issuing and Paying Agent. On or after the Exchange Date, the outstanding nominal amount of this temporary Global Note may be exchanged for Definitive Notes and Registered Notes in accordance with the next paragraph.

On or after the first day following the expiry of 40 days after the Issue Date (the "**Exchange Date**"), this temporary Global Note may be exchanged (free of charge to the holder) in whole or (in the case of a D Rules Note only) from time to time in part by its presentation and, on exchange in full, surrender to or to the order of the Issuing and Paying Agent for interests recorded in the records of the relevant Clearing Systems in a permanent Global Note or, if so specified in the Schedule hereto, for Definitive Notes and (if this temporary Global Note is an Exchangeable Bearer Note), in each case, for Registered Notes in an aggregate nominal amount equal to the nominal amount of this temporary Global Note submitted for exchange provided that, in the case of any part of a D Rules Note submitted for exchange for interests recorded in the records of the relevant Clearing Systems in a permanent Global Note or Definitive Notes, there shall have been Certification with respect to such nominal amount submitted for such exchange dated no earlier than the Exchange Date.

"**Certification**" means the presentation to the Issuing and Paying Agent of a certificate or certificates with respect to one or more interests in this temporary Global Note, signed by Euroclear or Clearstream, Luxembourg, substantially to the effect set out in Schedule 4 to the Agency Agreement to the effect that it has received a certificate or certificates substantially to the effect set out in Schedule 3 to the Agency Agreement with respect thereto and that no contrary advice as to the contents thereof has been received by Euroclear or Clearstream, Luxembourg, as the case may be.

Upon the whole or a part of this temporary Global Note being exchanged for a permanent Global Note, such permanent Global Note shall be exchangeable in accordance with its terms for Definitive Notes or Registered Notes.

The Definitive Notes or the Certificates representing the Registered Notes for which this temporary Global Note or a permanent Global Note may be exchangeable shall be duly executed and authenticated, shall, in the case of Definitive Notes, have attached to them all Coupons (and, where appropriate, Talons) in respect of interest that have not already been paid on this temporary Global Note or the permanent Global Note, as the case may be, shall be security printed or, in the case of Certificates, printed in accordance with applicable legal and stock exchange requirements and shall be substantially in the form set out in the Schedules to the Trust Deed as supplemented and/or modified and/or superseded by the terms of the Schedule hereto. Certificates issued upon exchange for Registered Notes shall not be Global Certificates unless the holder so requests and certifies to the Issuing and Paying Agent that it is, or is acting as a nominee for, Clearstream, Luxembourg, Euroclear and/or any Alternative Clearing System.

On any exchange of a part of this temporary Global Note for an equivalent interest recorded in the records of the relevant Clearing Systems in a permanent Global Note, for Definitive Notes or for Registered Notes, as the case may be, the Issuer shall procure that details of the portion of the nominal amount hereof so exchanged shall be entered *pro rata* in the records of the relevant Clearing Systems and upon any such entry being made, the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this temporary Global Note shall be reduced by an amount equal to such portion so exchanged.

Benefit of Conditions

Except as otherwise specified herein, this temporary Global Note is subject to the Conditions and the Trust Deed and, until the whole of this temporary Global Note is exchanged for equivalent interests in a permanent Global Note, for Definitive Notes or for Registered Notes, as the case may be, the holder of this temporary Global Note shall in all respects be entitled to the same benefits as if it were the holder of the permanent Global Note (or the relevant part of it) or the Definitive Notes, as the case may be, for which it may be exchanged as if such permanent Global Note or Definitive Notes had been issued on the Issue Date.

Payments

No person shall be entitled to receive any payment in respect of the Notes represented by this temporary Global Note that falls due on or after the Exchange Date unless, upon due presentation of this temporary Global Note for exchange, delivery of (or, in the case of a subsequent exchange, a corresponding entry being recorded in the records of the relevant Clearing Systems) a permanent Global Note or delivery of Definitive Notes or Certificates, as the case may be, is improperly withheld or refused by or on behalf of the Issuer or the Issuer does not perform or comply with any one or more of what are expressed to be its obligations under any Definitive Note.

Payments due in respect of a D Rules Note before the Exchange Date shall only be made in relation to such nominal amount of this temporary Global Note with respect to which there shall have been Certification dated no earlier than such due date for payment.

Any payments that are made in respect of this temporary Global Note shall be made to its holder against presentation and (if no further payment falls to be made on it) surrender of it at the specified office of the Issuing and Paying Agent or of any other Paying Agent provided for in the Conditions and each payment so made will discharge the Issuer’s obligations in respect thereof. Any failure to make the entries in the records of the relevant Clearing Systems referred to herein shall not affect such discharge. If any payment in full or in part of principal is made in respect of any Note represented by this temporary Global Note the Issuer shall procure that details of such payment shall be entered *pro rata* in the records of the relevant Clearing Systems and, upon any such entry being made, the nominal amount of the

Notes recorded in the records of the relevant Clearing Systems and represented by this temporary Global Note shall be reduced by the aggregate nominal amount of the Notes so redeemed. If any other payments are made in respect of the Notes represented by this temporary Global Note, the Issuer shall procure that a record of each such payment shall be entered *pro rata* in the records of the relevant Clearing Systems. Condition 7(e)(vii) and Condition 8(d) will apply to the Definitive Notes only.

For the purposes of any payments made in respect of this temporary Global Note, the words “in the relevant place of presentation” shall not apply in the definition of “business day” in Condition 7(h).

Cancellation

On cancellation of any Note represented by this temporary Global Note that is required by the Conditions to be cancelled (other than upon its redemption), the Issuer shall procure that details of such cancellation shall be entered *pro rata* in the records of the relevant Clearing systems and, upon any such entry being made, the nominal amount of the Note recorded in the records of the relevant Clearing Systems and represented by this temporary Global Note shall be reduced by the aggregate nominal amount of the Notes so cancelled.

Notices

Notices required to be given in respect of the Notes represented by this temporary Global Note may be given by their being delivered (so long as this temporary Global Note is held on behalf of Euroclear and/or Clearstream, Luxembourg and/or any Alternative Clearing System) to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be, or otherwise to the holder of this temporary Global Note, rather than by publication as required by the Conditions.

No provision of this temporary Global Note shall alter or impair the obligation of the Issuer and the Guarantors to pay the principal and premium of and interest on the Notes when due in accordance with the Conditions and the Guarantee.

This temporary Global Note shall not be valid or become obligatory for any purpose until authenticated by or on behalf of the Issuing and Paying Agent and effectuated by the entity appointed as Common Safekeeper by the relevant Clearing Systems.

This temporary Global Note and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

In witness whereof the Issuer has caused this temporary Global Note to be duly signed on its behalf.

Dated as of the Issue Date.

[BSKYB FINANCE UK plc/BRITISH SKY BROADCASTING GROUP plc]*

By:

CERTIFICATE OF AUTHENTICATION

This temporary Global Note is authenticated without warranty, recourse or liability

by or on behalf of the Issuing and Paying Agent.

THE BANK OF NEW YORK MELLON

as Issuing and Paying Agent

By:

Authorised Signatory

For the purposes of authentication only.

Effectuation

This temporary Global Note

is effectuated by or on behalf of the Common Safekeeper.

[COMMON SAFEKEEPER]

as Common Safekeeper

By:

Authorised Signatory

For the purposes of effectuation only.

Schedule 1

Part D

Form of NGN Permanent Global Note

ANY UNITED STATES PERSON WHO HOLDS THIS OBLIGATION WILL BE SUBJECT TO LIMITATIONS UNDER THE UNITED STATES INCOME TAX LAWS, INCLUDING THE LIMITATIONS PROVIDED IN SECTIONS 165(j) AND 1287(a) OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

unconditionally and irrevocably guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][*]**,**

British Sky Broadcasting Limited, Sky Subscribers Services Limited and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

PERMANENT GLOBAL NOTE

Permanent Global Note No. [•]

This permanent Global Note is issued in respect of the Notes (the "**Notes**") of the Tranche(s) and Series specified in the Schedule hereto of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") and guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**").

Interpretation and Definitions

References in this permanent Global Note to the "Conditions" are to the Terms and Conditions applicable to the Notes (which are in the form set out in Schedule 2 Part C to the Trust Deed (as amended or supplemented as at the Issue Date, the "**Trust Deed**") dated 5 September 2014 between the Issuer, [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], the Initial Guarantors and BNY Mellon Corporate Trustee Services Limited as trustee, as such form is supplemented and/or modified and/or superseded by the provisions of this permanent Global Note (including the supplemental definitions and any modifications or additions set out in the Schedule hereto), which in the event of any conflict shall prevail). Other capitalised terms used in this permanent Global Note shall have the meanings given to them in the Conditions or the Trust Deed.

Aggregate Nominal Amount

The aggregate nominal amount from time to time of this permanent Global Note shall be an amount equal to the aggregate nominal amount of the Notes from time to time entered in the records of both Euroclear and Clearstream, Luxembourg (together, the "**relevant Clearing Systems**"), which shall be completed and/or amended as the case may be upon (i) the exchange of the whole or a part of the interests recorded in the records of the relevant Clearing Systems in the temporary Global Note initially representing the Notes for a corresponding interest herein (in the case of Notes represented by a temporary Global Note upon issue), (ii) the issue of the Notes represented hereby (in the case of Notes represented by this permanent Global Note upon issue), (iii) the exchange of the whole or, where the limited circumstances so permit, a part of this permanent Global Note for Definitive Notes or (if this permanent Global

Note is an Exchangeable Bearer Note) Registered Notes and/or (iv) the redemption or purchase and cancellation of Notes represented hereby, all as described below.

The records of the relevant Clearing Systems (which expression in this permanent Global Note means the records that each relevant Clearing System holds for its customers which reflect the amount of such customers' interests in the Notes) shall be conclusive evidence of the nominal amount of the Notes represented by this permanent Global Note and, for these purposes, a statement issued by a relevant Clearing System (which statement shall be made available to the bearer upon request) stating the nominal amount of Notes represented by this permanent Global Note at any time shall be conclusive evidence of the records of the relevant Clearing System at that time.

Promise to Pay

Subject as provided herein, the Issuer, for value received, hereby promises to pay to the bearer of this permanent Global Note, upon presentation and (when no further payment is due in respect of this permanent Global Note) surrender of this permanent Global Note on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the aggregate nominal amount of Notes represented by this permanent Global Note and (unless this permanent Global Note does not bear interest) to pay interest in respect of the Notes from the Interest Commencement Date in arrear at the rates, on the dates for payment, and in accordance with the methods of calculation provided for in the Conditions, save that the calculation is made in respect of the total aggregate amount of the Notes, together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

Exchange

This permanent Global Note is exchangeable (free of charge to the holder) on or after the Exchange Date in whole but not, except as provided in the next paragraph, in part for the Definitive Notes or (if this permanent Global Note is an Exchangeable Bearer Note) Registered Notes represented by the Certificates described below:

1. if this permanent Global Note is an Exchangeable Bearer Note, by the holder hereof giving notice to the Issuing and Paying Agent of its election to exchange the whole or a part of this permanent Global Note for Registered Notes or
2. if this permanent Global Note is held on behalf of Euroclear or Clearstream, Luxembourg and/or an Alternative Clearing System and any such clearing system is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or does in fact do so.

This permanent Global Note is exchangeable in part (provided, however, that if this permanent Global Note is held by or on behalf of Euroclear and/or Clearstream, Luxembourg, the rules of Euroclear and/or Clearstream, Luxembourg, as the case may be, so permit) if this permanent Global Note is an Exchangeable Bearer Note and the part hereof submitted for exchange is to be exchanged for Registered Notes.

"**Exchange Date**" means a day falling not less than 60 days, or in the case of an exchange for Registered Notes 5 days, after that on which the notice requiring exchange is given and on which banks are open for business in the city in which the specified office of the Issuing and Paying Agent is located and, except in the case of exchange pursuant to 2 above, in the cities in which Euroclear and Clearstream, Luxembourg or, if relevant, the Alternative Clearing System, are located.

Any such exchange may be effected on or after an Exchange Date by the holder of this permanent Global Note surrendering this permanent Global Note or, in the case of a partial exchange, presenting it to or to the order of the Issuing and Paying Agent. In exchange for this permanent Global Note, or part thereof to be exchanged, the Issuer shall deliver, or procure the delivery of, duly executed and authenticated Definitive Notes and/or (if this permanent Global Note is an Exchangeable Bearer Note) Certificates in an aggregate nominal amount equal to the nominal amount of this permanent Global Note submitted for exchange (if appropriate, having attached to them all Coupons (and, where appropriate, Talons) in respect of interest that have not already been paid on this permanent Global Note), security printed or, in the case of Certificates, printed in accordance with any applicable legal and stock exchange requirements and substantially in the form set out in the Schedules to the Trust Deed as supplemented and/or modified and/or superseded by the terms of the Schedule hereto. Certificates issued upon exchange for Registered Notes shall not be Global Certificates unless the holder so requests and certifies to the Issuing and Paying Agent that it is, or is acting as a nominee for, Clearstream, Luxembourg, Euroclear and/or an Alternative Clearing System.

On any exchange of a part of this permanent Global Note, the Issuer shall procure that the portion of the nominal amount hereof so exchanged shall be entered *pro rata* in the records of the relevant Clearing Systems and upon any such entry being made, the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this permanent Global Note shall be reduced by an amount equal to such portion so exchanged.

Benefit of Conditions

Except as otherwise specified herein, this permanent Global Note is subject to the Conditions and the Trust Deed and, until the whole of this permanent Global Note is exchanged for Definitive Notes or Registered Notes, the holder of this permanent Global Note shall in all respects be entitled to the same benefits as if it were the holder of the Definitive Notes for which it may be exchanged and as if such Definitive Notes had been issued on the Issue Date.

Payments

No person shall be entitled to receive any payment in respect of the Notes represented by this permanent Global Note that falls due after an Exchange Date for such Notes, unless upon due presentation of this permanent Global Note for exchange, delivery of Definitive Notes or Certificates is improperly withheld or refused by or on behalf of the Issuer or the Issuer does not perform or comply with any one or more of what are expressed to be its obligations under any Definitive Notes.

Payments in respect of this permanent Global Note shall be made to its holder against presentation and (if no further payment falls to be made on it) surrender of it at the specified office of the Issuing and Paying Agent or of any other Paying Agent provided for in the Conditions and each payment so made will discharge the Issuer's obligations in respect thereof. Any failure to make the entries in the records of the relevant Clearing Systems referred to herein shall not affect such discharge. The Issuer shall procure that details of each such payment shall be entered *pro rata* in the records of the relevant Clearing Systems and in the case of any payment of principal and upon any such entry being made, the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this permanent Global Note shall be reduced by the aggregate nominal amount of the Notes so redeemed. Condition 7(e)(vii) and Condition 8(d) will apply to the Definitive Notes only.

For the purpose of any payments made in respect of this permanent Global Note, the words "in the relevant place of presentation" shall not apply in the definition of "business day" in Condition 7(h).

Prescription

Claims in respect of principal and interest (as each is defined in the Conditions) in respect of this permanent Global Note shall become void unless it is presented for payment within a period of 10 years (in the case of principal) and 5 years (in the case of interest) from the appropriate Relevant Date.

Meetings

For the purposes of any meeting of Noteholders, the holder of this permanent Global Note shall (unless this permanent Global Note represents only one Note) be treated as two persons for the purposes of any quorum requirements of a meeting of Noteholders and, at any such meeting, as having one vote in respect of each integral currency unit of the Specified Currency of the Notes.

Cancellation

On cancellation of any Note represented by this permanent Global Note that is required by the Conditions to be cancelled (other than upon its redemption), the Issuer shall procure that details of such cancellation shall be entered *pro rata* in the records of the relevant Clearing Systems and, upon any such entry being made, the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this permanent Global Note shall be reduced by the aggregate nominal amount of the Notes so cancelled.

Purchase

Notes may only be purchased by the Issuer, the Guarantors or any of their respective subsidiaries if they are purchased together with the right to receive all future payments of interest thereon.

Issuer's Options

Any option of the Issuer provided for in the Conditions shall be exercised by the Issuer giving notice to the Noteholders and the relevant Clearing Systems (or procuring that such notice is given on its behalf) within the time limits set out in and containing the information required by the Conditions, except that the notice shall not be required to contain the serial numbers of Notes drawn in the case of a partial exercise of an option and accordingly no drawing of Notes shall be required. In the case of a partial exercise of an option, the rights of accountholders with a clearing system in respect of the Notes will be governed by the standard procedures of Euroclear and/or Clearstream, Luxembourg and shall be reflected in the records of Euroclear and/or Clearstream, Luxembourg as either a pool factor or a reduction in nominal amount, at their discretion. Following the exercise of any such option, the Issuer shall procure that the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this permanent Global Note shall be reduced accordingly.

Noteholders' Options

Any option of the Noteholders provided for in the Conditions may be exercised by the holder of this permanent Global Note giving notice to the Issuing and Paying Agent within the time limits relating to the deposit of Notes with a Paying Agent set out in the Conditions substantially in the form of the notice available from any Paying Agent, except that the notice shall not be required to contain the certificate numbers of the Notes in respect of which the option has been exercised. Following the exercise of any such option, the Issuer shall procure that the nominal amount of the Notes recorded in the records of the relevant Clearing Systems and represented by this permanent Global Note shall be reduced by the aggregate nominal amount stated in the relevant exercise notice.

Notices

Notices required to be given in respect of the Notes represented by this permanent Global Note may be given by their being delivered (so long as this permanent Global Note is held on behalf of Euroclear and/or Clearstream, Luxembourg

and/or an Alternative Clearing System) to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be, or otherwise to the holder of this permanent Global Note, rather than by publication as required by the Conditions.

Negotiability

This permanent Global Note is a bearer document and negotiable and accordingly:

1. is freely transferable by delivery and such transfer shall operate to confer upon the transferee all rights and benefits appertaining hereto and to bind the transferee with all obligations appertaining hereto pursuant to the Conditions
2. the holder of this permanent Global Note is and shall be absolutely entitled as against all previous holders to receive all amounts by way of amounts payable upon redemption, interest or otherwise payable in respect of this permanent Global Note and the Issuer has waived against such holder and any previous holder of this permanent Global Note all rights of set-off or counterclaim that would or might otherwise be available to it in respect of the obligations evidenced by this Global Note and
3. payment upon due presentation of this permanent Global Note as provided herein shall operate as a good discharge against such holder and all previous holders of this permanent Global Note.

No provisions of this permanent Global Note shall alter or impair the obligation of the Issuer and the Guarantors to pay the principal and premium of and interest on the Notes when due in accordance with the Conditions and the Guarantee.

This permanent Global Note shall not be valid or become obligatory for any purpose until authenticated by or on behalf of the Issuing and Paying Agent and effectuated by the entity appointed as Common Safekeeper by the relevant Clearing Systems.

This permanent Global Note and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

In witness whereof the Issuer has caused this permanent Global Note to be duly signed on its behalf.

Dated as of the Issue Date.

[BSKYB FINANCE UK plc/BRITISH SKY BROADCASTING GROUP plc]*

By:

CERTIFICATE OF AUTHENTICATION

This permanent Global Note is authenticated without warranty, recourse or liability

by or on behalf of the Issuing and Paying Agent.

THE BANK OF NEW YORK MELLON

as Issuing and Paying Agent

By:

Authorised Signatory

A18113141

For the purposes of authentication only.

Effectuation

This permanent Global Note

is effectuated by or on behalf of the Common Safekeeper.

[COMMON SAFEKEEPER]

as Common Safekeeper

By:

Authorised Signatory

For the purposes of effectuation only.

Schedule 1

Part E

Form of Global Certificate

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

unconditionally and irrevocably guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc],[*] **British Sky Broadcasting Limited, Sky Subscribers Services Limited**

and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

GLOBAL CERTIFICATE

Global Certificate No. [•]

This Global Certificate is issued in respect of the nominal amount of the Notes (the "**Notes**") of the Tranche and Series specified in Part A of the Schedule hereto of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") and guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**"). This Global Certificate certifies that the person whose name is entered on the Register (the "**Registered Holder**") is registered as the holder of an issue of Notes of the nominal amount, specified currency and specified denomination set out in Part A of the Schedule hereto.

Interpretation and Definitions

References in this Global Certificate to the "Conditions" are to the Terms and Conditions applicable to the Notes (which are in the form set out in Schedule 2 Part C to the Trust Deed (as amended or supplemented as at the Issue Date, the "**Trust Deed**") dated 5 September 2014 between the Issuer, [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], the Initial Guarantors and BNY Mellon Corporate Trustee Services Limited as trustee, as such form is supplemented and/or modified and/or superseded by the provisions of this Global Certificate (including the supplemental definitions and any modifications or additions set out in Part A of the Schedule hereto), which in the event of any conflict shall prevail) and references to "Registrar" shall be to The Bank of New York Mellon (Luxembourg) S.A. Other capitalised terms used in this Global Certificate shall have the meanings given to them in the Conditions or the Trust Deed.

Promise to Pay

The Issuer, for value received, promises to pay to the holder of the Notes represented by this Global Certificate (subject to surrender of this Global Certificate if no further payment falls to be made in respect of such Notes) on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the Notes represented by this Global Certificate and (unless the Notes represented by this Global Certificate do not bear interest) to pay interest in respect of such Notes from the Interest Commencement Date in arrear at the rates, and on the dates for payment, and in accordance with the methods of calculation provided for in the Conditions, save that the calculation is made in respect of the total aggregate amount of the Notes represented by this Global Certificate, together with

such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions. Each payment will be made to, or to the order of, the person whose name is entered on the Register at the close of business on the record date which shall be on the Clearing System Business Day immediately prior to the date of payment, where "**Clearing System Business Day**" means Monday to Friday inclusive except 25 December and 1 January.

For the purposes of this Global Certificate, (a) the holder of the Notes represented by this Global Certificate is bound by the provisions of the Agency Agreement, (b) the Issuer certifies that the Registered Holder is, at the date hereof, entered in the Register as the holder of the Notes represented by this Global Certificate, (c) this Global Certificate is evidence of entitlement only, (d) title to the Notes represented by this Global Certificate passes only on due registration on the Register, and (e) only the holder of the Notes represented by this Global Certificate is entitled to payments in respect of the Notes represented by this Global Certificate.

Transfer of Notes represented by permanent Global Certificates

If the Schedule hereto states that the Notes are to be represented by a permanent Global Certificate on issue, transfers of the holding of Notes represented by this Global Certificate pursuant to Condition 2(b) may only be made in part:

(i) if the Notes represented by this Global Certificate are held on behalf of Euroclear or Clearstream, Luxembourg and/or an Alternative Clearing System and any such clearing system is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or does in fact do so; or

(ii) with the consent of the Issuer,

provided that, in the case of the first transfer of part of a holding pursuant to (i) above, the holder of the Notes represented by this Global Certificate has given the Registrar not less than 30 days' notice at its specified office of such holder's intention to effect such transfer. Where the holding of Notes represented by this Global Certificate is only transferable in its entirety, the Certificate issued to the transferee upon transfer of such holding shall be a Global Certificate. Where transfers are permitted in part, Certificates issued to transferees shall not be Global Certificates unless the transferee so requests and certifies to the Registrar that it is, or is acting as a nominee for, Clearstream, Luxembourg, Euroclear and/or an Alternative Clearing System.

Notices

Notices required to be given in respect of the Notes represented by this Global Certificate may be given by their being delivered (so long as this Global Certificate is held on behalf of Euroclear and/or Clearstream, Luxembourg and/or an Alternative Clearing System) to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be, or otherwise to the holder of this Global Certificate, rather than by publication as required by the Conditions. Any such notice shall be deemed to have been given to Noteholders on the day the same has been delivered to Euroclear, Clearstream, Luxembourg and/or such Alternative Clearing System, as the case may be.

Meetings

For the purposes of any meeting of Noteholders, the holder of the Notes represented by this Global Certificate shall (unless this Global Certificate represents only one Note) be treated as two persons for the purposes of any quorum requirements of a meeting of Noteholders and as being entitled to one vote in respect of each integral currency unit of the Specified Currency of the Notes.

This Global Certificate shall not become valid for any purpose until authenticated by or on behalf of the Registrar and in the case of Registered Notes held under the NSS only, effectuated by the entity appointed as Common Safekeeper by the relevant clearing systems.

This Global Certificate and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English law.

In witness whereof the Issuer has caused this Global Certificate to be signed on its behalf.

Dated as of the Issue Date.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc]*

By:

CERTIFICATE OF AUTHENTICATION

This Global Certificate is authenticated without warranty, recourse or liability

by or on behalf of the Registrar.

THE BANK OF NEW YORK MELLON (LUXEMBOURG) S.A.

as Registrar

By:

Authorised Signatory

For the purposes of authentication only.

Effectuation

This Global Certificate is effectuated by or on behalf of the Common Safekeeper.

[COMMON SAFEKEEPER]

as Common Safekeeper

By:

Authorised Signatory

For the purposes of effectuation of Registered Notes held through the NSS only

[BSkyB Finance UK plc/British Sky Broadcasting Group plc]**

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

unconditionally and irrevocably guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc]*,

British Sky Broadcasting Limited, Sky Subscribers Services Limited and

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

Series No. [•]

[Title of issue]

This Note forms one of the Series of Notes referred to above (the "**Notes**") of [BSkyB Finance UK plc/British Sky Broadcasting Group plc]* (the "**Issuer**") guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc]*, British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**") designated as specified in the title hereof. The Notes are subject to the Terms and Conditions (the "**Conditions**") endorsed hereon and are issued subject to, and with the benefit of, the Trust Deed referred to in the Conditions. Expressions defined in the Conditions have the same meanings in this Note.

The Issuer for value received promises to pay to the bearer of this Note, on presentation and (when no further payment is due in respect of this Note) surrender of this Note on the Maturity Date (or on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions and (unless this Note does not bear interest) to pay interest from the Interest Commencement Date in arrear at the rates, in the amounts and on the dates for payment provided for in the Conditions together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

This Note shall not become valid or obligatory for any purpose until authenticated by or on behalf of the Issuing and Paying Agent.

In witness whereof the Issuer has caused this Note to be signed on its behalf.

Dated as of the Issue Date.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc]*

By:

CERTIFICATE OF AUTHENTICATION

This Note is authenticated without warranty, recourse or liability

A18113141

by or on behalf of the Issuing and Paying Agent.

THE BANK OF NEW YORK MELLON

as Issuing and Paying Agent

By:

Authorised Signatory

For the purposes of authentication only.

A18113141

ISSUING AND PAYING AGENT, TRANSFER AGENT AND CALCULATION AGENT

The Bank of New York Mellon

One Canada Square

London E14 5AL

United Kingdom

PAYING AGENT, REGISTRAR AND TRANSFER AGENT

The Bank of New York Mellon (Luxembourg) S.A.

Vertigo Building - Polaris

2-4 rue Eugène Ruppert

L-2453 Luxembourg

Schedule 2

Part B

Form of Certificate

On the front:

[BSkyB Finance UK plc/British Sky Broadcasting Group plc][**]

(Incorporated with limited liability in England and Wales)

EURO MEDIUM TERM NOTE PROGRAMME

unconditionally and irrevocably guaranteed by

[BSkyB Finance UK plc/British Sky Broadcasting Group plc],[*] **British Sky Broadcasting Limited, Sky Subscribers Services Limited and**

Sky In-Home Service Limited

(Incorporated with limited liability in England and Wales)

Series No. [•]

[Title of issue]

This Certificate certifies that [•] of [•] (the "**Registered Holder**") is, as at the date hereof, registered as the holder of [nominal amount] of Notes of the Series of Notes referred to above (the "**Notes**") of [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*] (the "**Issuer**") guaranteed by [BSkyB Finance UK plc/British Sky Broadcasting Group plc][*], British Sky Broadcasting Limited, Sky Subscribers Services Limited and Sky In-Home Service Limited (the "**Initial Guarantors**" and together with any acceding guarantor until and to the extent such person is released from its obligations as a Guarantor, the "**Guarantors**"), designated as specified in the title hereof. The Notes are subject to the Terms and Conditions (the "**Conditions**") endorsed hereon and are issued subject to, and with the benefit of, the Trust Deed referred to in the Conditions. Expressions defined in the Conditions have the same meanings in this Certificate.

The Issuer, for value received, promises to pay to the holder of the Note(s) represented by this Certificate (subject to surrender of this Certificate if no further payment falls to be made in respect of such Notes) on the Maturity Date (or

on such earlier date as the amount payable upon redemption under the Conditions may become repayable in accordance with the Conditions) the amount payable upon redemption under the Conditions in respect of the Notes represented by this Certificate and (unless the Note(s) represented by this Certificate do not bear interest) to pay interest in respect of such Notes from the Interest Commencement Date in arrear at the rates, in the amounts and on the dates for payment provided for in the Conditions together with such other sums and additional amounts (if any) as may be payable under the Conditions, in accordance with the Conditions.

For the purposes of this Certificate, (a) the holder of the Note(s) represented by this Certificate is bound by the provisions of the Agency Agreement, (b) the Issuer certifies that the Registered Holder is, at the date hereof, entered in the Register as the holder of the Note(s) represented by this Certificate, (c) this Certificate is evidence of entitlement only, (d) title to the Note(s) represented by this Certificate passes only on due registration on the Register, and (e) only the holder of the Note(s) represented by this Certificate is entitled to payments in respect of the Note(s) represented by this Certificate.

This Certificate shall not become valid for any purpose until authenticated by or on behalf of the Registrar.

In witness whereof the Issuer has caused this Certificate to be signed on its behalf.

Dated as of the Issue Date.

[BSkyB Finance UK plc/British Sky Broadcasting Group plc]*

By:

CERTIFICATE OF AUTHENTICATION

This Certificate is authenticated without warranty, recourse or liability

by or on behalf of the Registrar.

THE BANK OF NEW YORK MELLON (lUXEMBOURG) S.A.

as Registrar

By:

Authorised Signatory

For the purposes of authentication only.

ISSUING AND PAYING AGENT, TRANSFER AGENT AND CALCULATION AGENT

The Bank of New York Mellon

One Canada Square

London E14 5AL

United Kingdom

REGISTRAR, PAYING AGENT AND TRANSFER AGENT

The Bank of New York Mellon (Luxembourg) S.A.

Vertigo Building - Polaris

2-4 rue Eugène Ruppert

L-2453 Luxembourg

Schedule 2

Part C

Terms and Conditions of the Notes

ISSUING AND PAYING AGENT

The Bank of New York Mellon

One Canada Square

London E14 5AL

United Kingdom

Schedule 3

Provisions for Meetings of Noteholders

Interpretation

1 In this Schedule:

1.1 references to a meeting are to a meeting of Noteholders of a single series of Notes and include, unless the context otherwise requires, any adjournment

1.2 references to "**Notes**" and "**Noteholders**" are only to the Notes of the Series in respect of which a meeting has been, or is to be, called, and to the holders of these Notes, respectively

1.3"**agent**" means a holder of a voting certificate or a proxy for, or representative of, a Noteholder

1.4"**block voting instruction**" means an instruction issued in accordance with paragraphs 8 to 14

1.5 "**Electronic Consent**" has the meaning set out in paragraph 30

1.6 "**Extraordinary Resolution**" means a resolution passed (a) at a meeting duly convened and held in accordance with this Trust Deed by a majority of at least 75 per cent. of the votes cast or (b) by an Electronic Consent

1.7 "**voting certificate**" means a certificate issued in accordance with paragraphs 5, 6, 7 and 14 and

1.8 references to persons representing a proportion of the Notes are to Noteholders or agents holding or representing in the aggregate at least that proportion in nominal amount of the Notes for the time being outstanding.

Powers of meetings

2 A meeting shall, subject to the Conditions and without prejudice to any powers conferred on other persons by this Trust Deed, have power by Extraordinary Resolution:

2.1 to sanction any proposal by the Issuer, the Guarantors or the Trustee for any modification, abrogation, variation or compromise of, or arrangement in respect of, the rights of the Noteholders and/or the Couponholders against the Issuer or the Guarantors, whether or not those rights arise under this Trust Deed

2.2 to sanction the exchange or substitution for the Notes of, or the conversion of the Notes into, shares, bonds or other obligations or securities of the Issuer, the Guarantors or any other entity

2.3 to assent to any modification of this Trust Deed, the Notes, the Talons or the Coupons proposed by the Issuer, the Guarantors or the Trustee

2.4 to authorise anyone to concur in and do anything necessary to carry out and give effect to an Extraordinary Resolution

2.5 to give any authority, direction or sanction required to be given by Extraordinary Resolution

2.6 to appoint any persons (whether Noteholders or not) as a committee or committees to represent the Noteholders' interests and to confer on them any powers or discretions which the Noteholders could themselves exercise by Extraordinary Resolution

2.7 to approve a proposed new Trustee and to remove a Trustee

2.8 to approve the substitution of any entity for the Issuer or any Guarantor (or any previous substitute) as principal debtor or a guarantor under this Trust Deed and

2.9 to discharge or exonerate the Trustee from any liability in respect of any act or omission for which it may become responsible under this Trust Deed, the Notes, the Talons or the Coupons,

provided that the special quorum provisions in paragraph 19 shall apply to any Extraordinary Resolution (a "**special quorum resolution**") for the purpose of sub-paragraph 2.2 or 2.8, any of the proposals listed in Condition 11(a) or any amendment to this proviso.

Convening a meeting

3 The Issuer, a Guarantor or the Trustee may at any time convene a meeting. If it receives a written request by Noteholders holding at least 10 per cent. in nominal amount of the Notes of any Series for the time being outstanding, the Trustee shall subject to it being indemnified and/or secured and/or prefunded to its satisfaction convene a meeting of the Noteholders of that Series. Every meeting shall be held at a time and place approved by the Trustee.

4 At least 21 days' notice (exclusive of the day on which the notice is given and of the day of the meeting) shall be given to the Noteholders. A copy of the notice shall be given by the party convening the meeting to the other parties. The notice shall specify the day, time and place of meeting and, unless the Trustee otherwise agrees, the nature of the resolutions to be proposed and shall explain how Noteholders may appoint proxies or representatives, obtain voting certificates and use block voting instructions and the details of the time limits applicable.

Arrangements for voting

5 If a holder of a Bearer Note wishes to obtain a voting certificate in respect of it for a meeting, he must deposit it for that purpose at least 48 hours before the time fixed for the meeting with a Paying Agent or to the order of a Paying Agent with a bank or other depositary nominated by the Paying Agent for the purpose. The Paying Agent shall then issue a voting certificate in respect of it.

6 A voting certificate shall:

6.1 be a document in the English language

6.2 be dated

6.3 specify the meeting concerned and the serial numbers of the Notes deposited and

6.4 entitle, and state that it entitles, its bearer to attend and vote at that meeting in respect of those Notes.

7 Once a Paying Agent has issued a voting certificate for a meeting in respect of a Note, it shall not release the Note until either:

7.1 the meeting has been concluded or

7.2 the voting certificate has been surrendered to the Paying Agent.

8 If a holder of a Bearer Note wishes the votes attributable to it to be included in a block voting instruction for a meeting, then, at least 48 hours before the time fixed for the meeting, (i) he must deposit the Note for that purpose with a Paying Agent or to the order of a Paying Agent with a bank or other depositary nominated by the Paying Agent for the purpose and (ii) he or a duly authorised person on his behalf must direct the Paying Agent how those votes are to be cast. The Paying Agent shall issue a block voting instruction in respect of the votes attributable to all Notes so deposited.

9 A block voting instruction shall:

9.1 be a document in the English language

9.2 be dated

9.3 specify the meeting concerned

9.4 list the total number and serial numbers of the Notes deposited, distinguishing with regard to each resolution between those voting for and those voting against it

9.5 certify that such list is in accordance with Notes deposited and directions received as provided in paragraphs 8, 11 and 14 and

9.6 appoint a named person (a "**proxy**") to vote at that meeting in respect of those Notes and in accordance with that list.

A proxy need not be a Noteholder.

10 Once a Paying Agent has issued a block voting instruction for a meeting in respect of the votes attributable to any Notes:

10.1 it shall not release the Notes, except as provided in paragraph 11, until the meeting has been concluded and

10.2 the directions to which it gives effect may not be revoked or altered during the 48 hours before the time fixed for the meeting.

11 If the receipt for a Note deposited with a Paying Agent in accordance with paragraph 8 is surrendered to the Paying Agent at least 48 hours before the time fixed for the meeting, the Paying Agent shall release the Note and exclude the votes attributable to it from the block voting instruction.

12 Each block voting instruction shall be deposited at least 24 hours before the time fixed for the meeting at such place as the Trustee shall designate or approve, and in default it shall not be valid unless the chairman of the meeting decides otherwise before the meeting proceeds to business. If the Trustee requires, a notarially certified copy of each block voting instruction shall be produced by the proxy at the meeting but the Trustee need not investigate or be concerned with the validity of the proxy's appointment.

13 A vote cast in accordance with a block voting instruction shall be valid even if it or any of the Noteholders' instructions pursuant to which it was executed has previously been revoked or amended, unless written intimation of such revocation or amendment is received from the relevant Paying Agent by the Issuer or the Trustee at its registered office or by the chairman of the meeting in each case at least 24 hours before the time fixed for the meeting.

14 No Note may be deposited with or to the order of a Paying Agent at the same time for the purposes of both paragraph 5 and paragraph 8 for the same meeting.

15.1 A holder of a Registered Note may, by an instrument in writing in the form available from the specified office of a Transfer Agent in the English language executed by or on behalf of the holder and delivered to the Transfer Agent at least 24 hours before the time fixed for a meeting, appoint any person (a "**proxy**") to act on his behalf in connection with that meeting. A proxy need not be a Noteholder.

15.2 A corporation which holds a Registered Note may by delivering to a Transfer Agent at least 24 hours before the time fixed for a meeting a certified copy of a resolution of its directors or other governing body (with, if it is not in English, a certified translation into English) authorise any person to act as its representative (a "**representative**") in connection with that meeting.

15.3 Any proxy or representative appointed pursuant to paragraph 15.1 or 15.2 (as applicable) shall, so long as such appointment remains in force be deemed, for all purposes in connection with the relevant meeting or adjourned meeting, to be the holder of the Registered Notes to which such appointment relates and the holder of the Registered Notes shall be deemed for such purposes not to be the holder or owner, respectively (as applicable).

Chairman

16 The chairman of a meeting shall be such person as the Trustee may nominate in writing, but if no such nomination is made or if the person nominated is not present within 15 minutes after the time fixed for the meeting the Noteholders or agents present shall choose one of their number to be chairman, failing which the Issuer may appoint a chairman. The chairman need not be a Noteholder or agent. The chairman of an adjourned meeting need not be the same person as the chairman of the original meeting.

Attendance

17 The following may attend and speak at a meeting:

17.1Noteholders and agents

17.2 the chairman

17.3 the Issuer, the Guarantors and the Trustee (through their respective representatives) and their respective financial and legal advisers

17.4 the Dealers and their advisers.

No-one else may attend or speak.

Quorum and Adjournment

18 No business (except choosing a chairman) shall be transacted at a meeting unless a quorum is present at the commencement of business. If a quorum is not present within 15 minutes from the time initially fixed for the meeting, it shall, if convened on the requisition of Noteholders or if the Issuer and the Trustee agree, be dissolved. In any other case it shall be adjourned until such date, not less than 14 nor more than 42 days later, and time and place as the chairman may decide. If a quorum is not present within 15 minutes from the time fixed for a meeting so adjourned, the meeting shall be dissolved.

19 Two or more Noteholders or agents present in person shall be a quorum:

191 in the cases marked “No minimum proportion” in the table below, whatever the proportion of the Notes which they represent

19.2 in any other case, only if they represent the proportion of the Notes shown by the table below.

COLUMN 1	COLUMN 2	COLUMN 3
Purpose of meeting	Any meeting except one referred to in column 3 Required proportion	Meeting previously adjourned through want of a quorum Required proportion
To pass a special quorum resolution	75 per cent	25 per cent
To pass any other Extraordinary Resolution	A clear majority	No minimum proportion
Any other purpose	10 per cent	No minimum proportion

20The chairman may with the consent of (and shall if directed by) a meeting adjourn the meeting from time to time and from place to place. Only business which could have been transacted at the original meeting may be transacted at a meeting adjourned in accordance with this paragraph or paragraph 18.

21 At least 10 days’ notice of a meeting adjourned through want of a quorum shall be given in the same manner as for an original meeting and that notice shall state the quorum required at the adjourned meeting. No notice need, however, otherwise be given of an adjourned meeting.

Voting

22 Each question submitted to a meeting shall be decided by a show of hands unless a poll is (before, or on the declaration of the result of, the show of hands) demanded by the chairman, the Issuer, the Guarantors, the Trustee or one or more persons representing two per cent. of the Notes.

23 Unless a poll is demanded a declaration by the chairman that a resolution has or has not been passed shall be conclusive evidence of the fact without proof of the number or proportion of the votes cast in favour of or against it.

24 If a poll is demanded, it shall be taken in such manner and (subject as provided below) either at once or after such adjournment as the chairman directs. The result of the poll shall be deemed to be the resolution of the meeting at which it was demanded as at the date it was taken. A demand for a poll shall not prevent the meeting continuing for the transaction of business other than the question on which it has been demanded.

25 A poll demanded on the election of a chairman or on a question of adjournment shall be taken at once.

26 On a show of hands every person who is present in person and who produces a Bearer Note, a Certificate of which he is the registered holder or a voting certificate or is a proxy or representative has one vote. On a poll every such person has one vote in respect of each integral currency unit of the Specified Currency of such Series of Notes so produced or represented by the voting certificate so produced or for which he is a proxy or representative. Without prejudice to the obligations of proxies, a person entitled to more than one vote need not use them all or cast them all in the same way.

27 In case of equality of votes the chairman shall both on a show of hands and on a poll have a casting vote in addition to any other votes which he may have.

Effect and Publication of an Extraordinary Resolution

28 An Extraordinary Resolution shall be binding on all the Noteholders, whether or not present at the meeting, and on all the Couponholders and each of them shall be bound to give effect to it accordingly. The passing of such a resolution shall be conclusive evidence that the circumstances justify its being passed. The Issuer shall give notice of the passing of an Extraordinary Resolution to Noteholders within 14 days but failure to do so shall not invalidate the resolution.

Minutes

29 Minutes shall be made of all resolutions and proceedings at every meeting and, if purporting to be signed by the chairman of that meeting or of the next succeeding meeting, shall be conclusive evidence of the matters in them. Until the contrary is proved every meeting for which minutes have been so made and signed shall be deemed to have been duly convened and held and all resolutions passed or proceedings transacted at it to have been duly passed and transacted.

Electronic Consent

30 For so long as the Notes are in the form of a Global Note held on behalf of, or a Global Certificate registered in the name of any nominee for, one or more of Euroclear, Clearstream, Luxembourg and/or any Alternative Clearing System, then, in respect of any resolution proposed by the Issuer, the Guarantors or the Trustee where the terms of the proposed resolution have been notified to the Noteholders through the relevant clearing system(s), each of the Issuer, the Guarantors and the Trustee shall be entitled to rely upon approval of such resolution proposed by the Issuer, the Guarantors or the Trustee (as the case may be) given by way of electronic consents communicated through the electronic communications systems of the relevant clearing system(s) in accordance with their operating rules and procedures by or on behalf of the holders of not less than 75 per cent. in nominal amount of the Notes outstanding ("**Electronic Consent**"). None of the Issuer, the Guarantors or the Trustee shall be liable or responsible to anyone for such reliance.

An Electronic Consent shall take effect as an Extraordinary Resolution. An Electronic Consent will be binding on all Noteholders and holders of Coupons and Talons, whether or not they participated in such Electronic Consent.

Trustee's Power to Prescribe Regulations

31 Subject to all other provisions in this Trust Deed the Trustee may without the consent of the Noteholders prescribe such further regulations regarding the holding of meetings and attendance and voting at them as it in its sole discretion determines including (without limitation) such requirements as the Trustee thinks reasonable to satisfy itself that the persons who purport to make any requisition in accordance with this Trust Deed are entitled to do so and as to the form of voting certificates or block voting instructions so as to satisfy itself that persons who purport to attend or vote at a meeting are entitled to do so.

32 The holder of a Global Note or Global Certificate shall (unless such Global Note or Global Certificate represents only one Note) be treated as two persons for the purposes of any quorum requirements of a meeting of Noteholders.

33 The foregoing provisions of this Schedule shall have effect subject to the following provisions:

33.1 Meetings of Noteholders of separate Series will normally be held separately. However, the Trustee may from time to time determine that meetings of Noteholders of separate Series shall be held together

33.2 A resolution that in the opinion of the Trustee affects one Series alone shall be deemed to have been duly passed if passed at a separate meeting of the Noteholders of the Series concerned

33.3 A resolution that in the opinion of the Trustee affects the Noteholders of more than one Series but does not give rise to a conflict of interest between the Noteholders of the different Series concerned shall be deemed to have been duly passed if passed at a single meeting of the Noteholders of the relevant Series provided that for the purposes of determining the votes a Noteholder is entitled to cast pursuant to paragraph 26, each Noteholder shall have one vote in respect of each £1,000 nominal amount of Notes held, converted, if such Notes are not denominated in pounds sterling, in accordance with Clause 11.13

33.4 A resolution that in the opinion of the Trustee affects the Noteholders of more than one Series and gives or may give rise to a conflict of interest between the Noteholders of the different Series concerned shall be deemed to have been duly passed only if it shall be duly passed at separate meetings of the Noteholders of the relevant Series

33.5 To all such meetings as aforesaid all the preceding provisions of this Schedule shall *mutatis mutandis* apply as though references therein to Notes and to Noteholders were references to the Notes and Noteholders of the Series concerned.

This deed is delivered on the date stated at the beginning.

BSkyB Finance UK plc

as Issuer

By its duly authorised attorney:

Witnessed by:

British Sky Broadcasting Group plc

as Issuer

By its duly authorised attorney:

Witnessed by:

BSkyB Finance UK plc

as Initial Guarantor

By its duly authorised attorney:

Witnessed by:

British Sky Broadcasting Group plc

as Initial Guarantor

By its duly authorised attorney:

Witnessed by:

British Sky Broadcasting limited

as Initial Guarantor

By its duly authorised attorney:

Witnessed by:

sky subscribers serVICES LIMITED

as Initial Guarantor

By its duly authorised attorney:

Witnessed by:

SKY IN-HOME SERVICE LIMITED

as Initial Guarantor

By its duly authorised attorney:

Witnessed by:

Executed as a Deed by
BNY MELLON CORPORATE TRUSTEE SERVICES LIMITED
acting by two of its lawful attorneys:

Attorney:

Attorney:

in the presence of:
Witness name:

Signature:

Address: One Canada Square, London E14 5AL

EXECUTION VERSION

DATED 18 MARCH 2015

SKY GROUP FINANCE PLC (FORMERLY KNOWN AS BSKYB FINANCE UK PLC)

SKY PLC (FORMERY KNOWN BRITISH SKY BROADCASTING GROUP PLC)

THE COMPANIES DESCRIBED AS GUARANTORS HEREIN

AND

BYN MELLOM CORPORATE TRUSTEE SERVICES LIMITED

SUPPLEMENTAL TRUST DEED
RELATING TO A TRUST DATED 5 SEPTEMBER 2014 IN RESPECT OF £10,000,000,000 GUARANTEED EURO MEDIUM TERM NOTE PROGRAMME

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Schedule 1 Terms and Conditions of the Notes6

THIS FIRST SUPPLEMENTAL TRUST DEED is made on 18 March 2015

BETWEEN:

(1) **SKY GROUP FINANCE PLC** (formerly known as BSkyB Finance UK plc) ("**Sky Finance**") and **SKY PLC** (formerly known as British Sky Broadcasting Group plc) ("**Sky**") (each an "**Issuer**" and together, the "**Issuers**");

(2) **SKY FINANCE, SKY, SKY UK LIMITED** (formerly known as British Sky Broadcasting Limited) **(**"**Sky UK**"), **SKY SUBSCRIBERS SERVICES LIMITED** ("**Sky Subscribers**") and **SKY IN-HOME SERVICE LIMITED** ("**Sky In-Home**") (each when acting in its capacity as guarantor, an "**Initial Guarantor**" and together, the "**Initial Guarantors**");

(3) **SKY TELECOMMUNICATIONS SERVICES LIMITED (**"**STSL**" and together with the Initial Guarantors, the "**Guarantors**"); and

(4) **BNY MELLON CORPORATE TRUSTEE SERVICES LIMITED** (the "**Trustee**").

WHEREAS:

(A) The Issuers and the Initial Guarantors have established a programme (the "**Programme**") for the issuance of notes in connection with which the Issuers, the Initial Guarantors and the Trustee have entered into a trust deed (the "**Principal Trust Deed**") dated 5 September 2014.

(B) As at the date hereof, Sky has the following notes outstanding under the Programme:

(i) €1,500,000,000 1.500 per cent. Guaranteed Notes due 2021 (ISIN: XS1109741246);

(ii) €1,000,000,000 2.500 per cent. Guaranteed Notes due 2026 (ISIN: XS1109741329);

(iii) €850,000,000 1.875 per cent. Guaranteed Notes due 2023 (ISIN: XS1141969912);

(iv) £450,000,000 2.875 per cent. Guaranteed Notes due 2020 (ISIN: XS1141970092);

(v) £300,000,000 4.000 per cent. Guaranteed Notes due 2029 (ISIN: XS1141970175); and

(vi) €400,000,000 2.750 per cent. Guaranteed Notes due 2029 (ISIN: XS1143502901),

(together, the "**Existing Notes**").

(C) As a result of STSL's guarantee of other Indebtedness for borrowed money, pursuant to Clause 5.9 (*Guarantees by Subsidiaries*) of the Principal Trust Deed, Sky is required to procure that STSL enter into a supplemental trust deed to the Principal

Trust Deed in order to provide a guarantee in respect of the Existing Notes. In addition, Sky In-Home has ceased to guarantee Indebtedness for borrowed money, and is therefore released from its obligations as a Guarantor of the Existing Notes pursuant to Clause 5.10 (*Release of Guarantors*) of the Principal Trust Deed. Accordingly, the parties hereto now wish to enter into this supplemental trust deed (the "**Supplemental Trust Deed**") in order to (i) accede STSL as an additional guarantor in respect of the Existing Notes and the Programme in accordance with Clause 5.9 (*Guarantees by Subsidiaries*) of the Principal Trust Deed and (ii) release Sky In-Home from its obligations as Guarantor in respect of the Existing Notes in accordance with Clause 5.10 (*Release of Guarantors*) of the Principal Trust Deed.

NOW THIS DEED WITNESSETH and it is hereby agreed and declared as follows:

1. **Definitions and Interpretation**

All words and expressions defined in the Principal Trust Deed shall where the context so requires and admits have the same meaning in this Supplemental Trust Deed and the principles of interpretation specified in Clause 1 (*Interpretation*) of the Principal Trust Deed shall where the context so requires and admits also apply to this Supplemental Trust Deed.

2. **Amendments to the Principal Trust Deed**

2.1 Guarantor Accession

2.1.1 In accordance with Clause 5.9 (*Guarantees by Subsidiaries*) of the Principal Trust Deed, STSL hereby agrees to be bound by the Principal Trust Deed and irrevocably and unconditionally guarantees, on the terms *mutatis mutandis* of Clause 5 (*Guarantee and Indemnity*) of the Principal Trust Deed and on a *pari passu* basis with its obligations as guarantor as are referred to in Clause 5.9.2 of the Principal Trust Deed, the due and punctual payment of all sums expressed to be payable by Sky under the Existing Notes and by the Issuers under the Principal Trust Deed when and as the same shall become due and payable as if STSL had been named in the Principal Trust Deed as an Initial Guarantor.

2.1.2 STSL hereby also agrees to be bound by the Principal Trust Deed and irrevocably and unconditionally guarantees, on the terms *mutatis mutandis* of Clause 5 (*Guarantee and Indemnity*) of the Principal Trust Deed and on a *pari passu* basis with its obligations as guarantor as are referred to in Clause 5.9.2 of the Principal Trust Deed, the due and punctual payment of all sums expressed to be payable by any of the Issuers under any notes which will be issued under the Programme from time to time.

2.2 Release of Guarantors

In accordance with Clause 5.10 (*Release of Guarantors*) of the Principal Trust Deed, each of the parties hereto acknowledges that with effect from the date of this Supplemental Trust Deed, Sky In-Home shall (i) be fully and unconditionally released from all obligations as a Guarantor under the Guarantee of the Existing Notes and the Principal Trust Deed which includes, for the avoidance of doubt, all obligations in

respect of any Existing Notes outstanding at the date hereof and (ii) not be a Guarantor of notes issued under the Programme after the date hereof.

3. **Amendments to the Terms and Conditions**

3.1 In respect of the Existing Notes, the third paragraph of the Terms and Conditions of the Existing Notes as set out in Schedule 2 Part C to the Principal Trust Deed shall be deemed to be deleted and replaced with the following:
"Notes issued by Sky Finance are guaranteed by Sky, Sky UK Limited (formerly known as British Sky Broadcasting Limited) ("**Sky UK**"), Sky Subscribers Services Limited ("**Sky Subscribers**") and Sky Telecommunications Services Limited ("**STSL**"). Notes issued by Sky are guaranteed by Sky Finance, Sky UK, Sky Subscribers and STSL (when acting in its capacity as guarantor of the relevant Notes, each such entity and any acceding guarantor is referred to as a "**Guarantor**" and the Guarantors of the Notes issued by Sky Finance or Sky are together, referred to herein as the "**Guarantors**") (subject to change in accordance with Condition 3(c))."

3.2 In respect of Notes issued after the date hereof, the Terms and Conditions of the Notes as set out in Schedule 2 Part C to the Principal Trust Deed are hereby deleted in their entirety and replaced with the Terms and Conditions set out in Schedule 1 hereto. Notes issued under the Programme after the date hereof shall, unless otherwise agreed by the parties hereto, be issued pursuant to the Terms and Conditions in Schedule 1.

4. **Conditions Precedent**
The obligations and agreements under this Supplemental Trust Deed are conditional upon receipt by the Trustee of the following:

4.1.1 **Legal Opinion**: a legal opinion addressed to the Trustee, in a form and content acceptable to the Trustee, from Clifford Chance LLP as to English law;

4.1.2 **Certificate of Compliance**: in accordance with Clause 5.10 (*Release of Guarantors*) of the Principal Trust Deed, a certificate signed by two directors of each of Sky and Sky In-Home certifying that Sky In-Home has been fully and unconditionally released from all obligations under guarantees of Indebtedness for money borrowed in excess of £50,000,000 and Sky-In Home's compliance with the terms of the Principal Trust Deed; and

4.1.3 **Written Request and Notice of Release**; in accordance with Clause 5.10 (*Release of Guarantors*) of the Principal Trust Deed, a written request and notice of release of Sky-In Home from its obligations as Guarantor in respect of the Notes signed by two directors of each of Sky and Sky In-Home.

5. **Costs, Expenses and Indemnification**

5.1 The Issuers shall, from time to time on demand of the Trustee, reimburse the Trustee for all properly incurred costs and expenses (including legal fees) incurred by it in connection with the negotiation, preparation and execution or purported execution of this Supplemental Trust Deed and the completion of the matters herein contemplated.

5.2 The Issuers, failing whom each Guarantor, shall jointly and severally indemnify the Trustee and every agent or delegate against any and all losses, liabilities, costs, claims, actions or demands incurred by it or him or which may be made against it or him as a result of or in connection with the execution or purported execution of this Supplemental Trust Deed and the amendments hereby effected.

6. **Further Assurance**

The Issuers, the Initial Guarantors and STSL jointly and severally undertake to the Trustee to execute all such other documents and comply with all such other requirements to effect the amendments contemplated hereby and any other matter incidental thereto as the Trustee may direct in the interests of the Noteholders.

7. **Trust Deed**

This Supplemental Trust Deed is supplemental to the Principal Trust Deed and subject to the amendments to be effected to the Principal Trust Deed hereunder, the Principal Trust Deed and the Existing Notes shall remain in full force and effect and the Principal Trust Deed and this Supplemental Trust Deed shall be read and construed together as one deed.

8. **Notices**

8.1 A memorandum of this Supplemental Trust Deed shall be endorsed on the original of the Principal Trust Deed by the Trustee and on the duplicate thereof by the Issuers, the Initial Guarantors and STSL.

8.2 Sky shall, as soon as practicable after the amendments set out in Clause 2 (*Amendments to the Principal Trust Deed*) of this Supplemental Trust Deed become effective, give notice of the amendments to the Noteholders in accordance with Condition 16 (*Notices*).

9. **Counterparts**

This Supplemental Trust Deed may be executed in any number of counterparts, each of which is an original and all of which together evidence the same agreement. This Supplemental Trust Deed shall not come into effect until each party has executed and delivered at least one counterpart.

10. **Governing Law**

This Supplemental Trust Deed and any non-contractual obligations arising out of or in connection with it are governed by, and shall be construed in accordance with, the laws of England.

11. **Third Party Rights**

A person who is not party to this Supplemental Trust Deed may not enforce any terms of this Supplemental Trust Deed under the Contract (Rights of Third Parties) Act 1999, but this does not affect any right or remedy of any third party which exists or is available apart from that Act.

IN WITNESS WHEREOF this Supplemental Trust Deed has been executed as a deed by the parties hereto and is intended to be and is hereby delivered on the day first before written.

SCHEDULE 1
Terms and Conditions of the notes

The following is the text of the terms and conditions that, subject to completion in accordance with the provisions of Part A of the relevant Final Terms, shall be applicable to the Notes in definitive form (if any) issued in exchange for the Global Note(s) or Certificate(s) representing each Series. The full text of these terms and conditions together with the relevant provisions of Part A of the Final Terms shall be endorsed on such Bearer Notes or on the Certificates relating to such Registered Notes. All capitalised terms that are not defined in these Conditions will have the meanings given to them in Part A of the relevant Final Terms. Those definitions will be endorsed on the Definitive Notes or Certificates, as the case may be. References in the Conditions to "Notes" are to the Notes of one Series only, not to all Notes that may be issued under the Programme.

Sky Group Finance plc (formerly known as BSkyB Finance UK plc) ("Sky Finance") and Sky plc (formerly known as British Sky Broadcasting Group plc) ("Sky") (together, the "Issuers") have established a Euro Medium Term Note Programme (the "Programme") for the issuance of up to £10,000,000,000 in aggregate principal amount of notes outstanding at any time (the "Notes").Notes issued by Sky Finance are guaranteed by Sky, Sky UK Limited (formerly known as British Sky Broadcasting Limited) ("Sky UK"), Sky Subscribers Services Limited ("Sky Subscribers") and Sky Telecommunications Services Limited ("STSL"). Notes issued by Sky are guaranteed by Sky Finance, Sky UK, Sky Subscribers and STSL (when acting in its capacity as guarantor of the relevant Notes, each such entity and any acceding guarantor is referred to as a "Guarantor" and the Guarantors of the Notes issued by Sky Finance or Sky are together, referred to herein as the "Guarantors") (subject to change in accordance with Condition 3(c)).

The Notes are constituted by a trust deed (as amended or supplemented as at the date of issue of the Notes (the "Issue Date"), the "Trust Deed") dated 5 September 2014 between the Issuers, the Guarantors and BNY Mellon Corporate Trustee Services Limited (the "Trustee", which expression shall include all persons for the time being the trustee or trustees under the Trust Deed) as trustee for the Noteholders (as defined below). These terms and conditions include summaries of, and are subject to, the detailed provisions of the Trust Deed, which includes the form of the Bearer Notes, Certificates, Coupons and Talons referred to below. An agency agreement (as amended or supplemented as at the Issue Date, the "Agency Agreement") dated 5 September 2014 has been entered into in relation to the Notes between the Issuers, the Guarantors, the Trustee, The Bank of New York Mellon, acting through its London branch, as initial issuing and paying agent and the other agents named in it. The issuing and paying agent, the paying agents, the registrar, the transfer agents and the calculation agent(s) for the time being (if any) are referred to below respectively as the "Issuing and Paying Agent", the "Paying Agents" (which expression shall include the Issuing and Paying Agent), the "Registrar", the "Transfer Agents" (which expression shall include the Registrar) and the "Calculation Agent(s)". Copies of the Trust Deed and the Agency Agreement are available for inspection during usual business hours at the principal office of the Trustee (presently at One Canada Square, London E14 5AL) and at the specified offices of the Paying Agents and the Transfer Agents.For the purposes of these terms and conditions, references to "the Issuer" are to whichever of Sky Finance or Sky is named as Issuer hereon.The Noteholders, the holders of the interest coupons (the "Coupons") relating to interest bearing Notes in bearer form and, where applicable in the case of such Notes, talons for further Coupons (the "Talons") (the "Couponholders") are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Trust Deed and are deemed to have notice of those provisions applicable to them of the Agency Agreement.

As used in these Conditions, "Tranche" means Notes which are identical in all respects.

1 Form, Denomination and Title

The Notes are issued in bearer form ("Bearer Notes", which expression includes Notes that are specified to be Exchangeable Bearer Notes), in registered form ("Registered Notes") or in bearer form exchangeable for Registered Notes ("Exchangeable Bearer Notes") in each case in the Specified Denomination(s) shown hereon.

Bearer Notes are in the Specified Denomination(s) with Coupons and, if specified hereon, Talons attached at the time of issue. In the case of a Series of Bearer Notes with more than one Specified Denomination, Bearer Notes of one Specified Denomination will not be exchangeable for Bearer Notes of another Specified Denomination.

Registered Notes are in the Specified Denomination(s), which may include a minimum denomination specified hereon and higher integral multiples of a smaller amount specified hereon.

Where Exchangeable Bearer Notes are issued, the Registered Notes for which they are exchangeable shall have the same Specified Denomination as the lowest denomination of Exchangeable Bearer Notes.

This Note is a Fixed Rate Note, a Floating Rate Note, a Zero Coupon Note or a combination of any of the foregoing, depending upon the Interest Basis shown hereon.

Bearer Notes are serially numbered and are issued with Coupons (and, where appropriate, a Talon) attached, save in the case of Zero Coupon Notes in which case references to interest (other than in relation to interest due after the Maturity Date), Coupons and Talons in these Conditions are not applicable.

Registered Notes are represented by registered certificates ("Certificates") and, save as provided in Condition 2(c), each Certificate shall represent the entire holding of Registered Notes by the same holder.

Title to the Bearer Notes and the Coupons and Talons shall pass by delivery. Title to the Registered Notes shall pass by registration in the register that the Issuer shall procure to be kept by the Registrar in accordance with the provisions of the Agency Agreement (the "Register"). Except as ordered by a court of competent jurisdiction or as required by law, the holder (as defined below) of any Note, Coupon or Talon shall be deemed to be and may be treated as its absolute owner for all purposes whether or not it is overdue and regardless of any notice of ownership, trust or an interest in it, any writing on it (or on the Certificate representing it) or its theft or loss (or that of the related Certificate) and no person shall be liable for so treating the holder.

In these Conditions, "Noteholder" means the bearer of any Bearer Note or the person in whose name a Registered Note is registered (as the case may be), "holder" (in relation to a Note, Coupon or Talon) means the bearer of any Bearer Note, Coupon or Talon or the person in whose name a Registered Note is registered (as the case may be) and capitalised terms have the meanings given to them hereon, the absence of any such meaning indicating that such term is not applicable to the Notes.

2 Exchanges of Exchangeable Bearer Notes and Transfers of Registered Notes

(a) Exchange of Exchangeable Bearer Notes

Subject as provided in Condition 2(f), Exchangeable Bearer Notes may be exchanged for the same nominal amount of Registered Notes at the request in writing of the relevant Noteholder and upon surrender of each Exchangeable Bearer Note to be exchanged, together with all unmatured Coupons and Talons relating to it, at the specified office of any Transfer Agent; provided, however, that where an Exchangeable Bearer Note is surrendered for exchange after the Record Date (as defined in Condition 7(b)) for any payment of interest, the Coupon in respect of that payment of interest need not be surrendered with it. Registered Notes may not be exchanged for Bearer Notes. Bearer Notes of one Specified Denomination may not be exchanged for Bearer Notes of another Specified Denomination. Bearer Notes that are not Exchangeable Bearer Notes may not be exchanged for Registered Notes.

(b) Transfer of Registered Notes

One or more Registered Notes may be transferred upon the surrender (at the specified office of the Registrar or any Transfer Agent) of the Certificate representing such Registered Notes to be transferred, together with the form of transfer endorsed on such Certificate, (or another form of transfer substantially in the same form and containing the same representations and certifications (if any), unless otherwise agreed by the Issuer), duly completed and executed and any other evidence as the Registrar or Transfer Agent may require. In the case of a transfer of part only of a holding of Registered Notes represented by one Certificate, a new Certificate shall be issued to the transferee in respect of the part transferred and a further new Certificate in respect of the balance of the holding not transferred shall be issued to the transferor. All transfers of Notes and entries on the Register will be made subject to the detailed regulations concerning transfers of Notes scheduled to the Agency Agreement. The regulations may be changed by the Issuer, with the prior written approval of the Registrar and the Trustee. A copy of the current regulations will be made available by the Registrar to any Noteholder upon request.

(c) Exercise of Options or Partial Redemption in Respect of Registered Notes

In the case of an exercise of an Issuer's or Noteholders' option in respect of, or a partial redemption of, a holding of Registered Notes represented by a single Certificate, a new Certificate shall be issued to the holder to reflect the exercise of such option or in respect of the balance of the holding not redeemed. In the case of a partial exercise of an option resulting in Registered Notes of the same holding having different terms, separate Certificates shall be issued in respect of those Notes of that holding that have the same terms. New Certificates shall only be issued against surrender of the existing Certificates to the Registrar or any Transfer Agent. In the case of a transfer of Registered Notes to a person who is already a holder of Registered Notes, a new Certificate representing the enlarged holding shall only be issued against surrender of the Certificate representing the existing holding.

(d) Delivery of New Certificates

Each new Certificate to be issued pursuant to Conditions 2(a), (b) or (c) shall be available for delivery within three business days of receipt of the request for exchange, form of transfer or Exercise Notice (as defined in Condition 6(e)) and surrender of the Certificate for exchange. Delivery of the new Certificate(s) shall be made at the specified office of the Transfer Agent or of the Registrar (as the case may be) to whom delivery or surrender of such request for exchange, form of transfer, Exercise Notice or Certificate shall have been made or, at the option of the holder making such delivery or surrender as aforesaid and as specified in the relevant request for exchange, form of transfer, Exercise Notice or otherwise in writing, be mailed by uninsured post at the risk of the holder entitled to the new Certificate to such address as may be so specified, unless such holder requests otherwise and pays in advance to the relevant Transfer Agent the costs of such other method of delivery and/or such insurance as it may specify. In this Condition 2(d), "business day" means a day, other than a Saturday or Sunday, on which banks are open for business in the place of the specified office of the relevant Transfer Agent or the Registrar (as the case may be).

(e) Exchange Free of Charge

Exchange and transfer of Notes and Certificates on registration, transfer, exercise of an option or partial redemption shall be effected without charge by or on behalf of the Issuer, the Registrar or the Transfer Agents, but upon payment of any tax or other governmental charges that may be imposed in relation to it (or the giving of such indemnity as the Registrar or the relevant Transfer Agent may require).

(f) Closed Periods

No Noteholder may require the transfer of a Registered Note to be registered or an Exchangeable Bearer Note to be exchanged for one or more Registered Note(s) (i) during the period of 15 days ending on the due date for redemption of that Note,

(ii) during the period of 15 days prior to any date on which Notes may be called for redemption by the Issuer at its option pursuant to Condition 6(d), (iii) after any such Note has been called for redemption or (iv) during the period of seven days ending on (and including) any Record Date. An Exchangeable Bearer Note called for redemption may, however, be exchanged for one or more Registered Note(s) in respect of which the Certificate is simultaneously surrendered not later than the relevant Record Date.

3 Guarantee and Status

(a) Guarantee

Each relevant Guarantor has unconditionally and irrevocably guaranteed the due payment of all sums expressed to be payable by the relevant Issuer under the Trust Deed, the Notes and Coupons. Each Guarantor's obligations in that respect (the "Guarantee") are contained in the Trust Deed. The Guarantors' obligations are joint and several.

(b) Status of Notes and Guarantees

The Notes and the Coupons relating to them constitute (subject to Condition 4) unsecured obligations of the Issuer and shall at all times rank *pari passu* and without any preference among themselves. The payment obligations of the Issuer under the Notes and the Coupons relating to them and of the relevant Guarantors under the Guarantee shall, save for such exceptions as may be provided by applicable legislation and subject to Condition 4, at all times rank at least equally with all other unsecured and unsubordinated indebtedness and monetary obligations of the Issuer and the relevant Guarantors, respectively, present and future.

(c) Guarantees by Subsidiaries

Sky shall procure that, as long as any Note comprising a Series issued by the Issuer remains outstanding:

(1) to the extent that, after the first Tranche of the Notes comprising such Series is issued, any Subsidiary that is not a Guarantor issues any guarantee of any Indebtedness for money borrowed in excess of £50,000,000; and

(2) for so long as any Subsidiary is or becomes a guarantor of Indebtedness pursuant to the terms of the 2005 Bonds, the 2008 Bonds, the 2012 Bonds or for moneys borrowed under the Revolving Credit Facility,

Sky will cause such Subsidiary to enter into a supplemental trust deed to the Trust Deed pursuant to which it shall agree irrevocably and unconditionally to guarantee on the terms *mutatis mutandis* of Clause 5 of the Trust Deed and on a *pari passu* basis with such Subsidiary's obligations as guarantor as are referred to in sub-paragraph (2) above the due and punctual payment of all sums expressed to be payable by the relevant Issuer under the Trust Deed, the Notes and Coupons when and as the same shall become due and payable.

In the event that any Guarantor (other than Sky Finance, Sky, Sky UK and Sky Subscribers) shall have been fully and unconditionally released from all obligations under guarantees of Indebtedness for money borrowed in excess of £50,000,000, such Guarantor shall be deemed released from all obligations under its Guarantee without any further action required on the part of the Trustee, any Noteholder or any Couponholder.

Any such Guarantor not so released shall remain irrevocably and unconditionally liable for its obligations under its Guarantee. The Trustee shall make available for delivery an appropriate instrument evidencing any such release upon receipt of (i) a written request from each of the relevant Issuer and such Guarantor, and (ii) a certificate signed by two directors of each of the Issuer and such Guarantor certifying as to such Guarantor's compliance with the terms of the Trust Deed.

4 Negative Pledge

None of Sky Finance, Sky and any Subsidiary will create, assume, incur or suffer to exist any Lien on all or any part of their respective present or future undertaking, assets, rights or revenues (including any uncalled capital) to secure Relevant Indebtedness without (a) contemporaneously therewith or prior thereto taking any and all action necessary to secure the Notes and the Coupons equally and rateably therewith or (b) providing such security for the Notes either as the Trustee in its absolute discretion deems not materially less beneficial to the interests of Noteholders or as is approved by an Extraordinary Resolution of Noteholders.

5 Interest and other Calculations

(a) Interest on Fixed Rate Notes

Each Fixed Rate Note bears interest on its outstanding nominal amount from the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date specified hereon. The amount of interest payable shall be determined in accordance with Condition 5(f).

(b) Interest on Floating Rate Notes

(i) *Interest Payment Dates*

Each Floating Rate Note bears interest on its outstanding nominal amount from the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date. The amount of interest payable shall be determined in accordance with Condition 5(f). Such Interest Payment Date(s) is/are either shown hereon as Specified Interest Payment Dates or, if no Specified Interest Payment Date(s) is/are shown hereon, Interest Payment Date shall mean each date which falls the number of months or other period shown hereon as the Interest Period after the preceding Interest Payment Date or, in the case of the first Interest Payment Date, after the Interest Commencement Date.

(ii) *Business Day Convention*

If any date referred to in these Conditions that is specified to be subject to adjustment in accordance with a Business Day Convention would otherwise fall on a day that is not a Business Day, then, if the Business Day Convention specified is (A) the Floating Rate Business Day Convention, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event (x) such date shall be brought forward to the immediately preceding Business Day and (y) each subsequent such date shall be the last Business Day of the month in which such date would have fallen had it not been subject to adjustment, (B) the Following Business Day Convention, such date shall be postponed to the next day that is a Business Day, (C) the Modified Following Business Day Convention, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event such date shall be brought forward to the immediately preceding Business Day or (D) the Preceding Business Day Convention, such date shall be brought forward to the immediately preceding Business Day.

(iii) *Rate of Interest*

The Rate of Interest in respect of Floating Rate Notes for each Interest Accrual Period shall be determined in the manner specified hereon and the provisions below relating to either ISDA Determination or Screen Rate Determination shall apply, depending upon which is specified hereon.

(A) ISDA Determination

Where ISDA Determination is specified hereon as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period shall be determined by the Calculation Agent as a rate equal to the relevant ISDA Rate. For the purposes of this sub-paragraph (A), "ISDA Rate"

for an Interest Accrual Period means a rate equal to the Floating Rate that would be determined by the Calculation Agent under a Swap Transaction under the terms of an agreement incorporating the ISDA Definitions and under which:

(x) the Floating Rate Option is as specified hereon;

(y) the Designated Maturity is a period specified hereon; and

(z) the relevant Reset Date is the first day of that Interest Accrual Period unless otherwise specified hereon.

For the purposes of this sub-paragraph (A), “Floating Rate”, “Calculation Agent”, “Floating Rate Option”, “Designated Maturity”, “Reset Date” and “Swap Transaction” have the meanings given to those terms in the ISDA Definitions.

(B) Screen Rate Determination

(x) Where Screen Rate Determination is specified hereon as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period will, subject as provided below, be either:

(1) the offered quotation; or

(2) the arithmetic mean of the offered quotations,

(expressed as a percentage rate per annum) for the Reference Rate which appears or appear, as the case may be, on the Relevant Screen Page as at either 11.00 a.m. (London time in the case of LIBOR or Brussels time in the case of EURIBOR) on the Interest Determination Date in question as determined by the Calculation Agent. If five or more of such offered quotations are available on the Relevant Screen Page, the highest (or, if there is more than one such highest quotation, one only of such quotations) and the lowest (or, if there is more than one such lowest quotation, one only of such quotations) shall be disregarded by the Calculation Agent for the purpose of determining the arithmetic mean of such offered quotations;

(y) if the Relevant Screen Page is not available or if, sub-paragraph (x)(1) applies and no such offered quotation appears on the Relevant Screen Page or if sub-paragraph (x)(2) above applies and fewer than two such offered quotations appear on the Relevant Screen Page in each case as at the time specified above, subject as provided below, the Calculation Agent shall request, if the Reference Rate is LIBOR, the principal London office of each of the Reference Banks or, if the Reference Rate is EURIBOR, the principal Euro-zone office of each of the Reference Banks, to provide the Calculation Agent with its offered quotation (expressed as a percentage rate per annum) for the Reference Rate if the Reference Rate is LIBOR, at approximately 11.00 a.m. (London time), or if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time) on the Interest Determination Date in question. If two or more of the Reference Banks provide the Calculation Agent with such offered quotations, the Rate of Interest for such Interest Accrual Period shall be the arithmetic mean of such offered quotations as determined by the Calculation Agent; and

(z) if paragraph (y) above applies and the Calculation Agent determines that fewer than two Reference Banks are providing offered quotations, subject as provided below, the Rate of Interest shall be the arithmetic mean of the rates per annum (expressed as a percentage) as communicated to (and at the request of) the Calculation Agent by the Reference Banks or any two or more of them, at which such banks were offered, if the Reference Rate is LIBOR, at approximately 11.00 a.m. (London time) or, if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time) on the relevant Interest Determination Date, deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate by leading banks in, if the Reference Rate is LIBOR, the London inter-bank market or, if the Reference Rate is EURIBOR, the Euro-zone inter-bank market, as the case may be, or, if fewer than

two of the Reference Banks provide the Calculation Agent with such offered rates, the offered rate for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, or the arithmetic mean of the offered rates for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, at which, if the Reference Rate is LIBOR, at approximately 11.00 a.m. (London time) or, if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time), on the relevant Interest Determination Date, any one or more banks (which bank or banks is or are in the opinion of the Issuer suitable for such purpose) informs the Calculation Agent it is quoting to leading banks in, if the Reference Rate is LIBOR, the London inter-bank market or, if the Reference Rate is EURIBOR, the Euro-zone inter-bank market, as the case may be, provided that, if the Rate of Interest cannot be determined for an Interest Accrual Period in accordance with the foregoing provisions of this paragraph, the Rate of Interest shall (until such time as an alternative method for determining the Rate of Interest shall be determined by the Issuer and a financial adviser (as appointed by the Issuer) with such determination being notified in writing by the Issuer to the Trustee and the Noteholders) be determined as at the last preceding Interest Determination Date (though substituting, where a different Margin or Maximum or Minimum Rate of Interest is to be applied to the relevant Interest Accrual Period from that which applied to the last preceding Interest Accrual Period, the Margin or Maximum or Minimum Rate of Interest relating to the relevant Interest Accrual Period, in place of the Margin or Maximum or Minimum Rate of Interest relating to that last preceding Interest Accrual Period).

(c) Zero Coupon Notes

Where a Note the Interest Basis of which is specified to be Zero Coupon is repayable prior to the Maturity Date and is not paid when due, the amount due and payable prior to the Maturity Date shall be the Early Redemption Amount of such Note. As from the Maturity Date, the Rate of Interest for any overdue principal of such a Note shall be a rate per annum (expressed as a percentage) equal to the Amortisation Yield (as described in Condition 6(b)(i)).

(d) Accrual of Interest

Interest shall cease to accrue on each Note on the due date for redemption unless, upon due presentation, payment is improperly withheld or refused, in which event interest shall continue to accrue (both before and after judgment) at the Rate of Interest in the manner provided in this Condition 5 to the Relevant Date (as defined in Condition 8).

(e) Margin, Maximum/Minimum Rates of Interest and Redemption Amounts and Rounding

(i) If any Margin is specified hereon (either (x) generally, or (y) in relation to one or more Interest Accrual Periods), an adjustment shall be made to all Rates of Interest, in the case of (x), or the Rates of Interest for the specified Interest Accrual Periods, in the case of (y), calculated in accordance with Condition 5(b) above by adding (if a positive number) or subtracting the absolute value (if a negative number) of such Margin, subject always to the next paragraph.

(ii) If any Maximum or Minimum Rate of Interest or Redemption Amount is specified hereon, then any Rate of Interest or Redemption Amount shall be subject to such maximum or minimum, as the case may be.

(iii) For the purposes of any calculations required pursuant to these Conditions (unless otherwise specified), (x) all percentages resulting from such calculations shall be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with halves being rounded up), (y) all figures shall be rounded to seven significant figures (with halves being rounded up) and (z) all currency amounts that fall due and payable shall be rounded to the nearest unit of such currency (with halves being rounded up), save in the case of yen, which shall be rounded down to the nearest yen. For these purposes “unit” means the lowest amount of such currency that is available as legal tender in the country or countries, as the case may be, of such currency.

(f) Calculations

The amount of interest payable per Calculation Amount in respect of any Note for any Interest Accrual Period shall be equal to the product of the Rate of Interest, the Calculation Amount specified hereon, and the Day Count Fraction for such Interest Accrual Period, unless an Interest Amount (or a formula for its calculation) is applicable to such Interest Accrual Period, in which case the amount of interest payable per Calculation Amount in respect of such Note for such Interest Accrual Period shall equal such Interest Amount (or be calculated in accordance with such formula). Where any Interest Period comprises two or more Interest Accrual Periods, the amount of interest payable per Calculation Amount in respect of such Interest Period shall be the sum of the Interest Amounts payable in respect of each of those Interest Accrual Periods. In respect of any other period for which interest is required to be calculated, the provisions above shall apply save that the Day Count Fraction shall be for the period for which interest is required to be calculated.

(g) Determination and Publication of Rates of Interest, Interest Amounts, Final Redemption Amounts, Early Redemption Amounts and Optional Redemption Amounts

The Calculation Agent shall, as soon as practicable on each Interest Determination Date, or such other time on such date as the Calculation Agent may be required to calculate any rate or amount, obtain any quotation or make any determination or calculation, determine such rate and calculate the Interest Amounts for the relevant Interest Accrual Period, calculate the Final Redemption Amount, Early Redemption Amount or Optional Redemption Amount, obtain such quotation or make such determination or calculation, as the case may be, and cause the Rate of Interest and the Interest Amounts for each Interest Accrual Period and the relevant Interest Payment Date and, if required to be calculated, the Final Redemption Amount, Early Redemption Amount or any Optional Redemption Amount to be notified to the Trustee, the Issuer, each of the Paying Agents, the Noteholders, any other Calculation Agent appointed in respect of the Notes that is to make a further calculation upon receipt of such information and, if the Notes are listed on a stock exchange and the rules of such exchange or other relevant authority so require, such exchange or other relevant authority as soon as possible after their determination but in no event later than (i) the commencement of the relevant Interest Period, if determined prior to such time, in the case of notification to such exchange of a Rate of Interest and Interest Amount, or (ii) in all other cases, the fourth Business Day after such determination. Where any Interest Payment Date or Interest Period Date is subject to adjustment pursuant to Condition 5(b)(ii), the Interest Amounts and the Interest Payment Date so published may subsequently be amended (or appropriate alternative arrangements made with the consent of the Trustee by way of adjustment) without notice in the event of an extension or shortening of the Interest Period. If the Notes become due and payable under Condition 10, the accrued interest and the Rate of Interest payable in respect of the Notes shall nevertheless continue to be calculated as previously in accordance with this Condition but no publication of the Rate of Interest or the Interest Amount so calculated need be made unless the Trustee otherwise requires. The determination of any rate or amount, the obtaining of each quotation and the making of each determination or calculation by the Calculation Agent(s) shall (in the absence of manifest error) be final and binding upon all parties.

(h) Calculation Agent

The Issuer shall procure that there shall at all times be one or more Calculation Agents if provision is made for them hereon and for so long as any Note is outstanding (as defined in the Trust Deed). Where more than one Calculation Agent is appointed in respect of the Notes, references in these Conditions to the Calculation Agent shall be construed as each Calculation Agent performing its respective duties under the Conditions. If the Calculation Agent is unable or unwilling to act as such or if the Calculation Agent fails duly to establish the Rate of Interest for an Interest Accrual Period or to calculate any Interest Amount, Final Redemption Amount, Early Redemption Amount or Optional Redemption Amount, as the case may be, or to comply with any other requirement, the Issuer shall appoint a leading bank or financial institution

engaged in the interbank market that is most closely connected with the calculation or determination to be made by the Calculation Agent (acting through its principal London office or any other office actively involved in such market) to act as such in its place. The Calculation Agent may not resign its duties without a successor having been appointed as aforesaid.

(i) Determinations of Calculation Agent binding

All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of this Condition 5 by the Calculation Agent shall (in the absence of manifest error, wilful default or negligence) be final and binding upon all parties and (in the absence as aforesaid) no liability to the Noteholders, the Issuer or any other party shall attach to the Calculation Agent in connection with the exercise or non-exercise by it of any of its powers, duties and discretions hereunder.

6 Redemption, Purchase and Options

(a) Final Redemption

Unless previously redeemed, purchased and cancelled as provided in this Condition 6, each Note shall be finally redeemed on the Maturity Date specified hereon at its Final Redemption Amount (which, unless otherwise provided hereon, is its nominal amount).

(b) Early Redemption

(i) *Zero Coupon Notes*

(A) The Early Redemption Amount payable in respect of any Zero Coupon Note, upon redemption of such Note pursuant to Condition 6(c) or upon it becoming due and payable as provided in Condition 10 shall be the "Amortised Face Amount" (calculated as provided below) of such Note unless otherwise specified hereon.

(B) Subject to the provisions of sub-paragraph (C) below, the Amortised Face Amount of any such Note shall be the scheduled Final Redemption Amount of such Note on the Maturity Date discounted at a rate per annum (expressed as a percentage) equal to the Amortisation Yield (which, if none is shown hereon, shall be such rate as would produce an Amortised Face Amount equal to the issue price of the Notes if they were discounted back to their issue price on the Issue Date) compounded annually.

(C) If the Early Redemption Amount payable in respect of any such Note upon its redemption pursuant to Condition 6(c) or upon it becoming due and payable as provided in Condition 10 is not paid when due, the Early Redemption Amount due and payable in respect of such Note shall be the Amortised Face Amount of such Note as defined in sub-paragraph (B) above, except that such sub-paragraph shall have effect as though the date on which the Note becomes due and payable were the Relevant Date. The calculation of the Amortised Face Amount in accordance with this sub-paragraph shall continue to be made (both before and after judgment) until the Relevant Date, unless the Relevant Date falls on or after the Maturity Date, in which case the amount due and payable shall be the scheduled Final Redemption Amount of such Note on the Maturity Date together with any interest that may accrue in accordance with Condition 5(c).

Where such calculation is to be a made for a period of less than one year, it shall be made on the basis of the Day Count Fraction shown hereon.

(ii) Other Notes

The Early Redemption Amount payable in respect of any Note (other than Notes described in (i) above), upon redemption of such Note pursuant to Condition 6(c) or upon it becoming due and payable as provided in Condition 10, shall be the Final Redemption Amount unless otherwise specified hereon.

(c) Redemption for Taxation Reasons

The Notes may be redeemed at the option of the Issuer in whole, but not in part, on any Interest Payment Date (if this Note is a Floating Rate Note) or at any time (if this Note is not a Floating Rate Note), on giving not less than 30 nor more than 60 days' notice to the Noteholders (which notice shall be irrevocable) at their Early Redemption Amount (as described in Condition 6(b) above) (together with interest accrued to the date fixed for redemption), if (i) the Issuer (or, if the Guarantee were called, the relevant Guarantor(s)) satisfies or satisfy, as the case may be, the Trustee immediately before the giving of such notice that it has or will or they have or will, as the case may be, become obliged to pay additional amounts as described under Condition 8 as a result of any change in, or amendment to, the laws or regulations of the United Kingdom or any political subdivision or any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations, which change or amendment becomes effective on or after the date on which the first Tranche of the Notes is issued, and (ii) such obligation cannot be avoided by the Issuer (or the relevant Guarantor(s), as the case may be) taking reasonable measures available to it or them, as the case may be, provided, however, that no such notice of redemption shall be given earlier than:

(i) where the Notes may be redeemed at any time, 90 days prior to the earliest date on which the Issuer or the relevant Guarantor would be obliged to pay such additional amounts if a payment in respect of the Notes were then due or (as the case may be) a demand under the Guarantee of the Notes were then made; or

(ii) where the Notes may be redeemed only on an Interest Payment Date, 60 days prior to the Interest Payment Date occurring immediately before the earliest date on which the Issuer or the relevant Guarantor would be obliged to pay such additional amounts if a payment in respect of the Notes were then due or (as the case may be) a demand under the Guarantee of the Notes were then made.

Before the publication of any notice of redemption pursuant to this paragraph, the Issuer shall deliver to the Trustee a certificate signed by two directors of the Issuer (or the relevant Guarantor(s), as the case may be) stating that the obligation referred to in (i) above cannot be avoided by the Issuer (or the relevant Guarantor(s), as the case may be) taking reasonable measures available to it or them, as the case may be, and the Trustee shall be entitled to accept such certificate as sufficient evidence of the satisfaction of the condition precedent set out in (ii) above in which event it shall be conclusive and binding on Noteholders and Couponholders.

(d) Redemption at the Option of the Issuer

If Call Option is specified hereon, the Issuer may, on giving not less than 15 nor more than 30 days' irrevocable notice to the Noteholders (or such other notice period as may be specified hereon) redeem all or, if so provided, some of the Notes on any Optional Redemption Date. Any such redemption of Notes shall be at their Optional Redemption Amount specified hereon together with interest accrued to the date fixed for redemption. Any such redemption or exercise must relate to Notes of a nominal amount at least equal to the Minimum Redemption Amount to be redeemed specified hereon and no greater than the Maximum Redemption Amount to be redeemed specified hereon.

All Notes in respect of which any such notice is given shall be redeemed on the date specified in such notice in accordance with this Condition.

In the case of a partial redemption, the notice to Noteholders shall also contain the certificate numbers of the Bearer Notes, or, in the case of Registered Notes, shall specify the nominal amount of Registered Notes drawn and the holder(s) of such Registered Notes, to be redeemed, which shall have been drawn in such place as the Trustee may approve and in such manner as it deems appropriate, subject to compliance with any applicable laws and stock exchange or other relevant authority requirements.

If Make-Whole Amount is specified hereon as the Optional Redemption Amount, the Optional Redemption Amount shall be equal to the higher of (i) 100 per cent. of the nominal amount of the Notes to be redeemed

and (ii) the nominal amount of the Notes to be redeemed multiplied by the price (expressed as a percentage and rounded to four decimal places with 0.00005 being rounded upwards) at which the Gross Redemption Yield on such Notes on the Reference Date is equal to the Gross Redemption Yield at the Quotation Time on the Reference Date of the Reference Bond, plus the Redemption Margin, all as determined by the Financial Adviser.

In this Condition 6(d):

"Financial Adviser" means an independent financial adviser selected and appointed by the Issuer after consultation with the Trustee.

"Gross Redemption Yield" means a yield calculated in accordance with generally accepted market practice at such time, as advised to the Issuer and Trustee by the Financial Adviser.

"Quotation Time" has the meaning as specified hereon.

"Redemption Margin" has the meaning as specified hereon.

"Reference Bond" shall be the security as specified hereon or, where the Financial Adviser advises the Issuer and Trustee that, for reasons of illiquidity or otherwise, such security is not appropriate for such purpose, such other government stock as such Financial Adviser may recommend.

"Reference Date" shall be set out in the relevant notice of redemption.

All notifications, opinions, determinations, certifications, calculations, quotations and decisions given, expressed, made or obtained for the purposes of this Condition 6(d) by the Financial Adviser, shall (in the absence of negligence, wilful default or manifest error) be binding on the Issuer, the Trustee, the Paying Agents, the Registrar, the Transfer Agents and all holders.

(e) Redemption at the Option of Noteholders

If Put Option is specified hereon, the Issuer shall, at the option of the holder of any such Note, upon the holder of such Note giving not less than 15 nor more than 30 days' notice to the Issuer (or such other notice period as may be specified hereon) redeem such Note on the Optional Redemption Date(s) at its Optional Redemption Amount together with interest accrued to the date fixed for redemption.

To exercise such option the holder must deposit (in the case of a Bearer Note) such Note (together with all unmatured Coupons and unexchanged Talons) with any Paying Agent or (in the case of a Registered Note) the Certificate representing such Note(s) with the Registrar or any Transfer Agent at its specified office, together with a duly completed option exercise notice ("Exercise Notice") in the form obtainable from any Paying Agent, the Registrar or any Transfer Agent (as applicable) within the notice period. No Note or Certificate so deposited and option so exercised may be withdrawn (except as provided in the Agency Agreement) without the prior consent of the Issuer.

(f) [Intentionally left blank]

(g) Redemption at the Option of Noteholders on a Change of Control Put Event

If a Change of Control Put Option is specified hereon and a Change of Control Put Event occurs, the holder of each Note will have the option (a "Change of Control Put Option") (unless prior to the giving of the relevant Change of Control Put Event Notice (as defined below) the Issuer has given notice of redemption under Condition 6(c), 6(d) or 6(f)) to require the Issuer to redeem or, at the Issuer's option, purchase (or procure the purchase of) that Note on the Optional Redemption Date (as defined below) at the Optional Redemption Amount specified hereon together with interest accrued to (but excluding) the Optional Redemption Date.

A "Change of Control Put Event" will be deemed to occur if:

(i) any person or any persons acting in concert (as defined in the City Code on Takeovers and Mergers), other than a holding company (as defined in Section 1159 of the Companies Act 2006 (as amended)) whose shareholders are or are to be substantially similar to the pre-existing shareholders of the Issuer, shall become interested (within the meaning of Part 22 of the Companies Act 2006 (as amended)) in (A) more than 50 per cent. of the issued or allotted ordinary share capital of the Issuer or (B) shares in the capital of the Issuer carrying more than 50 per cent. of the voting rights normally exercisable at a general meeting of the Issuer (each such event being, a "Change of Control"); and

(ii) on the date (the "Relevant Announcement Date") that is the earlier of (1) the date of the first public announcement of the relevant Change of Control and (2) the date of the earliest Relevant Potential Change of Control Announcement (if any), the Notes carry from any Rating Agency:

(A) an investment grade credit rating (*Baa3/BBB-, or equivalent, or better*), and such rating from any Rating Agency is, within the Change of Control Period, either downgraded to a non-investment grade credit rating (*Ba1/BB+, or equivalent, or worse*) (a "Non-Investment Grade Rating") or withdrawn and is not, within the Change of Control Period, subsequently (in the case of a downgrade) upgraded or (in the case of a withdrawal) reinstated to an investment grade credit rating by such Rating Agency; or

(B) a Non-Investment Grade Rating and such rating from any Rating Agency is, within the Change of Control Period, either downgraded by one or more notches (*by way of example, Ba1 to Ba2 being one notch*) or withdrawn and is not, within the Change of Control Period, subsequently (in the case of a downgrade) upgraded or (in the case of a withdrawal) reinstated to its earlier credit rating or better by such Rating Agency; or

(C) no credit rating and a Negative Rating Event also occurs within the Change of Control Period,

provided that if at the time of the occurrence of the Change of Control the Notes carry a credit rating from more than one Rating Agency, at least one of which is investment grade, then sub paragraph (A) will apply; and

(iii) in making any decision to downgrade or withdraw a credit rating pursuant to paragraphs (A) and (B) above or not to award a credit rating of at least investment grade as described in paragraph (ii) of the definition of Negative Rating Event, the relevant Rating Agency announces publicly or confirms in writing to the Issuer that such decision(s) resulted, in whole or in part, from the occurrence of the Change of Control or the Relevant Potential Change of Control Announcement.

Within 30 days after the Issuer becoming aware that a Change of Control Put Event has occurred the Issuer shall notify the Trustee in writing and shall, and if so requested by the holders of at least one-quarter in principal amount of the Notes then outstanding or if so directed by an Extraordinary Resolution of the Noteholders, the Trustee shall, (subject to the Trustee being indemnified and/or secured and/or prefunded to its satisfaction) give notice (a "Change of Control Put Event Notice") to the Noteholders in accordance with Condition 16 specifying the nature of the Change of Control Put Event and the procedure for exercising the Change of Control Put Option.

To exercise the Change of Control Put Option, the holder of a Bearer Note must deliver such Note at the specified office of any Paying Agent at any time during normal business hours of such Paying Agent falling within the period (the "Change of Control Put Period") of 45 days after a Change of Control Put Event Notice is given, accompanied by a duly signed and completed notice of exercise in the form (for the time being current) obtainable from the specified office of any Paying Agent (an "Exercise Notice"). The Note should be delivered together with all Coupons appertaining thereto maturing after the date which is seven days after the expiration of the Change of Control Put Period (the "Optional Redemption Date"), failing which the Paying Agent will require payment from or on behalf of the Noteholder of an amount equal to the face value of any missing such Coupon. Any amount so paid will be reimbursed by the Paying Agent to the Noteholder against presentation and surrender of the relevant missing Coupon (or any

replacement therefor issued pursuant to Condition 14) at any time after such payment, but before the expiry of the period of five years from the date on which such Coupon would have become due, but not thereafter. The Paying Agent to which such Note and Exercise Notice are delivered will issue to the Noteholder concerned a non-transferable receipt in respect of the Note so delivered. Payment in respect of any Note so delivered will be made, if the holder duly specified a bank account in the Exercise Notice to which payment is to be made, on the Optional Redemption Date by transfer to that bank account and, in every other case, on or after the Optional Redemption Date against presentation and surrender or (as the case may be) endorsement of such receipt at the specified office of any Paying Agent. An Exercise Notice, once given, shall be irrevocable. For the purposes of these Conditions, receipts issued pursuant to this Condition 6(g) shall be treated as if they were Notes.

To exercise the Change of Control Put Option, the holder of a Registered Note must deposit the Certificate evidencing such Note(s) with the Registrar or any Transfer Agent at its specified office, together with a duly signed and completed Exercise Notice obtainable from the Registrar or any Transfer Agent within the Change of Control Put Period. No Certificate so deposited and option so exercised may be withdrawn without the prior consent of the Issuer. Payment in respect of any Certificate so deposited will be made, if the holder duly specified a bank account in the Exercise Notice to which payment is to be made, on the Optional Redemption Date by transfer to that bank account and, in every other case, by cheque drawn on a bank and mailed to the holder (or to the first named of joint holders) of such Note at its address appearing in the Register.

The Issuer shall redeem or purchase (or procure the purchase of) the Notes in respect of which the Change of Control Put Option has been validly exercised in accordance with the provisions of this Condition 6(g) on the Optional Redemption Date unless previously redeemed (or purchased) and cancelled.

Any Exercise Notice shall be irrevocable except where prior to the Optional Redemption Date an Event of Default shall have occurred and be continuing in which event such holder, at its option, may elect by notice to the Issuer to withdraw the Exercise Notice and instead to declare such Note forthwith due and payable pursuant to Condition 10.

If 80 per cent. or more in principal amount of the Notes then outstanding have been redeemed or purchased pursuant to this Condition 6(g), the Issuer may, on giving not less than 30 nor more than 60 days' notice to the Noteholders (such notice being given within 30 days after the Optional Redemption Date), redeem or purchase (or procure the purchase of), at its option, all but not some only of the remaining outstanding Notes at their principal amount, together with interest accrued to (but excluding) the date fixed for such redemption or purchase.

If the rating designations employed by any of Moody's, S&P or Fitch are changed from those which are described in paragraph (ii) of the definition of "Change of Control Put Event", or if a rating is procured from a Substitute Rating Agency, the Issuer shall determine, with the agreement of the Trustee, the rating designations of Moody's, S&P or Fitch or such Substitute Rating Agency (as appropriate) as are most equivalent to the prior rating designations of Moody's, S&P or Fitch and this Condition 6(g) shall be construed accordingly. Such determinations shall be binding on all parties.

The Trustee, the Paying Agents and the Transfer Agents are under no obligation to ascertain whether a Change of Control Put Event or Change of Control or any event which could lead to the occurrence of or could constitute a Change of Control Put Event or Change of Control has occurred, or to seek any confirmation from any Rating Agency pursuant to the definition of Negative Rating Event, and, until they shall have actual knowledge or express notice pursuant to the Trust Deed or the Agency Agreement, as the case may be, to the contrary, the Trustee, the Paying Agents and the Transfer Agents may assume that no Change of Control Put Event or Change of Control or other such event has occurred.

(h) Purchases

The Issuer, the relevant Guarantors and any of their subsidiaries may at any time purchase Notes (provided that all unmatured Coupons and unexchanged Talons relating thereto are attached thereto or surrendered therewith) in the open market or otherwise at any price.

(i) Cancellation

All Notes purchased by or on behalf of the Issuer, the relevant Guarantors or any of their subsidiaries may be surrendered for cancellation, in the case of a Bearer Note, by surrendering such Note together with all unmatured Coupons and all unexchanged Talons to the Issuing and Paying Agent and, in the case of a Registered Note, by surrendering the Certificate representing such Notes to the Registrar and, in each case, if so surrendered, shall, together with all Notes redeemed by the Issuer, be cancelled forthwith (together with all unmatured Coupons and unexchanged Talons attached thereto or surrendered therewith). Any Notes so surrendered for cancellation may not be reissued or resold and the obligations of the Issuer and the relevant Guarantors in respect of any such Notes shall be discharged.

7 Payments and Talons

(a) Bearer Notes

Payments of principal and interest in respect of Bearer Notes shall, subject as mentioned below, be made against presentation and surrender of the Notes (in the case of all other payments of principal and, in the case of interest, as specified in Condition 7(f)(v)) or Coupons (in the case of interest, save as specified in Condition 7(f)(ii)), as the case may be, at the specified office of any Paying Agent outside the United States by a cheque payable in the relevant currency drawn on, or, at the option of the holder, by transfer to an account denominated in such currency with, a Bank. For the purpose of this Condition 7, “Bank” means a bank in the principal financial centre for such currency or, in the case of euro, a bank which has access to the TARGET System.

(b) Registered Notes

(i) Payments of principal in respect of Registered Notes shall be made against presentation and surrender of the relevant Certificates at the specified office of any of the Transfer Agents or of the Registrar and in the manner provided in paragraph (ii) below.

(ii) Interest on Registered Notes shall be paid to the person shown on the Register at the close of business on the fifteenth day before the due date for payment thereof (the “Record Date”). Payments of interest on each Registered Note shall be made in the relevant currency by cheque drawn on a Bank and mailed to the holder (or to the first named of joint holders) of such Note at its address appearing in the Register. Upon application by the holder to the specified office of the Registrar or any Transfer Agent before the Record Date, such payment of interest may be made by transfer to an account in the relevant currency maintained by the payee with a Bank.

(c) Payments in the United States

Notwithstanding the foregoing, if any Bearer Notes are denominated in U.S. dollars, payments in respect thereof may be made at the specified office of any Paying Agent in New York City in the same manner as aforesaid if (i) the Issuer shall have appointed Paying Agents with specified offices outside the United States with the reasonable expectation that such Paying Agents would be able to make payment of the amounts on the Notes in the manner provided above when due, (ii) payment in full of such amounts at all such offices is illegal or effectively precluded by exchange controls or other similar restrictions on payment or receipt of such amounts and (iii) such payment is then permitted by United States law, without involving, in the opinion of the Issuer, any adverse tax consequence to the Issuer.

(d) Payments subject to Fiscal Laws

Payments will be subject in all cases to any fiscal or other laws and regulations applicable thereto in the place of payment, but without prejudice to the provisions of Condition 8. No commissions or expenses shall be charged to the Noteholders or Couponholders in respect of such payments.

(e) Appointment of Agents

The Issuing and Paying Agent, the Paying Agents, the Registrar, the Transfer Agents and the Calculation Agent initially appointed by the Issuer and the relevant Guarantors and their respective specified offices are listed below. The Issuing and Paying Agent, the Paying Agents, the Registrar, the Transfer Agents and the Calculation Agent act solely as agents of the Issuer and the relevant Guarantors and do not assume any obligation or relationship of agency or trust for or with any Noteholder or Couponholder. The Issuer and the relevant Guarantors reserve the right at any time with the approval of the Trustee to vary or terminate the appointment of the Issuing and Paying Agent, any other Paying Agent, the Registrar, any Transfer Agent or the Calculation Agent(s) and to appoint additional or other Paying Agents or Transfer Agents, provided that the Issuer shall at all times maintain (i) an Issuing and Paying Agent, (ii) a Registrar in relation to Registered Notes, (iii) a Transfer Agent in relation to Registered Notes, (iv) one or more Calculation Agent(s) where the Conditions so require, (v) Paying Agents having specified offices in at least two major European cities, (vi) such other agents as may be required by any other stock exchange on which the Notes may be listed in each case, as approved by the Trustee and (vii) a Paying Agent with a specified office in a European Union Member State that will not be obliged to withhold or deduct tax pursuant to any law implementing European Council Directive 2003/48/EC (as amended from time to time) or any other Directive implementing the conclusions of the ECOFIN Council meeting of 26-27 November 2000.

In addition, the Issuer and the relevant Guarantors shall forthwith appoint a Paying Agent in New York City in respect of any Bearer Notes denominated in U.S. dollars in the circumstances described in paragraph (c) above.

Notice of any such change or any change of any specified office shall promptly be given to the Noteholders.

(f) Unmatured Coupons and unexchanged Talons

(i) Upon the due date for redemption of Bearer Notes which comprise Fixed Rate Notes they should be surrendered for payment together with all unmatured Coupons (if any) relating thereto, failing which an amount equal to the face value of each missing unmatured Coupon (or, in the case of payment not being made in full, that proportion of the amount of such missing unmatured Coupon that the sum of principal so paid bears to the total principal due) shall be deducted from the Final Redemption Amount, Early Redemption Amount or Optional Redemption Amount, as the case may be, due for payment. Any amount so deducted shall be paid in the manner mentioned above against surrender of such missing Coupon within a period of 10 years from the Relevant Date for the payment of such principal (whether or not such Coupon has become void pursuant to Condition 9).

(ii) Upon the due date for redemption of any Bearer Note comprising a Floating Rate Note, unmatured Coupons relating to such Note (whether or not attached) shall become void and no payment shall be made in respect of them.

(iii) Upon the due date for redemption of any Bearer Note, any unexchanged Talon relating to such Note (whether or not attached) shall become void and no Coupon shall be delivered in respect of such Talon.

(iv) Where any Bearer Note that provides that the relative unmatured Coupons are to become void upon the due date for redemption of those Notes is presented for redemption without all unmatured Coupons, and

where any Bearer Note is presented for redemption without any unexchanged Talon relating to it, redemption shall be made only against the provision of such indemnity as the Issuer may require.

(v) If the due date for redemption of any Note is not a due date for payment of interest, interest accrued from the preceding due date for payment of interest or the Interest Commencement Date, as the case may be, shall only be payable against presentation (and surrender if appropriate) of the relevant Bearer Note or Certificate representing it, as the case may be. Interest accrued on a Note that only bears interest after its Maturity Date shall be payable on redemption of such Note against presentation of the relevant Note or Certificate representing it, as the case may be.

(g) Talons

On or after the Interest Payment Date for the final Coupon forming part of a Coupon sheet issued in respect of any Bearer Note, the Talon forming part of such Coupon sheet may be surrendered at the specified office of the Issuing and Paying Agent in exchange for a further Coupon sheet (and if necessary another Talon for a further Coupon sheet) (but excluding any Coupons that may have become void pursuant to Condition 9).

(h) Non-Business Days

If any date for payment in respect of any Note or Coupon is not a business day, the holder shall not be entitled to payment until the next following business day nor to any interest or other sum in respect of such postponed payment. In this paragraph, "business day" means a day (other than a Saturday or a Sunday) on which banks and foreign exchange markets are open for business in the relevant place of presentation, in such jurisdictions as shall be specified as "Financial Centres" hereon and:

(i) (in the case of a payment in a currency other than euro) where payment is to be made by transfer to an account maintained with a bank in the relevant currency, on which foreign exchange transactions may be carried on in the relevant currency in the principal financial centre of the country of such currency; or

(ii) (in the case of a payment in euro) which is a TARGET Business Day.

8 Taxation

All payments of principal and interest by or on behalf of the Issuer or the relevant Guarantors in respect of the Notes and the Coupons or under the Guarantee shall be made free and clear of, and without withholding or deduction for, any taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or within the United Kingdom or any authority therein or thereof having power to tax, unless such withholding or deduction is required by law. In that event, the Issuer or, as the case may be, the relevant Guarantors shall pay such additional amounts as shall result in receipt by the Noteholders and Couponholders of such amounts as would have been received by them had no such withholding or deduction been required, except that no such additional amounts shall be payable with respect to any Note or Coupon:

(a) Other connection

to, or to a third party on behalf of, a holder who is liable to such taxes, duties, assessments or governmental charges in respect of such Note or Coupon by reason of his having some connection with the United Kingdom other than the mere holding of the Note or Coupon; or

(b) Presentation more than 30 days after the Relevant Date

presented (or in respect of which the Certificate representing it is presented) for payment more than 30 days after the Relevant Date except to the extent that the holder of it would have been entitled to such additional amounts on presenting it for payment on the thirtieth day; or

(c) Payment to individuals

where such withholding or deduction is imposed on a payment to an individual and is required to be made pursuant to any law implementing European Council Directive 2003/48/EC (as amended from time to time) or any other Directive implementing the conclusions of the ECOFIN Council meeting of 26-27 November 2000; or

(d) Payment by another Paying Agent

(except in the case of Registered Notes) presented for payment by or on behalf of a holder who would have been able to avoid such withholding or deduction by presenting the relevant Note or Coupon to another Paying Agent in a Member State of the European Union.

Notwithstanding anything to the contrary in the preceding paragraph, none of the Issuer, any Paying Agent or any other person shall be required to pay any additional amounts with respect to any withholding or deduction imposed on or in respect of any Note pursuant to Section 1471 to 1474 of the U.S. Internal Revenue Code of 1986 ("FATCA"), any treaty, law, regulation or other official guidance implementing FATCA, or any agreement between the Issuer, a Paying Agent or any other person and the United States, any other jurisdiction, or any authority of any of the foregoing implementing FATCA.

As used in these Conditions, "Relevant Date" in respect of any Note or Coupon means the date on which payment in respect of it first becomes due or (if any amount of the money payable is improperly withheld or refused) the date on which payment in full of the amount outstanding is made or (if earlier) the date seven days after that on which notice is duly given to the Noteholders that, upon further presentation of the Note (or relevant Certificate) or Coupon being made in accordance with the Conditions, such payment will be made, provided that payment is in fact made upon such presentation. References in these Conditions to (i) "principal" shall be deemed to include any premium payable in respect of the Notes, all Final Redemption Amounts, Early Redemption Amounts, Optional Redemption Amounts, Amortised Face Amounts and all other amounts in the nature of principal payable pursuant to Condition 6 or any amendment or supplement to it, (ii) "interest" shall be deemed to include all Interest Amounts and all other amounts payable pursuant to Condition 5 or any amendment or supplement to it and (iii) "principal" and/or "interest" shall be deemed to include any additional amounts that may be payable under this Condition or any undertaking given in addition to or in substitution for it under the Trust Deed.

9 Prescription

Claims against the Issuer and/or the relevant Guarantors for payment in respect of the Notes and Coupons (which, for this purpose, shall not include Talons) shall be prescribed and become void unless made within 10 years (in the case of principal) or five years (in the case of interest) from the appropriate Relevant Date in respect of them.

10 Events of Default

If any of the following events ("Events of Default") occurs and is continuing, the Trustee at its discretion may, and if so requested by holders of at least one-quarter in nominal amount of the Notes then outstanding or if so directed by an Extraordinary Resolution shall, subject in each case to being indemnified and/or secured and/or prefunded to its satisfaction, give notice to the Issuer that the Notes are, and they shall immediately become, due and payable at their Early Redemption Amount together with accrued interest:

(a) Non-Payment

default is made for more than (i) 30 days (in the case of interest or payments of principal in respect of Zero Coupon Notes other than any payment in respect of principal due prior to the Maturity Date of a Zero Coupon Note as a result of the exercise of any call or put option) or (ii) seven days (in the case of principal including any payment in respect of principal due prior to the Maturity Date of a Zero Coupon Note as a result of the exercise of any call or put option but not other payments of principal on Zero Coupon Notes),

in each case in the payment on the due date of interest or principal, as the case may be, in respect of any of the Notes; or

(b) Breach of Other Obligations

the Issuer or any relevant Guarantor does not perform or comply with any one or more of its other obligations in the Notes or the Trust Deed which default is incapable of remedy or, if in the opinion of the Trustee capable of remedy, is not in the opinion of the Trustee remedied within 60 days after notice of such default shall have been given to the Issuer or such Guarantor by the Trustee; or

(c) Cross-Acceleration

any other present or future Indebtedness for money borrowed or raised by the Issuer or the relevant Guarantors or any Subsidiary becomes due and payable prior to its stated maturity by reason of any event of default (howsoever described) without, except in the case of Indebtedness in respect of the 2005 Bonds, the 2008 Bonds or the 2012 Bonds, such Indebtedness having been discharged, or such acceleration having been rescinded or annulled within a period of 10 days after the date on which the Issuer gives notice to the Trustee of such acceleration as required by the Trust Deed, provided that the aggregate amount of the relevant Indebtedness equals or exceeds the greater of U.S.$75,000,000 or its equivalent and 5 per cent. of Consolidated Net Tangible Assets (in each case as reasonably determined by the Trustee); or

(d) Failure to pay other Indebtedness on Maturity

the failure to pay at stated maturity (or, if later, the expiration of any relevant grace period) any other Indebtedness for money borrowed of the Issuer or any Guarantor or any Subsidiary provided that (i) except in the case of Indebtedness in respect of the 2005 Bonds, the 2008 Bonds or the 2012 Bonds, no Event of Default shall occur under this paragraph unless the relevant amount remains unpaid for a period of 10 days after the date on which the Issuer gives notice to the Trustee of such failure to pay as required by the Trust Deed and (ii) the aggregate amount of the relevant Indebtedness equals or exceeds the greater of U.S.$75,000,000 or its equivalent and 5 per cent. of Consolidated Net Tangible Assets (in each case as reasonably determined by the Trustee); or

(e) Enforcement Proceedings

a final judgment (from which no appeal is possible) is given or order made against the Issuer and/or any relevant Guarantors by a court of competent jurisdiction in an aggregate amount in excess of the greater of U.S.$75,000,000 or its equivalent and 5 per cent. of Consolidated Net Tangible Assets (in each case as reasonably determined by the Trustee) and is not discharged or stayed within 60 days; or

(f) Insolvency

the entry by a competent court having jurisdiction of (i) a decree, judgment or order for relief in respect of the Issuer or any Guarantor in an involuntary case or proceeding (including winding up proceedings) under any applicable United Kingdom insolvency law or (ii) a decree, judgment or order adjudging the Issuer or any Guarantor insolvent, or approving as properly filed a petition seeking the arrangement, adjustment or composition of or in respect of the Issuer or any Guarantor under any applicable United Kingdom insolvency law, or appointing a receiver, liquidator, administrator or other similar official of the Issuer or any Guarantor or of all or, in the opinion of the Trustee, any substantial part of their respective property, and the continuance of any such decree, judgment or order for relief referred to in (i) above or any such other decree, judgment or order referred to in (ii) above unstayed and in effect for a period of 60 consecutive days; or

(g) Consent to Insolvency

the commencement by the Issuer or the Guarantors of a voluntary case or proceeding under any applicable United Kingdom insolvency law or the commencement of any insolvency case or proceeding, or the

consent by the Issuer or any Guarantor to the entry of a decree or order for relief in respect of the Issuer or the Guarantors in an involuntary case or proceeding under any applicable United Kingdom insolvency law or to the commencement of any insolvency case or proceeding against them, or the consent by any of them to the appointment of or taking possession by a receiver, liquidator, administrator or other similar official of the Issuer or the Guarantors or of all or, in the opinion of the Trustee, any substantial part of their property, or the making by any of them of an assignment for the benefit of creditors generally, or the admission by any of them in writing of its inability to pay its debts generally as they become due; or

(h) Guarantees

the Guarantee is not (or is claimed by the Guarantor not to be) in full force and effect, provided that in the case of paragraphs (b), (c) and (e) (in so far as its relates to any of the events mentioned in relation to paragraphs (b), (c) or (e) only), the Trustee shall have certified that in its opinion such event is materially prejudicial to the interests of the Noteholders.

11 Meetings of Noteholders, Modification, Waiver and Substitution

(a) Meetings of Noteholders

The Trust Deed contains provisions for convening meetings of Noteholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution of a modification of any of these Conditions or any provisions of the Trust Deed. Such a meeting may be convened by Noteholders holding not less than 10 per cent. in nominal amount of the Notes for the time being outstanding. The quorum for any meeting convened to consider an Extraordinary Resolution shall be two or more persons holding or representing a clear majority in nominal amount of the Notes for the time being outstanding, or at any adjourned meeting two or more persons being or representing Noteholders whatever the nominal amount of the Notes held or represented, unless the business of such meeting includes consideration of proposals, *inter alia*, (i) to amend the dates of maturity or redemption of the Notes or any date for payment of interest or Interest Amounts on the Notes, (ii) to reduce or cancel the nominal amount of, or any premium payable on redemption of, the Notes, (iii) to reduce the rate or rates of interest in respect of the Notes or to vary the method or basis of calculating the rate or rates or amount of interest or the basis for calculating any Interest Amount in respect of the Notes, (iv) if a Minimum and/or a Maximum Rate of Interest or Redemption Amount is shown hereon, to reduce any such Minimum and/or Maximum, (v) to vary any method of, or basis for, calculating the Final Redemption Amount, the Early Redemption Amount or the Optional Redemption Amount, including the method of calculating the Amortised Face Amount, (vi) to vary the currency or currencies of payment or denomination of the Notes, (vii) to modify the provisions concerning the quorum required at any meeting of Noteholders or the majority required to pass the Extraordinary Resolution, or (viii) to modify or cancel the Guarantee, in which case the necessary quorum shall be two or more persons holding or representing not less than 75 per cent., or at any adjourned meeting not less than 25 per cent., in nominal amount of the Notes for the time being outstanding. Any Extraordinary Resolution duly passed shall be binding on Noteholders (whether or not they were present at the meeting at which such resolution was passed) and on all Couponholders.

(b) Modification and waiver

The Trustee may agree, without the consent of the Noteholders or Couponholders, to (i) any modification of any of the provisions of these Conditions or the Trust Deed that is in its opinion of a formal, minor or technical nature or is made to correct a manifest error, and (ii) any other modification (except as mentioned in the Trust Deed), and any waiver or authorisation of any breach or proposed breach, of any of the provisions of these Conditions or the Trust Deed that is in the opinion of the Trustee not materially prejudicial to the interests of the Noteholders. Any such modification, authorisation or waiver shall be binding on the Noteholders and the Couponholders and, if the Trustee so requires, such modification shall be notified to the Noteholders as soon as practicable.

(c) Substitution

The Trust Deed contains provisions permitting the Trustee to agree, subject to such amendment of the Trust Deed and such other conditions as the Trustee may require, but without the consent of the Noteholders or the Couponholders, to (i) the substitution of the Issuer's successor in business or any subsidiary of the Issuer or its successor in business in place of the Issuer or of any previously substituted company or (ii) the substitution of any relevant Guarantor's successor in business in place of such Guarantor or of any previous substituted company, under the Trust Deed and the Notes. In the case of such a substitution the Trustee may agree, without the consent of the Noteholders or the Couponholders, to a change of the law governing the Notes, the Coupons, the Talons and/or the Trust Deed provided that such change would not in the opinion of the Trustee be materially prejudicial to the interests of the Noteholders.

(d) Entitlement of the Trustee

In connection with the exercise of its functions (including but not limited to those referred to in this Condition) the Trustee shall have regard to the interests of the Noteholders as a class and shall not have regard to the consequences of such exercise for individual Noteholders or Couponholders and the Trustee shall not be entitled to require, nor shall any Noteholder or Couponholder be entitled to claim, from the Issuer or any relevant Guarantor any indemnification or payment in respect of any tax consequence of any such exercise upon individual Noteholders or Couponholders.

12 Enforcement

At any time after the Notes become due and payable, the Trustee may, at its discretion and without further notice, take such steps or actions or institute such proceedings against the Issuer and/or any relevant Guarantor as it may think fit to enforce the terms of the Trust Deed, the Notes and the Coupons, but it need not take any such steps, actions or proceedings unless (a) it shall have been so directed by an Extraordinary Resolution or so requested in writing by Noteholders holding at least one-quarter in nominal amount of the Notes outstanding, and (b) it shall have been indemnified and/or secured and/or prefunded to its satisfaction. No Noteholder or Couponholder may proceed directly against the Issuer or any relevant Guarantor unless the Trustee, having become bound so to proceed, fails to do so within a reasonable time and such failure is continuing.

13 Indemnification of the Trustee

The Trust Deed contains provisions for the indemnification of the Trustee and for its relief from responsibility. The Trustee is entitled to enter into business transactions with the Issuer, any Guarantor and any entity related to the Issuer or any Guarantor without accounting for any profit.

14 Replacement of Notes, Certificates, Coupons and Talons

If a Note, Certificate, Coupon or Talon is lost, stolen, mutilated, defaced or destroyed, it may be replaced, subject to applicable laws, regulations and stock exchange or other relevant authority regulations, at the specified office of the Issuing and Paying Agent (in the case of Bearer Notes, Coupons or Talons) and of the Registrar (in the case of Certificates) or such other Paying Agent or Transfer Agent, as the case may be, as may from time to time be designated by the Issuer for the purpose and notice of whose designation is given to Noteholders, in each case on payment by the claimant of the fees and costs incurred in connection therewith and on such terms as to evidence, security and indemnity (which may provide, *inter alia*, that if the allegedly lost, stolen or destroyed Note, Certificate, Coupon or Talon is subsequently presented for payment or, as the case may be, for exchange for further Coupons, there shall be paid to the Issuer on demand the amount payable by the Issuer in respect of such Notes, Certificates, Coupons or further Coupons) and otherwise as the Issuer and the Issuing and Paying Agent may require. Mutilated or defaced Notes, Certificates, Coupons or Talons must be surrendered before replacements will be issued.

15 Further Issues

The Issuer may from time to time without the consent of the Noteholders or Couponholders create and issue further securities either having the same terms and conditions as the Notes in all respects (or in all respects except for the first payment of interest on them) and so that such further issue may be consolidated and form a single series with the outstanding securities of any series (including the Notes) or upon such terms as the Issuer may determine at the time of their issue. References in these Conditions to the Notes include (unless the context requires otherwise) any other securities issued pursuant to this Condition and forming a single series with the Notes. Any further securities forming a single series with the outstanding securities of any series (including the Notes) constituted by the Trust Deed or any deed supplemental to it shall, and any other securities may (with the consent of the Trustee), be constituted by the Trust Deed. The Trust Deed contains provisions for convening a single meeting of the Noteholders and the holders of securities of other series where the Trustee so decides.

16 Notices

Notices to the holders of Registered Notes shall be mailed to them at their respective addresses in the Register and deemed to have been given on the fourth weekday (being a day other than a Saturday or a Sunday) after the date of mailing. Notices to the holders of Bearer Notes shall be valid if published in a daily newspaper of general circulation in London (which is expected to be the *Financial Times*). If in the opinion of the Trustee any such publication is not practicable, notice shall be validly given if published in another leading daily English language newspaper with general circulation in Europe. Any such notice shall be deemed to have been given on the date of such publication or, if published more than once or on different dates, on the first date on which publication is made, as provided above.

Couponholders shall be deemed for all purposes to have notice of the contents of any notice given to the holders of Bearer Notes in accordance with this Condition.

17 Contracts (Rights of Third Parties) Act 1999

No person shall have any right to enforce any term or condition of the Notes under the Contracts (Rights of Third Parties) Act 1999.

18 Governing Law and Jurisdiction

(a) Governing Law

The Trust Deed, the Notes, the Coupons and the Talons and any non-contractual obligations arising out of or in connection with them are governed by, and shall be construed in accordance with, English law.

(b) Jurisdiction

The Courts of England are to have jurisdiction to settle any disputes that may arise out of or in connection with any Notes, Coupons or Talons and accordingly any legal action or proceedings arising out of or in connection with any Notes, Coupons or Talons may be brought in such courts.

19 Definitions

In these Conditions, unless the context otherwise requires, the following defined terms shall have the meanings set out below:

“2005 Bonds” means the principal amount of U.S.$750,000,000 5.625 per cent. Senior Unsecured Notes due 2015, U.S.$350,000,000 6.500 per cent. Senior Unsecured Notes due 2035 and £400,000,000 5.750 per cent. Senior Unsecured Notes due 2017 issued pursuant to the indenture dated 20 October 2005 among Sky Finance, as issuer, Sky, Sky UK and Sky Subscribers, as initial guarantors, and The Bank of New York (now known as The Bank of New York Mellon), as trustee.

“2008 Bonds” means: (i) the principal amount of U.S.$750,000,000 6.10 per cent. Senior Unsecured Notes due 2018 issued pursuant to the indenture dated 15 February 2008 among Sky as issuer, Sky UK, Sky

Finance, BSkyB Investments and BSkyB Publications as initial guarantors and The Bank of New York Mellon as trustee; and (ii) the principal amount of U.S.$600,000,000 9.5 per cent. Senior Unsecured Notes due 2018 issued pursuant to the indenture dated 24 November 2008 among Sky, as issuer, Sky UK, Sky Finance, BSkyB Investments, BSkyB Publications, Sky In-Home Service Limited ("Sky In-Home") and Sky Subscribers as initial guarantors and The Bank of New York Mellon as trustee.

"2012 Bonds" means the principal amount of U.S.$800,000,000 3.125 per cent. Senior Unsecured Notes due 2022 issued pursuant to a supplemental indenture dated 14 November 2012 among Sky as issuer, Sky UK, Sky Finance, Sky In-Home and Sky Subscribers as guarantors and The Bank of New York Mellon as trustee, which supplements and amends the indenture dated 24 November 2008 among Sky as issuer, Sky UK, Sky Finance, BSkyB Investments, BSkyB Publications, Sky In-Home and Sky Subscribers as initial guarantors and The Bank of New York Mellon as trustee.

"Business Day" means:

(i) in the case of a currency other than euro, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments in the principal financial centre for such currency; and/or

(ii) in the case of euro, a day on which the TARGET system is operating (a "TARGET Business Day"); and/or

(iii) in the case of a currency and/or one or more Business Centres a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments in such currency in the Business Centre(s) or, if no currency is indicated, generally in each of the Business Centres.

"Calculation Amount" has the meaning as specified hereon.

"Change of Control Period" means the period commencing on the Relevant Announcement Date and ending 90 days after the Change of Control (or such longer period for which the Notes are under consideration (such consideration having been announced publicly within the period ending 90 days after the Change of Control) for rating review or, as the case may be, rating by a Rating Agency, such period not to exceed 60 days after the public announcement of such consideration).

"Consolidated Net Tangible Assets", means the total amount of assets of the Group including deferred pension costs included within total assets, and deferred tax assets, after deducting therefrom:

(a) all current liabilities (excluding any Finance Lease Obligation classified as a current liability);

(b) all goodwill, trade names, trade marks, patents, unamortised debt discount and financing costs; and

(c) appropriate adjustments on account of minority interests of other Persons holding shares in any Subsidiary,

all as set forth in the most recent consolidated balance sheet of the Group (but, in any event, as of a date within 150 days of the date of determination) and computed in accordance with IFRS.

"Day Count Fraction" means, in respect of the calculation of an amount of interest on any Note for any period of time (from and including the first day of such period to but excluding the last) (whether or not constituting an Interest Period or Interest Accrual Period, the "Calculation Period"):

(i) if "Actual/Actual" or "Actual/Actual - ISDA" is specified hereon, the actual number of days in the Calculation Period divided by 365 (or, if any portion of that Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Calculation Period falling in a non-leap year divided by 365);

(ii) if “Actual/365 (Fixed)” is specified hereon, the actual number of days in the Calculation Period divided by 365;

(iii) if “Actual/360” is specified hereon, the actual number of days in the Calculation Period divided by 360;

(iv) if “30/360”, “360/360” or “Bond Basis” is specified hereon, the number of days in the Calculation Period divided by 360 calculated on a formula basis as follows:

$$\text{Day Count Fraction} \quad \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y_1” is the year, expressed as a number, in which the first day of the Calculation Period falls;

“Y_2” is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“M_1” is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

“M_2” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“D_1” is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D_1 will be 30; and

“D_2” is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31 and D_1 is greater than 29, in which case D_2 will be 30;

(v) if “30E/360” or “Eurobond Basis” is specified hereon, the number of days in the Calculation Period divided by 360 calculated on a formula basis as follows:

$$\text{Day Count Fraction} \quad \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y_1” is the year, expressed as a number, in which the first day of the Calculation Period falls;

“Y_2” is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“M_1” is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

“M_2” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

“D_1” is the first calendar day, expressed as a number, of the Calculation Period, unless such number would be 31, in which case D_1 will be 30; and

“D_2” is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless such number would be 31, in which case D_2 will be 30;

(vi) if “30E/360 (ISDA)” is specified hereon, the number of days in the Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} \quad \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y_1” is the year, expressed as a number, in which the first day of the Calculation Period falls;

"Y_2" is the year, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"M_1" is the calendar month, expressed as a number, in which the first day of the Calculation Period falls;

"M_2" is the calendar month, expressed as a number, in which the day immediately following the last day included in the Calculation Period falls;

"D_1" is the first calendar day, expressed as a number, of the Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D_1 will be 30; and

"D_2" is the calendar day, expressed as a number, immediately following the last day included in the Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31, in which case D_2 will be 30; and

(vii) if "Actual/Actual-ICMA" is specified hereon:

(a) if the Calculation Period is equal to or shorter than the Determination Period during which it falls, the number of days in the Calculation Period divided by the product of (x) the number of days in such Determination Period and (y) the number of Determination Periods normally ending in any year; and

(b) if the Calculation Period is longer than one Determination Period, the sum of:

(x) the number of days in such Calculation Period falling in the Determination Period in which it begins divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year; and

(y) the number of days in such Calculation Period falling in the next Determination Period divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year,

where:

"Determination Period" means the period from and including a Determination Date in any year to but excluding the next Determination Date; and

"Determination Date" means the date(s) specified as such hereon or, if none is so specified, the Interest Payment Date(s).

"Early Redemption Amount" has the meaning as specified hereon.

"Euro-zone" means the region comprised of member states of the European Union that adopt the single currency in accordance with the Treaty establishing the European Community, as amended.

"Extraordinary Resolution" has the meaning given in the Trust Deed.

"Final Redemption Amount" has the meaning as specified hereon.

"Finance Lease Obligation" means any indebtedness or other obligation of a Person under a lease treated as a finance lease in accordance with IFRS as amended, superseded or substituted in accordance with IFRS.

"Group" means Sky and its consolidated subsidiaries which are consolidated under IFRS.

"IFRS" means International Financial Reporting Standards as issued by the International Accounting Standard Board, as endorsed by the European Commission and applied by Sky on a consistent basis or any other body of generally accepted accounting principles as may be required to be applied by Sky in accordance with the rules of any relevant regulatory body, as so applied.

"Indebtedness" of any Person as at the relevant date means, and without duplication, any obligation for or in respect of:

(i) money borrowed or raised (whether or not for a cash consideration and whether or not the recourse of the lender is to the whole of the assets of such Person or only a portion thereof) and premiums (if any) and capitalised interest (if any) in respect thereof;

(ii) any debenture, bond, note, loan, stock or similar instrument (whether or not issued or raised for a cash consideration);

(iii) liabilities of such Person in respect of any letter of credit (other than in respect of Trade Payables), bankers' acceptance or note purchase facility or any liability with respect to any recourse receivables purchase, factoring or discounting arrangement;

(iv) Finance Lease Obligations (whether in respect of buildings, machinery, equipment or otherwise);

(v) any deferred purchase or conditional sale agreement or arrangement or representing the balance deferred and unpaid of the purchase price of any property (including pursuant to any Finance Lease Obligation), except any such balance which represents a Trade Payable;

(vi) net liabilities in respect of any Interest Rate Protection Agreements (but only to the extent that such liabilities are secured by the posting of cash collateral);

(vii) all obligations of such Person to purchase, redeem, retire, defease or otherwise acquire for value any Redeemable Stock of such Person or any warrants, rights or options to acquire such Redeemable Stock valued, in the case of Redeemable Stock, at the greatest amount payable in respect thereof on a liquidation (whether voluntary or involuntary) plus accrued and unpaid dividends;

(viii) direct or indirect guarantees of all Indebtedness of other Persons referred to in clauses (i) to (vii) (inclusive) above or legally binding agreements by any Person:

(a) to pay or purchase such Indebtedness or to advance or supply funds for the payment or purchase of such Indebtedness, or

(b) to purchase, sell or lease (as lessee or lessor) property, or to purchase or sell services, primarily for the purpose of enabling the debtor to make payment of such Indebtedness, or

(c) to supply funds to or in any other manner invest in the debtor (including any agreement to pay for property or services irrespective of whether such property is received or such services are rendered), or

(d) otherwise to assure in a legally binding manner any Person to whom Indebtedness is owed against loss; and

(ix) all Indebtedness of the types referred to in clauses (i) to (viii) (inclusive) above secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any encumbrance on any asset owned by such Person, even though such Person has not assumed or become liable for the payment of such Indebtedness.

The amount of Indebtedness of any Person at any date shall be (without duplication) (i) the outstanding balance at such date of all unconditional obligations as described above and the maximum liability of any such contingent obligations at such date and (ii), in the case of Indebtedness of others, secured by a Lien to which the property or assets owned or held by such Person is subject, the lesser of the fair market value at such date of any asset subject to a Lien securing the Indebtedness of others and the amount of the Indebtedness secured.

“Interest Accrual Period” means the period beginning on (and including) the Interest Commencement Date and ending on (but excluding) the first Interest Period Date and each successive period beginning on (and including) an Interest Period Date and ending on (but excluding) the next succeeding Interest Period Date.

“Interest Amount” means:

(i) in respect of an Interest Accrual Period, the amount of interest payable per Calculation Amount for that Interest Accrual Period and which, in the case of Fixed Rate Notes, and unless otherwise specified hereon, shall mean the Fixed Coupon Amount or Broken Amount specified hereon as being payable on the Interest Payment Date ending the Interest Period of which such Interest Accrual Period forms part; and

(ii) in respect of any other period, the amount of interest payable per Calculation Amount for that period.

“Interest Commencement Date” means the Issue Date or such other date as may be specified hereon.

“Interest Determination Date” means, with respect to a Rate of Interest and Interest Accrual Period, the date specified as such hereon or, if none is so specified, (i) the first day of such Interest Accrual Period if the Specified Currency is Sterling or (ii) the day falling two Business Days in London for the Specified Currency prior to the first day of such Interest Accrual Period if the Specified Currency is neither Sterling nor euro or (iii) the day falling two TARGET Business Days prior to the first day of such Interest Accrual Period if the Specified Currency is euro.

“Interest Period” means the period beginning on (and including) the Interest Commencement Date and ending on (but excluding) the first Interest Payment Date and each successive period beginning on (and including) an Interest Payment Date and ending on (but excluding) the next succeeding Interest Payment Date.

“Interest Period Date” means each Interest Payment Date unless otherwise specified hereon.

“Interest Rate Protection Agreements” of any Person is defined as the obligations of such Person pursuant to any interest rate swap agreement, interest rate collar agreement, option or future contract or other similar agreement or arrangement designed to protect such Person or any of its Subsidiaries against fluctuations in interest rates.

“ISDA Definitions” means the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc., unless otherwise specified hereon.

“Lien” means any mortgage, lien, pledge, security interest, conditional sale or other title retention agreement, charge, or other security interest or encumbrance of any kind (including any unconditional agreement to give security interest).

“Margin” has the meaning as specified hereon.

“Maximum Rate of Interest” has the meaning as specified hereon.

“Maximum Redemption Amount” has the meaning as specified hereon.

“Minimum Rate of Interest” has the meaning as specified hereon.

“Minimum Redemption Amount” has the meaning as specified hereon.

A “Negative Rating Event” shall be deemed to have occurred if at such time as there is no rating assigned to the Notes by a Rating Agency (i) the Issuer does not, either prior to, or not later than 21 days after, the occurrence of the Change of Control seek, and thereafter throughout the Change of Control Period use all reasonable endeavours to obtain, a rating of the Notes, or any other unsecured and unsubordinated debt of the Issuer or (ii) if the Issuer does so seek and use such endeavours, it is unable to obtain such a rating of at least investment grade by the end of the Change of Control Period.

“Optional Redemption Amount” has the meaning as specified hereon.

“Person” means any individual, corporation, partnership, joint venture, trust, unincorporated organisation or government or any agency or political subdivision thereof.

“Rate of Interest” means the rate of interest payable from time to time in respect of this Note and that is either specified or calculated in accordance with the provisions hereon.

“Rating Agency” means Moody’s Investors Service Ltd. (“Moody’s”), Standard & Poor’s Credit Market Services Europe Ltd. (“S&P”) or Fitch Ratings Limited (“Fitch”) or any of their respective successors or any rating agency (a “Substitute Rating Agency”) substituted for any of them by the Issuer from time to time with the prior written approval of the Trustee.

“Redeemable Stock” means any equity security that by its terms or otherwise is required to be redeemed prior to the maturity of the Notes or is redeemable at the option of the holder thereof at any time prior to maturity of the Notes.

“Redemption Amount” means, as appropriate, the Final Redemption Amount, the Early Redemption Amount, the Optional Redemption Amount or such other redemption amount as may be specified hereon.

“Reference Banks” means, in the case of a determination of LIBOR, the principal London office of four major banks in the London inter-bank market and, in the case of a determination of EURIBOR, the principal Euro-zone office of four major banks in the Euro-zone inter-bank market, in each case selected by the Calculation Agent or as specified hereon.

“Reference Rate” means the rate specified as such hereon.

“Relevant Indebtedness” means any Indebtedness which is in the form of or represented by any bond, note, debenture, debenture stock, loan stock, certificate or other instrument which is, or is intended to be, listed, quoted or traded on any stock exchange or in any securities market (including, without limitation, any over-the-counter market).

“Relevant Potential Change of Control Announcement” means any public announcement or statement by the Issuer, any actual or potential bidder or any adviser acting on behalf of any actual or potential bidder relating to any potential Change of Control where within 90 days following the date of such announcement or statement, a Change of Control occurs.

“Relevant Screen Page” means such page, section, caption, column or other part of a particular information service as may be specified hereon or any successor page.

“Revolving Credit Facility” means the £750,000,000 revolving credit facility for Sky, guaranteed by certain subsidiaries of Sky dated as of 19 June 2009, as amended, supplemented or otherwise modified from time to time by the parties thereto, or any refinancing, refunding, renewal or substitution thereof.

“Specified Currency” means the currency specified as such hereon or, if none is specified, the currency in which the Notes are denominated.

“Specified Interest Payment Dates” means such dates as may be specified hereon.

“Subsidiary” means, from time to time, a subsidiary of Sky within the meaning of Section 1159 of the Companies Act 2006.

“TARGET System” means the Trans-European Automated Real-Time Gross Settlement Express Transfer (known as TARGET2) System which was launched on 19 November 2007 or any successor thereto.

“Trade Payables” of any Person means as accounts payable or any other Indebtedness or monetary obligations to trade creditors created, assumed or guaranteed by such Person or any of its subsidiaries in the ordinary course of business in connection with the obtaining of goods, materials or services.

EXECUTION CLAUSES

The Issuers

Executed as a Deed by

SKY PLC (formerly known as British Sky Broadcasting Group plc)

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

Executed as a Deed by

SKY GROUP FINANCE PLC (formerly known as BSkyB Finance UK plc)

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

The Initial Guarantors

Executed as a Deed by

SKY PLC (formerly known as British Sky Broadcasting Group plc)

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

Executed as a Deed by

SKY GROUP FINANCE PLC (formerly known as BSkyB Finance UK plc)

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

Executed as a Deed by

SKY UK LIMITED (formerly known as British Sky Broadcasting Limited)

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

Executed as a Deed by

SKY SUBSCRIBERS SERVICES LIMITED

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

Executed as a Deed by

SKY IN-HOME SERVICE LIMITED

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

The Acceding Guarantor

Executed as a Deed by

SKY TELECOMMUNICATIONS SERVICES LIMITED

_____ (Signature)

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

The Trustee

Executed as a Deed by

BNY MELLON CORPORATE TRUSTEE SERVICES LIMITED

acting by its two lawful attorneys:

_____ (Signature) Attorney

_____ (Name)

_____ (Signature) Attorney

_____ (Name)

in the presence of:

_____ (Signature of witness)

_____ (Name of witness)

_____ (Address of witness)

_____

_____

COMCAST CORPORATION

2003 STOCK OPTION PLAN

(As Amended and Restated Effective December 18, 2018)

1. **Background and Purpose**

(a) Background. COMCAST CORPORATION, a Pennsylvania corporation hereby amends and restates the Comcast Corporation 2003 Stock Option Plan, (the "Plan"), effective December 18, 2018.

(b) Purpose. The purpose of the Plan is to assist the Sponsor and its Affiliates in retaining valued employees, officers and directors by offering them a greater stake in the Sponsor's success and a closer identity with it, and to aid in attracting individuals whose services would be helpful to the Sponsor and would contribute to its success.

(c) References to Written Forms, Elections and Notices. Any action under the Plan that requires a written form, election, notice or other action shall be treated as completed if taken via electronic or other means, to the extent authorized by the Committee.

2. **DEFINITIONS**

(a) "Affiliate" means, with respect to any Person, any other Person that, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, the term "control," including its correlative terms "controlled by" and "under common control with," mean, with respect to any Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

(b) "AT&T Broadband Transaction" means the acquisition of AT&T Broadband Corp. (now known as Comcast Cable Communications Holdings, Inc.) by the Sponsor.

(c) "Board" means the Board of Directors of the Sponsor.

(d) "Cash Right" means any right to receive cash in lieu of Shares granted under the Plan and described in Paragraph 3(a)(iii).

(e) "Cause" means (i) fraud; (ii) misappropriation; (iii) embezzlement; (iv) gross negligence in the performance of duties; (v) self-dealing; (vi) dishonesty; (vii) misrepresentation; (viii) conviction of a crime of a felony; (ix) material violation of any Company policy; (x) material violation of the Sponsor's Code of Conduct or, (xi) in the case of an employee of a Company who is a party to an employment agreement with a Company, material breach of such agreement; provided that as to items (ix), (x) and (xi), if capable of being cured, such event or condition remains uncured following 30 days written notice thereof.

(f) "Change in Control" means the occurrence of any one or more of the following events:

(i) following February 22, 2016, any person or "group" (as defined in Section 13(d) of the Exchange Act) (each, a "Person"), other than an employee benefit plan or trust maintained by the Sponsor, becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Sponsor representing 30% or more of the combined voting power of the Sponsor's outstanding securities entitled to vote generally in the election of directors, unless a majority of the directors of the Sponsor in office immediately preceding the date on which such

Person acquires such beneficial ownership, by resolution negates the effectiveness of this provision in a particular circumstance);

(ii) at any time during a period of 12 consecutive months, individuals who at the beginning of such period constituted the Board and any new member of the Board whose election or nomination for election was approved by a vote of at least a majority of the directors then still in office who either were directors at the beginning of such period or whose election or nomination for election was so approved, cease for any reason to constitute a majority of members of the Board;

(iii) the consummation of (x) a merger, consolidation, reorganization or similar corporate transaction involving the Sponsor or any of its subsidiaries with any other corporation or entity, which would result in combined voting power of the Sponsor's securities entitled to vote generally in the election of directors outstanding immediately prior to such merger, consolidation, reorganization or other similar transaction representing (either by remaining outstanding or being converted into voting securities of the surviving entity or, if applicable, the ultimate parent thereof) less than a majority of the combined voting power of the Sponsor or such surviving entity or parent outstanding immediately after such merger, consolidation, reorganization or other similar transaction, or (y) any sale, lease, exchange or other transfer to any Person of all or substantially all of the assets of the Sponsor, in one transaction or a series of related transactions; or

(iv) the approval by the shareholders of the Sponsor of a liquidation or dissolution of the Sponsor.

(g) "Code" means the Internal Revenue Code of 1986, as amended.

(h) "Comcast Plan" means any restricted stock, stock bonus, stock option or other compensation plan, program or arrangement established or maintained by the Sponsor or an Affiliate of the Sponsor, including, but not limited to this Plan, the Comcast Corporation 2002 Stock Option Plan, the Comcast Corporation 2002 Restricted Stock Plan, the Comcast Corporation 1987 Stock Option Plan and the AT&T Broadband Corp. Adjustment Plan.

(i) "Committee" means the committee described in Paragraph 5, provided that for purposes of Paragraph 7:

(i) all references to the Committee shall be treated as references to the Board with respect to any Option granted to or held by a Non-Employee Director; and

(ii) all references to the Committee shall be treated as references to the Committee's delegate with respect to any Option granted within the scope of the delegate's authority pursuant to Paragraph 5(b).

(j) "Common Stock" means the Sponsor's Class A Common Stock, par value, $0.01.

(k) "Company" means the Sponsor and the Subsidiary Companies.

(l) "Date of Grant" means the date as of which an Option is granted.

(m) "Director Emeritus" means an individual designated by the Board, in its sole discretion, as Director Emeritus, pursuant to the Board's Director Emeritus Policy.

(n) "Disability" means:

(i) For any Incentive Stock Option, a disability within the meaning of section 22(e)(3) of the Code.

(ii) For any Non-Qualified Option:

(A) An Optionee's substantially inability to perform the Optionee's employment duties due to partial or total disability or incapacity

resulting from a mental or physical illness, injury or other health-related cause for a period of twelve (12) consecutive months or for a cumulative period of fifty-two (52) weeks in any two calendar year period; or

(B) If different from the definition in Paragraph 2(n)(ii)(A) above, "Disability" as it may be defined in such Optionee's employment agreement between the Optionee and the Sponsor or an Affiliate, if any.

(o) "Fair Market Value."

(i) In General. If Shares are listed on a stock exchange, Fair Market Value shall be determined based on the last reported sale price of a Share on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the next trading date. If Shares are not so listed, but trades of Shares are reported on the Nasdaq National Market, Fair Market Value shall be determined based on the last quoted sale price of a Share on the Nasdaq National Market on the date of determination, or if such date is not a trading day, the next trading date. If Shares are not so listed nor trades of Shares so reported, Fair Market Value shall be determined by the Board or the Committee in good faith.

(ii) Option Exercise and Tax Withholding. For purposes of Paragraph 7(d) and Paragraph 15 (except to the extent that the Optionee pays the full option price and all applicable withholding taxes in cash, by certified check or surrender or attestation to ownership of Shares, as described in Paragraph 7(d)(i), (ii) and (iii), respectively) the fair market value of Shares applied to pay the option price and the fair market value of Shares withheld to pay applicable tax liabilities shall be determined based on the available price of Shares at the time the option exercise transaction is executed.

(p) "Family Member" has the meaning given to such term in General Instructions A.1(a)(5) to Form S-8 under the Securities Act of 1933, as amended, and any successor thereto.

(q) "Incentive Stock Option" means an Option granted under the Plan, designated by the Committee at the time of such grant as an Incentive Stock Option within the meaning of section 422 of the Code and containing the terms specified herein for Incentive Stock Options; provided, however, that to the extent an Option granted under the Plan and designated by the Committee at the time of grant as an Incentive Stock Option fails to satisfy the requirements for an incentive stock option under section 422 of the Code for any reason, such Option shall be treated as a Non-Qualified Option.

(r) "Non-Employee Director" means an individual who is a member of the Board, and who is not an employee of a Company, including an individual who is a member of the Board and who previously was, but at the time of reference is not, an employee of a Company.

(s) "Non-Qualified Option" means:

(i) an Option granted under the Plan, designated by the Committee at the time of such grant as a Non-Qualified Option and containing the terms specified herein for Non-Qualified Options; and

(ii) an Option granted under the Plan and designated by the Committee at the time of grant as an Incentive Stock Option, to the extent such Option fails to satisfy the requirements for an incentive stock option under section 422 of the Code for any reason.

(t) "Officer" means an officer of the Sponsor (as defined in section 16 of the 1934 Act).

(u) "Option" means any stock option granted under the Plan and described in Paragraph 3(a)(i) or Paragraph 3(a)(ii).

(v) "Optionee" means a person to whom an Option has been granted under the Plan, which Option has not been exercised in full and has not expired or terminated.

(w) "Other Available Shares" means, as of any date, the sum of:

(i) the total number of Shares owned by an Optionee or such Optionee's Family Member that were not acquired by such Optionee or such Optionee's Family Member pursuant to a Comcast Plan or otherwise in connection with the performance of services to the Sponsor or an Affiliate; plus

(ii) the excess, if any of:

(A) the total number of Shares owned by an Optionee or such Optionee's Family Member other than the Shares described in Paragraph 2(w)(i); over

(B) the sum of:

(1) the number of such Shares owned by such Optionee or such Optionee's Family Member for less than six months; plus

(2) the number of such Shares owned by such Optionee or such Optionee's Family Member that has, within the preceding six months, been the subject of a withholding certification pursuant to Paragraph 15(b) or any similar withholding certification under any other Comcast Plan; plus

(3) the number of such Shares owned by such Optionee or such Optionee's Family Member that has, within the preceding six months, been received in exchange for Shares surrendered as payment, in full or in part, or as to which ownership was attested to as payment, in full or in part, of the exercise price for an option to purchase any securities of the Sponsor or an Affiliate of the Sponsor, under any Comcast Plan, but only to the extent of the number of Shares surrendered or attested to; plus

(4) the number of such Shares owned by such Optionee or such Optionee's Family Member as to which evidence of ownership has, within the preceding six months, been provided to the Sponsor in connection with the crediting of "Deferred Stock Units" to such Optionee's Account under the Comcast Corporation 2002 Deferred Stock Option Plan (as in effect from time to time).

For purposes of this Paragraph 2(w), a Share that is subject to a deferral election pursuant to another Comcast Plan shall not be treated as owned by an Optionee until all conditions to the delivery of such Share have lapsed. For purposes of determining the number of Other Available Shares, the term "Shares" shall also include the securities held by an Optionee or such Optionee's Family Member immediately before the consummation of the AT&T Broadband Transaction that have converted into Common Stock.

(x) [RESERVED]

(y) "Person" means an individual, a corporation, a partnership, an association, a trust or any other entity or organization.

(z) "Plan" means the Comcast Corporation 2003 Stock Option Plan.

(aa) "Share" or "Shares."

(i) Except as provided in this Paragraph 2(aa), a share or shares of Common Stock.

(ii) The term "Share" or "Shares" also means such other securities issued by the Sponsor as may be the subject of an adjustment under Paragraph 10, or for

purposes of Paragraph 2(w) and Paragraph 15, as may have been the subject of a similar adjustment under similar provisions of a Comcast Plan as now in effect or as may have been in effect before the AT&T Broadband Transaction.

(ab) [RESERVED]

(ac) "Sponsor" means Comcast Corporation, a Pennsylvania corporation, including any successor thereto by merger, consolidation, acquisition of all or substantially all the assets thereof, or otherwise.

(ad) "Subsidiary Companies" means all business entities that, at the time in question, are subsidiaries of the Sponsor within the meaning of section 424(f) of the Code.

(ae) "Ten Percent Shareholder" means a person who on the Date of Grant owns, either directly or within the meaning of the attribution rules contained in section 424(d) of the Code, stock possessing more than 10% of the total combined voting power of all classes of stock of his employer corporation or of its parent or subsidiary corporations, as defined respectively in sections 424(e) and (f) of the Code, provided that the employer corporation is a Company.

(af) "Terminating Event" means a Change in Control.

(ag) "Third Party" means any Person other than a Company, together with such Person's Affiliates, provided that the term "Third Party" shall not include the Sponsor or an Affiliate of the Sponsor.

(ah) "1933 Act" means the Securities Act of 1933, as amended.

(ai) "1934 Act" means the Securities Exchange Act of 1934, as amended.

3. **RIGHTS TO BE GRANTED**

(a) Types of Options and Other Rights Available for Grant. Rights that may be granted under the Plan are:

(i) Incentive Stock Options, which give an Optionee who is an employee of a Company the right for a specified time period to purchase a specified number of Shares for a price not less than the Fair Market Value on the Date of Grant.

(ii) Non-Qualified Options, which give the Optionee the right for a specified time period to purchase a specified number of Shares for a price not less than the Fair Market Value on the Date of Grant; and

(iii) Cash Rights, which give an Optionee the right for a specified time period, and subject to such conditions, if any, as shall be determined by the Committee and stated in the option document, to receive a cash payment of such amount per Share as shall be determined by the Committee and stated in the option document, not to exceed the excess, if any, of the Fair Market Value of a Share on the date of exercise of a Cash Right over the Fair Market Value of Share on the date of grant of a Cash Right, in lieu of exercising a Non-Qualified Option.

(b) Limit on Grant of Options. The maximum number of Shares for which Options may be granted to any single individual in any calendar year, adjusted as provided in Paragraph 10, shall be 30,000,000 Shares.

(c) Limit on Term of Options. In no event shall (i) an Incentive Stock Option be exercisable after five years from the Date of Grant in the case of a grant to a Ten Percent Shareholder and (ii) any other Option be exercisable after ten years from the Date of Grant.

4. **Shares Subject to Plan**

(a) Shares Available For Grant. Subject to adjustment as provided in Paragraph 10, not more than 688 million Shares in the aggregate may be issued pursuant to the Plan upon exercise of

Options. Shares delivered pursuant to the exercise of an Option may, at the Sponsor's option, be either treasury Shares or Shares originally issued for such purpose.

(b) Shares Returned to the Reserve. For avoidance of doubt, if an Option covering Shares is forfeited, terminates or expires without having been exercised in full, the Shares underlying such forfeited, terminated or expired Option shall return to the pool of Shares available for issuance under the Plan.

(c) Share Recycling Prohibitions. If (i) the Sponsor withholds Shares to satisfy an Optionee's tax liabilities as provided in Paragraph 15(b) and Paragraph 15(c) or (ii) an Option covering Shares is exercised pursuant to the cashless exercise provisions of Paragraph 7(d)(iv), other Options may not be granted covering the Shares so withheld to satisfy the Optionee's tax liabilities or covering the Shares that were subject to such Option but not delivered because of the application of such cashless exercise provisions, as applicable. In addition, for the avoidance of doubt, Options may not be granted covering Shares repurchased by the Sponsor on the open market with proceeds, if any, received by the Sponsor on account of the payment of the option price for an Option by Optionees.

5. **Administration of Plan**

(a) Committee. The Plan shall be administered by the Compensation Committee of the Board or any other committee or subcommittee designated by the Board, provided that the committee administering the Plan is composed of two or more non-employee members of the Board.

(b) Delegation of Authority. The Committee may delegate its authority with respect to the grant, amendment, interpretation and administration of Options to a person, persons or committee, in its sole and absolute discretion. Actions taken by the Committee's duly-authorized delegate shall have the same force and effect as actions taken by the Committee. Any delegation of authority pursuant to this Paragraph 5(b) shall continue in effect until the earliest of:

(i) such time as the Committee shall, in its sole and absolute discretion, revoke such delegation of authority;

(ii) in the case of delegation to a person that is conditioned on such person's continued service as an employee of the Company or as a member of the Board, the date such delegate shall cease to serve in such capacity for any reason; or

(iii) the delegate shall notify the Committee that he or she declines to continue to exercise such authority.

(c) Meetings. The Committee shall hold meetings at such times and places as it may determine. Acts approved at a meeting by a majority of the members of the Committee or acts approved by the unanimous consent of the members of the Committee shall be the valid acts of the Committee.

(d) Exculpation. No member of the Committee shall be personally liable for monetary damages for any action taken or any failure to take any action in connection with the administration of the Plan or the granting of Options thereunder unless (i) the member of the Committee has breached or failed to perform the duties of his office, and (ii) the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness; provided, however, that the provisions of this Paragraph 5(d) shall not apply to the responsibility or liability of a member of the Committee pursuant to any criminal statute.

(e) Indemnification. Service on the Committee shall constitute service as a member of the Board. Each member of the Committee shall be entitled without further act on his part to indemnity from the Sponsor to the fullest extent provided by applicable law and the Sponsor's By-laws in connection with or arising out of any actions, suit or proceeding with respect to the administration of the Plan or the granting of Options thereunder in which he may be involved by

reasons of his being or having been a member of the Committee, whether or not he continues to be such member of the Committee at the time of the action, suit or proceeding.

6. **ELIGIBILITY**

(a) Eligible individuals to whom Options may be granted shall be employees, officers or directors of a Company who are selected by the Committee for the grant of Options. Eligible individuals to whom Cash Rights may be granted shall be individuals who are employees of a Company on the Date of Grant other than Officers. The terms and conditions of Options granted to individuals other than Non-Employee Directors shall be determined by the Committee, subject to Paragraph 7. The terms and conditions of Cash Rights shall be determined by the Committee, subject to Paragraph 7. The terms and conditions of Options granted to Non-Employee Directors shall be determined by the Board, subject to Paragraph 7.

(b) An Incentive Stock Option shall not be granted to a Ten Percent Shareholder except on such terms concerning the option price and term as are provided in Paragraph 7(b) and 7(g) with respect to such a person. An Option designated as Incentive Stock Option granted to a Ten Percent Shareholder but which does not comply with the requirements of the preceding sentence shall be treated as a Non-Qualified Option. An Option designated as an Incentive Stock Option shall be treated as a Non-Qualified Option if the Optionee is not an employee of a Company on the Date of Grant.

7. **OPTION DOCUMENTS AND TERMS - IN GENERAL**

All Options granted to Optionees shall be evidenced by option documents. The terms of each such option document for any Optionee who is an employee of a Company shall be determined from time to time by the Committee, and the terms of each such option document for any Optionee who is a Non-Employee Director shall be determined from time to time by the Board, consistent, however, with the following:

(a) Time of Grant. All Options shall be granted on or before

(b) May 19, 2026.

(c) Option Price. Except as otherwise provided in Section 13(b), the option price per Share with respect to any Option shall be determined by the Committee, provided, however, that with respect to any Options, the option price per share shall not be less than 100% of the Fair Market Value of such Share on the Date of Grant, and provided further that with respect to any Incentive Stock Options granted to a Ten Percent Shareholder, the option price per Share shall not be less than 110% of the Fair Market Value of such Share on the Date of Grant.

(d) Restrictions on Transferability. No Option granted under this Paragraph 7 shall be transferable otherwise than by will or the laws of descent and distribution and, during the lifetime of the Optionee, shall be exercisable only by him or for his benefit by his attorney-in-fact or guardian; provided that the Committee may, in its discretion, at the time of grant of a Non-Qualified Option or by amendment of an option document for an Incentive Stock Option or a Non-Qualified Option, provide that Options granted to or held by an Optionee may be transferred, in whole or in part, to one or more transferees and exercised by any such transferee; provided further that (i) any such transfer is without consideration and (ii) each transferee is a Family Member with respect to the Optionee; and provided further that any Incentive Stock Option granted pursuant to an option document which is amended to permit transfers during the lifetime of the Optionee shall, upon the effectiveness of such amendment, be treated thereafter as a Non-Qualified Option. No transfer of an Option shall be effective unless the Committee is notified of the terms and conditions of the transfer and the Committee determines that the transfer complies with the requirements for transfers of Options under the Plan and the option document. Any person to whom an Option has been transferred may exercise any Options only in accordance with the provisions of Paragraph 7(g) and this Paragraph 7(c).

(e) Payment Upon Exercise of Options. Full payment for Shares purchased upon the exercise of an Option shall be made pursuant to one or more of the following methods as determined by the Committee and set forth in the Option document:

(i) In cash;

(ii) By certified check payable to the order of the Sponsor;

(iii) By surrendering or attesting to ownership of Shares with an aggregate Fair Market Value equal to the aggregate option price, provided that the option price may not be paid in Shares if the Committee determines that such method of payment would result in liability under section 16(b) of the 1934 Act to an Optionee. Except as otherwise provided by the Committee, if payment is made in whole or in part by surrendering Shares, the Optionee shall deliver to the Sponsor certificates registered in the name of such Optionee (or record the equivalent thereof on a book entry recordkeeping system maintained by the Sponsor) representing Shares legally and beneficially owned by such Optionee, free of all liens, claims and encumbrances of every kind and having a Fair Market Value on the date of delivery that is equal to or greater than the aggregate option price for the Option Shares subject to payment by the surrender of Shares, accompanied by any necessary stock powers duly endorsed in blank by the record holder of such Shares; and if payment is made in whole or in part by attestation of ownership, the Optionee shall attest to ownership of Shares representing Shares legally and beneficially owned by such Optionee, free of all liens, claims and encumbrances of every kind and having a Fair Market Value on the date of attestation that is equal to or greater than the aggregate option price for the Option Shares subject to payment by attestation of Share ownership. The Committee may impose such limitations and prohibitions on attestation or ownership of Shares and the use of Shares to exercise an Option as it deems appropriate; or

(iv) Via cashless exercise, such that subject to the other terms and conditions of the Plan, following the date of exercise, the Company shall deliver to the Optionee Shares having a Fair Market Value at the time of exercise, equal to the excess, if any, of (A) the Fair Market Value of such Shares at the time of exercise of the Option over (B) the sum of (1) the aggregate option price for such Shares, plus (2) the applicable tax withholding amounts (as determined pursuant to Paragraph 15) for such exercise; provided that in connection with such cashless exercise that would not result in the issuance of a whole number of Shares, the Company shall withhold cash that would otherwise be payable to the Optionee from its regular payroll or the Optionee shall deliver cash or a certified check payable to the order of the Company for the balance of the option price for a whole Share to the extent necessary to avoid the issuance of a fractional Share or the payment of cash by the Company (as provided in Paragraph 7(e)).

(f) Recording of Shares Upon Exercise of Options; Payment of Cash. For purposes of the Plan, the Sponsor may satisfy its obligation to deliver Shares following the exercise of Options by arranging for the recording of Optionee's ownership of Shares issuable on the exercise of Options on a book entry recordkeeping system maintained by the Sponsor. Only whole Shares shall be issuable upon exercise of Options. No fractional Shares shall be issued. Any right to a

fractional Share shall be satisfied in cash. Following the exercise of an Option and the satisfaction of the conditions of Paragraph 9, the Sponsor shall deliver to the Optionee the number of whole Shares issuable on the exercise of an Option and a check for the Fair Market Value on the date of exercise of any fractional Share to which the Optionee is entitled.

(g) Termination of Employment. For purposes of the Plan, a transfer of an employee between two employers, each of which is a Company, shall not be deemed a termination of employment. For purposes of Paragraph 7(g), an Optionee's termination of employment shall be deemed to occur on the date an Optionee ceases to have a regular obligation to perform services for a Company, without regard to whether (i) the Optionee continues on the Company's payroll for regular, severance or other pay or (ii) the Optionee continues to participate in one or more health and welfare plans maintained by the Company on the same basis as active employees. Whether an Optionee ceases to have a regular obligation to perform services for a Company shall be determined by the Committee in its sole discretion. Notwithstanding the foregoing, if an Optionee is a party to an employment agreement or severance agreement with a Company which establishes the effective date of such Optionee's termination of employment for purposes of this Paragraph 7(f), that date shall apply. An Optionee who is a Non-Employee Director shall be treated as having terminated employment on the Optionee's termination of service as a Non-Employee Director, provided that if such an Optionee is designated as a Director Emeritus upon termination of service as a Non-Employee Director, such Optionee shall not be treated as having terminated employment until the Optionee's termination of service as a Director Emeritus.

(h) Periods of Exercise of Options. An Option shall be exercisable in whole or in part at such time or times as may be determined by the Committee and stated in the option document, or as described in Paragraph 7(h)(ii), provided, however, that if the grant of an Option would be subject to section 16(b) of the 1934 Act, unless the requirements for exemption therefrom in Rule 16b-3(c)(1), under such Act, or any successor provision, are met, the option document for such Option shall provide that such Option is not exercisable until not less than six months have elapsed from the Date of Grant. Except as otherwise provided by the Committee in its discretion, no Option shall first become exercisable following an Optionee's termination of employment for any reason; provided further, that:

(i) In the event that an Optionee's employment with the Company terminates for any reason other than death or Cause, any Option held by such Optionee and which is then exercisable shall be exercisable for a period of 90 days following the date the Optionee's employment with the Company terminates (unless a longer period is established by the Committee); provided, however, that if such termination of employment with the Company is due to the Disability of the Optionee, he shall have the right to exercise those of his Options which are then exercisable for a period of one year following such termination of employment (unless a longer period is established by the Committee); provided, however, that in no event shall an Incentive Stock Option be exercisable after five years from the Date of Grant in the case of a grant to a Ten Percent Shareholder, nor shall any other Option be exercisable after ten years from the Date of Grant.

(ii) In the event that an Optionee's employment with the Company terminates by reason of his death, any Option held at death by such Optionee which is then exercisable shall be exercisable for a period of one year from the date of death (unless a longer period is established by the Committee) by the person to whom the rights of the Optionee shall have passed by will or by the laws of descent and distribution; provided, however, that in no event shall an Incentive Stock Option be exercisable after five years from the Date

of Grant in the case of a grant to a Ten Percent Shareholder, nor shall any other Option be exercisable after ten years from the Date of Grant.

(iii) In the event that an Optionee's employment with the Company is terminated for Cause, each unexercised Option held by such Optionee shall terminate and cease to be exercisable; provided further, that in such event, in addition to immediate termination of the Option, the Optionee, upon a determination by the Committee shall automatically forfeit all Shares otherwise subject to delivery upon exercise of an Option but for which the Sponsor has not yet delivered such Shares, upon refund by the Sponsor of the option price.

(i) Date of Exercise.

(i) In General. The date of exercise of an Option shall be the date on which written notice of exercise, addressed to the Sponsor at its main office to the attention of its Secretary, is hand delivered, telecopied or mailed first class postage prepaid; provided, however, that the Sponsor shall not be obligated to deliver any Shares pursuant to the exercise of an Option until the Optionee shall have made payment in full of the option price for such Shares. Each such exercise shall be irrevocable when given. Each notice of exercise must (i) specify the Incentive Stock Option, Non-Qualified Option or combination thereof being exercised; and (ii) if applicable, include a statement of preference (which shall be binding on and irrevocable by the Optionee but shall not be binding on the Committee) as to the manner in which payment to the Sponsor shall be made. Each notice of exercise shall also comply with the requirements of Paragraph 15.

(ii) Automatic Exercise. The provisions of this Paragraph 7(h)(ii) shall apply to any Option that is unexercised, in whole or in part, on or after October 28, 2013. Immediately before the time at which any such Option is scheduled to expire in accordance with the terms and conditions of the Plan and the applicable option document, such Option shall be deemed automatically exercised, if such Option satisfies the following conditions:

(A) Such Option is covered by a then current registration statement or a Notification under Regulation A under the 1933 Act.

(B) The last reported sale price of a Share on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the last preceding trading day, exceeds the option price per Share by such amount as may be determined by the Committee or its delegate from time to time. Absent a contrary determination, such excess per Share shall be $0.01.

An Option subject to this Paragraph 7(h)(ii) shall be exercised via cashless exercise, such that subject to the other terms and conditions of the Plan, following the date of exercise, the Company shall deliver to the Optionee Shares having a value, at the time of exercise, equal to the excess, if any, of (A) the value of such Shares based on the last reported sale price of such Shares on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the last preceding trading date, over (B) the sum of (1) the aggregate option price for such Shares, plus (2) the applicable tax withholding amounts (as determined pursuant to Paragraph 15) for such exercise; provided that in connection with such cashless exercise that would not result in the issuance of a whole number of Shares, the Company shall pay cash in lieu of any fractional Share.

(j) Cash Rights. The Committee may, in its sole discretion, provide in an option document for an eligible Optionee that Cash Rights shall be attached to Non-Qualified Options granted under the Plan. All Cash Rights that are attached to Non-Qualified Options shall be subject to the following terms:

(i) Such Cash Right shall expire no later than the Non-Qualified Option to which it is attached.

(ii) Such Cash Right shall provide for the cash payment of such amount per Share as shall be determined by the Committee and stated in the option document.

(iii) Such Cash Right shall be subject to the same restrictions on transferability as the Non-Qualified Option to which it is attached.

(iv) Such Cash Right shall be exercisable only when such conditions to exercise as shall be determined by the Committee and stated in the option document, if any, have been satisfied.

(v) Such Cash Right shall expire upon the exercise of the Non-Qualified Option to which it is attached.

(vi) Upon exercise of a Cash Right that is attached to a Non-Qualified Option, the Option to which the Cash Right is attached shall expire.

8. **Limitation on Exercise of Incentive Stock Options**

The aggregate Fair Market Value (determined as of the time Options are granted) of the Shares with respect to which Incentive Stock Options may first become exercisable by an Optionee in any one calendar year under the Plan and any other plan of the Company shall not exceed $100,000. The limitations imposed by this Paragraph 8 shall apply only to Incentive Stock Options granted under the Plan, and not to any other options or stock appreciation rights. In the event an individual receives an Option intended to be an Incentive Stock Option which is subsequently determined to have exceeded the limitation set forth above, or if an individual receives Options that first become exercisable in a calendar year (whether pursuant to the terms of an option document, acceleration of exercisability or other change in the terms and conditions of exercise or any other reason) that have an aggregate Fair Market Value (determined as of the time the Options are granted) that exceeds the limitations set forth above, the Options in excess of the limitation shall be treated as Non-Qualified Options.

9. **Rights as Shareholders**

An Optionee shall not have any right as a shareholder with respect to any Shares subject to his Options until the Option shall have been exercised in accordance with the terms of the Plan and the option document and the Optionee shall have paid the full purchase price for the number of Shares in respect of which the Option was exercised and the Optionee shall have made arrangements acceptable to the Sponsor for the payment of applicable taxes consistent with Paragraph 15.

10. **Changes in Capitalization**

In the event that Shares are changed into or exchanged for a different number or kind of shares of stock or other securities of the Sponsor, whether through merger, consolidation, reorganization, recapitalization, stock dividend, stock split-up or other substitution of securities of the Sponsor, the Committee shall make appropriate equitable anti-dilution adjustments to the number and class of shares of stock available for issuance under the Plan, and subject to outstanding Options, and to the option prices and the amounts payable pursuant to any Cash Rights. Any reference to the option price in the Plan and in option documents shall be a reference to the option price as so adjusted. Any reference to the term “Shares” in the Plan and in option

documents shall be a reference to the appropriate number and class of shares of stock available for issuance under the Plan, as adjusted pursuant to this Paragraph 10. The Committee's adjustment shall be effective and binding for all purposes of this Plan.

11. **Terminating Events**

(a) The Sponsor shall give Optionees at least thirty (30) days' notice (or, if not practicable, such shorter notice as may be reasonably practicable) prior to the anticipated date of the consummation of a Terminating Event. Upon receipt of such notice, and for a period of ten (10) days thereafter (or such shorter period as the Board shall reasonably determine and so notify the Optionees), each Optionee shall be permitted to exercise the Option to the extent the Option is then exercisable; provided that, the Sponsor may, by similar notice, require the Optionee to exercise the Option, to the extent the Option is then exercisable, or to forfeit the Option (or portion thereof, as applicable). The Committee may, in its discretion, provide that upon the Optionee's receipt of the notice of a Terminating Event under this Paragraph 11(a), the entire number of Shares covered by Options shall become immediately exercisable.

(b) Notwithstanding Paragraph 11(a), in the event the Terminating Event is not consummated, the Option shall be deemed not to have been exercised and shall be exercisable thereafter to the extent it would have been exercisable if no such notice had been given.

12. **Interpretation**

The Committee shall have the power to interpret the Plan's provisions, prescribe, amend and rescind rules and regulations for the Plan, and make all other determinations necessary or advisable for the administration of the Plan. All determinations by the Committee shall be final, conclusive and binding on all Persons, including Optionees and their beneficiaries. It is intended that the Incentive Stock Options granted under the Plan shall constitute incentive stock options within the meaning of section 422 of the Code, and that Shares transferred pursuant to the exercise of Non-Qualified Options shall constitute property subject to federal income tax pursuant to the provisions of section 83 of the Code. The provisions of the Plan shall be interpreted and applied insofar as possible to carry out such intent.

13. **Amendments**

(a) In General. The Board or the Committee may amend the Plan from time to time in such manner as it may deem advisable. Nevertheless, neither the Board nor the Committee may, without obtaining approval within twelve months before or after such action by such vote of the Sponsor's shareholders as may be required by Pennsylvania law for any action requiring shareholder approval, or by a majority of votes cast at a duly held shareholders' meeting at which a majority of all voting stock is present and voting on such amendment, either in person or in proxy (but not, in any event, less than the vote required pursuant to Rule 16b-3(b) under the 1934 Act) change the class of individuals eligible to receive an Incentive Stock Option, extend the expiration date of the Plan, decrease the minimum option price of an Incentive Stock Option granted under the Plan or increase the maximum number of shares as to which Options may be granted, except as provided in Paragraph 10 hereof.

(b) Repricing of Options and Cash Rights. Notwithstanding any provision in the Plan to the contrary, neither the Board nor the Committee may, without obtaining prior approval by the Sponsor's shareholders, reduce the option or exercise price of any issued and outstanding Option or Cash Right granted under the Plan, including through cancellation and regrant or any other method (including the repurchase of an Option or Cash Right that is "out of the money" in exchange for an Option, Cash Right, cash and/or other property), at any time during the term of such option or Cash Right (other than by adjustment pursuant to Paragraph 10 relating to Changes

in Capitalization). This Paragraph 13(b) may not be repealed, modified or amended without the prior approval of the Sponsor's shareholders.

14. **Securities Law**

(a) In General. The Committee shall have the power to make each grant under the Plan subject to such conditions as it deems necessary or appropriate to comply with the then-existing requirements of the 1933 Act or the 1934 Act, including Rule 16b-3 (or any similar rule) of the Securities and Exchange Commission.

(b) Acknowledgment of Securities Law Restrictions on Exercise. To the extent required by the Committee, unless the Shares subject to the Option are covered by a then current registration statement or a Notification under Regulation A under the 1933 Act, each notice of exercise of an Option shall contain the Optionee's acknowledgment in form and substance satisfactory to the Committee that:

(i) the Shares subject to the Option are being purchased for investment and not for distribution or resale (other than a distribution or resale which, in the opinion of counsel satisfactory to the Sponsor, may be made without violating the registration provisions of the Act);

(ii) the Optionee has been advised and understands that (A) the Shares subject to the Option have not been registered under the 1933 Act and are "restricted securities" within the meaning of Rule 144 under the 1933 Act and are subject to restrictions on transfer and (B) the Sponsor is under no obligation to register the Shares subject to the Option under the 1933 Act or to take any action which would make available to the Optionee any exemption from such registration;

(iii) the book entry recordkeeping system maintained by the Sponsor evidencing the Shares may bear a restrictive legend; and

(iv) the Shares subject to the Option may not be transferred without compliance with all applicable federal and state securities laws.

(c) Delay of Exercise Pending Registration of Securities. Notwithstanding any provision in the Plan or an option document to the contrary, if the Committee determines, in its sole discretion, that issuance of Shares pursuant to the exercise of an Option should be delayed pending registration or qualification under federal or state securities laws or the receipt of a legal opinion that an appropriate exemption from the application of federal or state securities laws is available, the Committee may defer exercise of any Option until such Shares are appropriately registered or qualified or an appropriate legal opinion has been received, as applicable.

15. **Withholding of Taxes on Exercise of Option**

(a) Whenever the Company proposes or is required to deliver or transfer Shares in connection with the exercise of an Option, the Company shall have the right to (i) require the recipient to remit to the Sponsor an amount sufficient to satisfy any federal, state and local withholding tax requirements prior to the delivery or transfer of any such Shares or (ii) take any action whatever that it deems necessary to protect its interests with respect to tax liabilities. The Sponsor's obligation to make any delivery or transfer of Shares on the exercise of an Option shall be conditioned on the recipient's compliance, to the Sponsor's satisfaction, with any withholding requirement. In addition, if the Committee grants Options or amends option documents to permit Options to be transferred during the life of the Optionee, the Committee may include in such option documents such provisions as it determines are necessary or appropriate to permit the Company to deduct compensation expenses recognized upon exercise of such Options for federal or state income tax purposes.

(b) Except as otherwise provided in this Paragraph 15(b), any tax liabilities incurred in connection with the exercise of an Option under the Plan other than an Incentive Stock Option

shall be satisfied by the Sponsor's withholding a portion of the Shares underlying the Option exercised having a Fair Market Value approximately equal to the minimum amount of taxes required to be withheld by the Sponsor under applicable law, unless otherwise determined by the Committee with respect to any Optionee. Notwithstanding the foregoing, except with respect to Options subject to the automatic exercise provisions described in Paragraph 7(h)(ii), the Committee may permit an Optionee to elect one or more of the following:

(i) To the extent permitted by law, to have taxes withheld in excess of the minimum amount required to be withheld by the Sponsor under applicable law; provided that the Optionee certifies in writing to the Sponsor that the Optionee owns a number of Other Available Shares having a Fair Market Value that is at least equal to the Fair Market Value of Option Shares to be withheld by the Sponsor for the then-current exercise on account of withheld taxes in excess of such minimum amount;

(ii) With respect to Options (other than Incentive Stock Options) exercised on and after January 1, 2017, to have Shares otherwise deliverable to the Optionee after the application of this Paragraph 15(b) redeemed by the Sponsor for the Fair Market Value of such Shares on the date of the exercise of the applicable Option, and have the cash proceeds of such redemption remitted by the Sponsor to the Optionee to facilitate one or more estimated tax payments to the Internal Revenue Service or other taxing authority for the taxable year in which the Optionee exercises the Option, provided that the Optionee certifies in writing to the Sponsor at the time of such election that the Optionee owns Other Available Shares having a Fair Market Value that is at least equal to the Fair Market Value of such Shares to be redeemed by the Sponsor; and

(iii) To pay to the Sponsor in cash all or a portion of the taxes to be withheld upon the exercise of an Option.

In all cases, the Shares so withheld or redeemed by the Sponsor, as applicable, shall have a Fair Market Value that does not exceed the amount of taxes to be withheld or remitted via estimated tax payments minus the cash payment, if any, made by the Optionee. Any election pursuant to this Paragraph 15(b) must be in writing made prior to the date specified by the Committee, and in any event prior to the date the amount of tax to be withheld or paid is determined. An election pursuant to this Paragraph 15(b) may be made only by an Optionee or, in the event of the Optionee's death, by the Optionee's legal representative. Shares withheld or redeemed, as applicable, pursuant to this Paragraph 15(b) shall not continue to be available for subsequent grants under the Plan. The Committee may add such other requirements and limitations regarding elections pursuant to this Paragraph 15(b) as it deems appropriate.

(c) Except as otherwise provided in this Paragraph 15(c), any tax liabilities incurred in connection with the exercise of an Incentive Stock Option under the Plan (other than an Incentive Stock Option that is subject to the automatic exercise provisions described in Paragraph 7(h)(ii)), shall be satisfied by the Optionee's payment to the Sponsor in cash all of the taxes to be withheld upon exercise of the Incentive Stock Option. Notwithstanding the foregoing, the Committee may permit an Optionee to elect to have the Sponsor withhold a portion of the Shares underlying the Incentive Stock Option exercised having a Fair Market Value approximately equal to the minimum amount of taxes required to be withheld by the Sponsor under applicable law. Any tax liabilities incurred in connection with the automatic exercise of an Incentive Stock Option that is subject to

the automatic exercise provisions described in Paragraph 7(h)(ii) shall be satisfied by the Sponsor's withholding of a portion of the Shares underlying the Incentive Stock Option exercised having a Fair Market Value approximately equal to the minimum amount of taxes required to be withheld by the Sponsor under applicable law. Any election pursuant to this Paragraph 15(c) must be in writing made prior to the date specified by the Committee, and in any event prior to the date the amount of tax to be withheld or paid is determined. An election pursuant to this Paragraph 15(c) may be made only by an Optionee or, in the event of the Optionee's death, by the Optionee's legal representative. Shares withheld pursuant to this Paragraph 15(c) shall not continue to be available for subsequent grants under the Plan. The Committee may add such other requirements and limitations regarding elections pursuant to this Paragraph 15(c) as it deems appropriate.

16. **Effective Date and Term of Plan**

This amendment and restatement of the Plan shall be effective December 18, 2018, except as otherwise specifically provided herein. The Plan shall expire on May 19, 2026, unless sooner terminated by the Board.

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17. **General**

Each Option shall be evidenced by a written instrument containing such terms and conditions not inconsistent with the Plan as the Committee may determine. The issuance of Shares on the exercise of an Option shall be subject to all of the applicable requirements of the corporation law of the Sponsor's state of incorporation and other applicable laws, including federal or state securities laws, and all Shares issued under the Plan shall be subject to the terms and restrictions contained in the Articles of Incorporation and By-Laws of the Sponsor, as amended from time to time.

Executed on the 18th day of December, 2018.

COMCAST CORPORATION

BY: /s/ David L. Cohen

ATTEST: /s/ Arthur R. Block

COMCAST CORPORATION

2005 DEFERRED COMPENSATION PLAN

ARTICLE 1 - BACKGROUND AND COVERAGE OF PLAN

1.1. Background and Adoption of Plan.

1.1.1. Amendment and Restatement of the Plan. In recognition of the services provided by certain key employees and in order to make additional retirement benefits and increased financial security available on a tax-favored basis to those individuals, the Board of Directors of Comcast Corporation, a Pennsylvania corporation (the "Board"), hereby amends and restates the Comcast Corporation 2005 Deferred Compensation Plan (the "Plan"). The Plan has previously been amended and restated from time to time, in light of the enactment of section 409A of the Internal Revenue Code of 1986, as amended (the "Code") as part of the American Jobs Creation Act of 2004, and the issuance of various Notices, Announcements, Proposed Regulations and Final Regulations thereunder (collectively, "Section 409A"), and to make desirable changes to the rules of the Plan.

1.1.2. Prior Plan. Prior to January 1, 2005, the Comcast Corporation 2002 Deferred Compensation Plan (the "Prior Plan") was in effect. In order to preserve the favorable tax treatment available to deferrals under the Prior Plan in light of the enactment of Section 409A, the Board has prohibited future deferrals under the Prior Plan of amounts earned and vested on and after January 1, 2005. Amounts earned and vested prior to January 1, 2005 are and will remain subject to the terms of the Prior Plan. Amounts earned and vested on and after January 1, 2005 will be available to be deferred pursuant to the Plan, subject to its terms and conditions.

1.2. Reservation of Right to Amend to Comply with Section 409A. In addition to the powers reserved to the Board and the Committee under Article 10 of the Plan, the Board and the Committee reserve the right to amend the Plan, either retroactively or prospectively, in whatever respect is required to achieve and maintain compliance with the requirements of Section 409A.

1.3. Plan Unfunded and Limited to Outside Directors, Directors Emeriti and Select Group of Management or Highly Compensated Employees. The Plan is unfunded and is maintained primarily for the purpose of providing Outside Directors, Directors Emeriti and a select group of management or highly compensated employees the opportunity to defer the receipt of compensation otherwise payable to such Outside Directors, Directors Emeriti and eligible employees in accordance with the terms of the Plan.

1.4. References to Written Forms, Elections and Notices. Any action under the Plan that requires a written form, election, notice or other action shall be treated as completed if taken via electronic or other means, to the extent authorized by the Administrator.

ARTICLE 2- DEFINITIONS

2.1. "Account" means the bookkeeping accounts established pursuant to Section 5.1 and maintained by the Administrator in the names of the respective Participants, to which all amounts deferred and earnings allocated under the Plan shall be credited, and from which all amounts distributed pursuant to the Plan shall be debited.

2.2 “Active Participant” means:

(a) Each Participant who is in active service as an Outside Director or a Director Emeritus; and

(b) Each Participant who is actively employed by a Participating Company as an Eligible Employee.

2.3 “Administrator” means the Committee or its delegate.

2.4. “Affiliate” means, with respect to any Person, any other Person that, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, the term “control,” including its correlative terms “controlled by” and “under common control with,” mean, with respect to any Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

2.5. “Annual Rate of Pay” means, as of any date, an employee’s annualized base pay rate. An employee’s Annual Rate of Pay shall not include sales commissions or other similar payments or awards, including payments earned under any sales incentive arrangement for employees of NBCUniversal.

2.6. “Applicable Interest Rate.”

(a) Active Participants.

(i) Protected Account Balances. Except as otherwise provided in Sections 2.6(b), with respect to Protected Account Balances, the term “Applicable Interest Rate,” means the interest rate that, when compounded daily pursuant to rules established by the Administrator from time to time, is mathematically equivalent to 12% (0.12) per annum, compounded annually.

(ii) Contributions Credited on and after January 1, 2014 (on and after January 1, 2013 for Eligible NBCUniversal Employees). Except as otherwise provided in Sections 2.6(b):

(A) For amounts (other than Protected Account Balances) credited to Accounts of Eligible Comcast Employees, Outside Directors and Directors Emeriti with respect to Compensation earned on and after January 1, 2014 or pursuant to Section 3.8, and for amounts credited pursuant to Subsequent Elections filed on and after January 1, 2014 that are attributable to such amounts, the term “Applicable Interest Rate,” means the interest rate that, when compounded daily pursuant to rules established by the Administrator from time to time, is mathematically equivalent to 9% (0.09) per annum, compounded annually.

(B) For amounts credited to Accounts of Eligible NBCUniversal Employees on and after January 1, 2013 and for amounts credited pursuant to Subsequent Elections filed after December 31, 2012 that are attributable to amounts credited to Accounts pursuant to Initial Elections filed with respect to Compensation earned after December 31, 2012, the term “Applicable Interest Rate,” means the interest rate that, when compounded daily pursuant to rules established by the Administrator from time to time, is mathematically equivalent to 9% (0.09) per annum, compounded annually.

(b) Effective for the period beginning as soon as administratively practicable following a Participant's employment termination date to the date the Participant's Account is distributed in full, the Administrator, in its sole discretion, may designate the term "Applicable Interest Rate" for such Participant's Account to mean the lesser of (i) the rate in effect under Section 2.6(a) or (ii) the Prime Rate plus one percent. A Participant's re-employment by a Participating Company following an employment termination date shall not affect the Applicable Interest Rate that applies to the part of the Participant's Account (including interest credited with respect to such part of the Participant's Account) that was credited before such employment termination date. Notwithstanding the foregoing, the Administrator may delegate its authority to determine the Applicable Interest Rate under this Section 2.6(b) to an officer of the Company or committee of two or more officers of the Company.

2.7. "Beneficiary" means such person or persons or legal entity or entities, including, but not limited to, an organization exempt from federal income tax under section 501(c)(3) of the Code, designated by a Participant or Beneficiary to receive benefits pursuant to the terms of the Plan after such Participant's or Beneficiary's death. If no Beneficiary is designated by the Participant or Beneficiary, or if no Beneficiary survives the Participant or Beneficiary (as the case may be), the Participant's Beneficiary shall be the Participant's Surviving Spouse if the Participant has a Surviving Spouse and otherwise the Participant's estate, and the Beneficiary of a Beneficiary shall be the Beneficiary's Surviving Spouse if the Beneficiary has a Surviving Spouse and otherwise the Beneficiary's estate.

2.8. "Board" means the Board of Directors of the Company.

2.9. "Change of Control" means any transaction or series of transactions that constitutes a change in the ownership or effective control or a change in the ownership of a substantial portion of the assets of the Company, within the meaning of Section 409A.

2.10. "Code" means the Internal Revenue Code of 1986, as amended.

2.11. "Comcast Spectacor" means Comcast Spectacor, L.P.

2.12. "Committee" means the Compensation Committee of the Board of Directors of the Company.

2.13. "Company" means Comcast Corporation, a Pennsylvania corporation, including any successor thereto by merger, consolidation, acquisition of all or substantially all the assets thereof, or otherwise.

2.14. "Company Stock" means with respect to amounts credited to the Company Stock Fund pursuant to deferral elections by Outside Directors or Directors Emeriti made pursuant to Section 3.1(a), Comcast Corporation Class A Common Stock, par value $0.01, including a fractional share, and such other securities issued by Comcast Corporation as may be subject to adjustment in the event that shares of either class of Company Stock are changed into, or exchanged for, a different number or kind of shares of stock or other securities of the Company, whether through merger, consolidation, reorganization, recapitalization, stock dividend, stock split-up or other substitution of securities of the Company. In such event, the Committee shall make appropriate equitable anti-dilution adjustments to the number and class of hypothetical shares of Company Stock credited to Participants' Accounts under the Company Stock Fund. Any reference to the term "Company Stock" in the Plan shall be a reference to the appropriate number and class of shares of stock as adjusted pursuant to this Section 2.14. The Committee's adjustment shall be effective and binding for all purposes of the Plan.

2.15. “Company Stock Fund” means a hypothetical investment fund pursuant to which income, gains and losses are credited to a Participant’s Account as if the Account, to the extent deemed invested in the Company Stock Fund, were invested in hypothetical shares of Company Stock, and all dividends and other distributions paid with respect to Company Stock shall be credited to the Income Fund.

2.16. “Compensation” means:

(a) In the case of an Outside Director, the total remuneration payable in cash or payable in Company Stock (as elected by an Outside Director pursuant to the Comcast Corporation 2002 Non-Employee Director Compensation Plan) for services as a member of the Board and as a member of any Committee of the Board and in the case of a Director Emeritus, the total remuneration payable in cash for services to the Board.

(b) In the case of an Eligible Employee, the total cash remuneration for services payable by a Participating Company, excluding (i) Severance Pay, (ii) sales commissions or other similar payments or awards other than cash bonus arrangements described in Section 2.16(c), (iii) bonuses earned under any program designated by the Company’s Programming Division as a “long-term incentive plan” and (iv) cash bonuses earned under any long-term incentive plan for employees of NBCUniversal.

(c) Except as otherwise provided by the Administrator, with respect to any Eligible Employee who is employed by NBCUniversal or any cash bonus arrangement maintained for the benefit of employees of NBCUniversal under which there is a defined sales incentive target goal and target payout that provides for payment on a quarterly, semi-annual or annual basis, the term “Compensation” shall include cash bonuses earned under any such sales incentive arrangement for employees of NBCUniversal, provided that such cash bonus arrangement is the exclusive cash bonus arrangement in which such Eligible Employee is eligible to participate.

2.17. “Contribution Limit” means the product of (a) seven (7) times (b) Total Compensation.

2.18. “Death Tax Clearance Date” means the date upon which a Deceased Participant’s or a deceased Beneficiary’s Personal Representative certifies to the Administrator that (i) such Deceased Participant’s or deceased Beneficiary’s Death Taxes have been finally determined, (ii) all of such Deceased Participant’s or deceased Beneficiary’s Death Taxes apportioned against the Deceased Participant’s or deceased Beneficiary’s Account have been paid in full and (iii) all potential liability for Death Taxes with respect to the Deceased Participant’s or deceased Beneficiary’s Account has been satisfied.

2.19.“Death Taxes” means any and all estate, inheritance, generation-skipping transfer, and other death taxes as well as any interest and penalties thereon imposed by any governmental entity (a “taxing authority”) as a result of the death of the Participant or the Participant’s Beneficiary.

2.20.“Deceased Participant” means a Participant whose employment, or, in the case of a Participant who was an Outside Director or Director Emeritus, a Participant whose service as an Outside Director or Director Emeritus, is terminated by death.

2.21. “Director Emeritus” means an individual designated by the Board, in its sole discretion, as Director Emeritus, pursuant to the Board’s Director Emeritus Policy.

2.22. “Disability” means:

(a) an individual’s inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months; or

(b) circumstances under which, by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than 12 months, an individual is receiving income replacement benefits for a period of not less than three months under an accident or health plan covering employees of the individual’s employer.

2.23. “Disabled Participant” means:

(a) A Participant whose employment or, in the case of a Participant who is an Outside Director or Director Emeritus, a Participant whose service as an Outside Director or Director Emeritus, is terminated by reason of Disability;

(b) The duly-appointed legal guardian of an individual described in Section 2.23(a) acting on behalf of such individual.

2.24. “Domestic Relations Order” means any judgment, decree or order (including approval of a property settlement agreement) which:

(a) Relates to the provision of child support, alimony payments or marital property rights to a spouse or former spouse of a Participant; and

(b) Is made pursuant to a State domestic relations law (including a community property law).

2.25. “Eligible Comcast Employee” means an employee of a Participating Company described in Section 2.25(a) through 2.25(e) below, provided that except as otherwise designated by the Administrator, in the case of an employee of the Company or a subsidiary of the Company (other than NBCUniversal), such individual’s Compensation is administered under the Company’s common payroll system, and in the case of an employee of NBCUniversal, such individual’s Compensation is administered under NBCUniversal’s common payroll system:

(a) For the 2012 Plan Year, each employee of a Participating Company who was an Eligible Employee under the rules of the Plan as in effect on December 31, 2011, including employees who are Comcast-legacy employees of NBCUniversal.

(b) For the 2013 Plan Year, (i) each employee of a Participating Company other than NBCUniversal and (ii) each employee of NBCUniversal described in Section 2.25(a), provided that in each case, such employee has an Annual Rate of Pay of $200,000 or more as of both (iii) the date on which an Initial Election is filed with the Administrator for the 2013 Plan Year and (iv) January 1, 2013.

(c) For the period extending from January 1, 2014 through December 31, 2018, (i) each employee of a Participating Company other than NBCUniversal and (ii) each employee of NBCUniversal described in Section 2.25(a) whose Compensation was administered under NBCUniversal's common payroll system as of December 31, 2013, provided that in each case, such employee has an Annual Rate of Pay of $250,000 or more as of both the date on which an Initial Election is filed with the Administrator and the first day of the calendar year in which such Initial Election is filed.

(d) Effective on and after January 1, 2019, each employee of a Participating Company other than NBCUniversal, provided that such employee has an Annual Rate of Pay of $350,000 or more as of both (i) the date on which an Initial Election is filed with the Administrator and (ii) the first day of the calendar year in which such Initial Election is filed.

(e) Each Grandfathered Employee who is an employee of a Participating Company other than NBCUniversal.

(f) Each New Key Employee who is an employee of a Participating Company other than NBCUniversal.

(g) Each Eligible Comcast Spectacor Employee.

2.26. "Eligible Comcast Spectacor Employee" means:

(a) Each Eligible Comcast Employee who is providing services to Comcast Spectacor under a secondment arrangement between the Company and Comcast Spectacor.

(b) Each employee of Comcast Spectacor, provided that such employee (i) has been designated as an Eligible Comcast Spectacor Employee by the Administrator or its delegate and (ii) has an Annual Rate of Pay of $350,000 or more as of both (x) the date on which an Initial Election is filed with the Administrator and (y) the first day of the calendar year in which such Initial Election is filed.

2.27. "Eligible Employee" means:

(a) Each Eligible Comcast Employee;

(b) Each Eligible NBCU Employee; and

(c) Each other employee of a Participating Company who is designated by the Administrator, in its discretion, as an Eligible Employee.

2.28. "Eligible NBCU Employee" means:

(a) Effective for the period extending from January 1, 2013 through December 31, 2018, an employee of NBCUniversal described in Section 2.28(a)(i) through 2.28(a)(v) below, provided that, in each case, except as otherwise designated by the Administrator, such individual's Compensation is administered under NBCUniversal's common payroll system.

(i) Each employee of NBCUniversal who has been designated as a member of NBCUniversal's Executive Committee, Management Committee or Operating Committee by

the Chief Executive Officer of NBCUniversal and approved by the Administrator, other than an employee who is described in Section 2.25.

(ii) Each employee of NBCUniversal, other than an employee who is described in Section 2.25, who, for the 2013 Plan Year:

(A) Is not a member of NBCUniversal's Executive Committee, Management Committee or Operating Committee;

(B) Transferred employment directly from the Company to NBCUniversal in 2011 or 2012;

(C) Was an Eligible Employee under the rules of the Plan as in effect immediately before transferring employment from the Company to NBCUniversal;

(D) Elected to waive the opportunity to continue to be an Eligible Employee following the transfer of employment directly from the Company to NBCUniversal;

(E) Has an Annual Rate of Pay of $200,000 or more as of both (iii) the date on which an Initial Election is filed with the Administrator for the 2013 Plan Year and (iv) January 1, 2013; and

(F) Files an Initial Election with the Administrator for the 2013 Plan Year.

(iii) Each employee of NBCUniversal, other than an employee who is described in Section 2.25, who, for the 2013 Plan Year:

(A) Is not a member of NBCUniversal's Executive Committee, Management Committee or Operating Committee;

(B) Has been a participant in the NBCUniversal Supplementary Pension Plan for the period extending from January 29, 2011 through December 31, 2012;

(C) Has an Annual Rate of Pay is $200,000 or more as of both (iii) the date on which an Initial Election is filed with the Administrator for the 2013 Plan Year and (iv) January 1, 2013; and

(D) Files an Initial Election with the Administrator for the 2013 Plan Year.

(iv) Each Grandfathered Employee who is an employee of NBCUniversal.

(v) Each New Key Employee who is an employee of NBCUniversal.

(b) Effective on and after January 1, 2019, an employee of NBCUniversal described in Section 2.28(b)(i) through 2.28(b)(iii) below, provided that, in each case, except as otherwise designated by the Administrator, such individual's Compensation is administered under NBCUniversal's common payroll system.

(i) Each employee of NBCUniversal who has been designated as a member of NBCUniversal's Executive Committee or Management Committee by the Chief Executive Officer of NBCUniversal and approved by the Administrator, other than an employee who is described in Section 2.25.

(ii) Each Grandfathered Employee who is an employee of NBCUniversal.

(iii) Each New Key Employee who is an employee of NBCUniversal.

2.29. "Fair Market Value"

(a) If shares of Company Stock are listed on a stock exchange, Fair Market Value shall be determined based on the last reported sale price of a share on the principal exchange on which shares are listed on the date of determination, or if such date is not a trading day, the next trading date.

(b) If shares of Company Stock are not so listed, but trades of shares are reported on the Nasdaq National Market, Fair Market Value shall be determined based on the last quoted sale price of a share on the Nasdaq National Market on the date of determination, or if such date is not a trading day, the next trading date.

(c) If shares of Company Stock are not so listed nor trades of shares so reported, Fair Market Value shall be determined by the Committee in good faith.

2.30. "Grandfathered Employee" means:

(a) Effective before January 1, 2014:

(i) Each employee of a Participating Company other than NBCUniversal who, as of December 31, 1989, was eligible to participate in the Prior Plan and who has been in continuous service to the Company or an Affiliate since December 31, 1989.

(ii) Each employee of a Participating Company other than NBCUniversal who was, at any time before January 1, 1995, eligible to participate in the Prior Plan and whose Annual Rate of Pay was $90,000 or more as of both (A) the date on which an Initial Election is filed with the Administrator and (B) the first day of each calendar year beginning after December 31, 1994.

(iii) Each employee of a Participating Company other than NBCUniversal who was an employee of an entity that was a Participating Company in the Prior Plan as of June 30, 2002 and who had an Annual Rate of Pay of $125,000 as of each of (i) June 30, 2002; (ii) the date on which an Initial Election was filed with the Administrator and (iii) the first day of each calendar year beginning after December 31, 2002.

(iv) Each employee of a Participating Company other than NBCUniversal who (i) as of December 31, 2002, was an "Eligible Employee" within the meaning of Section 2.34 of the AT&T Broadband Deferred Compensation Plan (as amended and restated, effective

November 18, 2002) with respect to whom an account was maintained, and (ii) for the period beginning on December 31, 2002 and extending through any date of determination, has been actively and continuously in service to the Company or an Affiliate.

(b) Effective for the period extending from January 1, 2014 through December 31, 2018:

(i) Each employee of a Participating Company other than NBCUniversal who is described in Section 2.28(a)(i)-(iv).

(ii) Each employee of a Participating Company other than NBCUniversal who is a Participant and who has an Annual Rate of Pay of $200,000 or more as of each of (A) December 31, 2013; (B) the date on which an Initial Election is filed with the Administrator and (C) the first day of each calendar year beginning after December 31, 2013.

(iii) Each employee of NBCUniversal described in Section 2.28(a)(ii) or 2.28(a)(iii) who is a Participant and who has an Annual Rate of Pay of $200,000 or more as of each of (A) December 31, 2013; (B) the date on which an Initial Election is filed with the Administrator and (C) the first day of each calendar year beginning after December 31, 2013.

(c) Effective for the period extending from January 1, 2019 through December 31, 2020, each employee of a Participating Company who either has a balance credited to his Account as of December 31, 2018, or has filed an Initial Election to defer bonus earned for the 2018 Plan Year and who:

(i) is an employee of NBCUniversal described in Section 2.25(a) whose Compensation was administered under NBCUniversal's common payroll system as of December 31, 2013, has an Annual Rate of Pay of $250,000 or more as of both the date on which an Initial Election is filed with the Administrator and the first day of the calendar year in which such Initial Election is filed;

(ii) is described in Section 2.28(a)(i), and who is a member of NBCUniversal's Operating Committee (but not NBCUniversal's Executive Committee or Management Committee); or

(iii) is described in Section 2.30(b).

2.31. "Hardship" means an "unforeseeable emergency," as defined in Section 409A. The Committee shall determine whether the circumstances of the Participant constitute an unforeseeable emergency and thus a Hardship within the meaning of this Section 2.31. Following a uniform procedure, the Committee's determination shall consider any facts or conditions deemed necessary or advisable by the Committee, and the Participant shall be required to submit any evidence of the Participant's circumstances that the Committee requires. The determination as to whether the Participant's circumstances are a case of Hardship shall be based on the facts of each case; provided however, that all determinations as to Hardship shall be uniformly and consistently made according to the provisions of this Section 2.31 for all Participants in similar circumstances.

2.32. "High Water Mark" means:

(a) With respect to amounts credited pursuant to an Eligible Comcast Employee's Initial Elections on account of Compensation earned in 2014, the highest of the sum of the amounts described in (i), (ii) and (iii) below as of the last day of any calendar quarter beginning after December 31, 2008 and before October 1, 2013:

(i) An Eligible Comcast Employee's Account; plus

(ii) Such Eligible Comcast Employee's Account in the Prior Plan; plus

(iii) Such Eligible Comcast Employee's Account in the Restricted Stock Plan to the extent such Account is credited to the "Income Fund."

(b) With respect to amounts credited pursuant to an Eligible Comcast Employee's Initial Elections on account of Compensation earned after 2014, the sum of (x) plus (y) where (x) equals the highest of the sum of the amounts described in Section 2.32(a)(i), (ii) and (iii) as of the last day of any calendar quarter beginning after December 31, 2008 and before January 1, 2014, and (y) equals the sum of:

(i) The amount credited to an Eligible Comcast Employee's Account pursuant to Section 3.8 after December 31, 2013 and on or before September 30, 2014 that is contractually committed pursuant to an employment agreement entered into on or before December 31, 2013; plus

(ii) The deferred portion of an Eligible Comcast Employee's cash bonus award earned for 2013 and payable, but for the Eligible Comcast Employee's Initial Deferral Election, after December 31, 2013 and on or before September 30, 2014; plus

(iii) The amount credited to the Eligible Comcast Employee's "Income Fund" under the Restricted Stock Plan pursuant to a "Diversification Election" made by an Eligible Comcast Employee before January 1, 2014 with respect to restricted stock units that vest under the Restricted Stock Plan after December 31, 2013 and on or before September 30, 2014.

2.33. "Inactive Participant" means each Participant (other than a Retired Participant, Deceased Participant or Disabled Participant) who is not in active service as an Outside Director or Director Emeritus and is not actively employed by a Participating Company.

2.34. "Income Fund" means a hypothetical investment fund pursuant to which income, gains and losses are credited to a Participant's Account as if the Account, to the extent deemed invested in the Income Fund, were credited with interest at the Applicable Interest Rate.

2.35. "Initial Election."

(a) Outside Directors and Directors Emeriti. With respect to Outside Directors and Directors Emeriti, the term "Initial Election" means one or more written elections on a form provided by the Administrator and filed with the Administrator in accordance with Article 3, pursuant to which an Outside Director or Director Emeritus may:

(i) Elect to defer any portion of the Compensation payable for the performance of services as an Outside Director or a Director Emeritus, net of required withholdings and deductions as determined by the Administrator in its sole discretion; and

(ii) Designate the time of payment of the amount of deferred Compensation to which the Initial Election relates.

(b) Eligible Employees. The term "Initial Election" means one or more written elections provided by the Administrator and filed with the Administrator in accordance with Article 3 pursuant to which an Eligible Employee may:

(i) Subject to the limitations described in Section 2.35(b)(iii), elect to defer Compensation payable for the performance of services as an Eligible Employee following the time that such election is filed; and

(ii) Designate the time of payment of the amount of deferred Compensation to which the Initial Election relates.

(iii) The following rules shall apply to Initial Elections:

(A) Subject to the limits on deferrals of Compensation described in Section 2.35(b)(iii)(B) and Section 2.35(b)(iii)(C):

(1) the maximum amount of base salary available for deferral shall be determined net of required withholdings and deductions as determined by the Administrator in its sole discretion, but shall in no event be less than 85% of the Participant's base salary and

(2) the maximum amount of a Signing Bonus available for deferral pursuant to an Initial Election shall not exceed 50%.

(B) The maximum amount subject to Initial Elections for any Plan Year shall not exceed 35% of Total Compensation.

(C) No Initial Election with respect to Compensation expected to be earned in a Plan Year shall be effective if the sum of (x) the value of the Eligible Employee's Account in the Plan, plus (y) the value of the Eligible Employee's Account in the Prior Plan, plus (z) the value of the Eligible Employee's Account in the Restricted Stock Plan to the extent such Account is credited to the "Income Fund" thereunder, exceeds the Contribution Limit with respect to such Plan Year, determined as of September 30th immediately preceding such Plan Year.

2.36. "NBCUniversal" means NBCUniversal, LLC and its subsidiaries.

2.37."New Key Employee" means:

(a) Employees of Comcast.

(i) Effective for the period extending from January 1, 2014 through December 31, 2018, and except as provided in Section 2.37(d), each employee of a Participating Company other than NBCUniversal and Comcast Spectacor:

(A) who (x) becomes an employee of a Participating Company and (y) has an Annual Rate of Pay of $250,000 or more as of his employment commencement date, or

(B) who (x) has an Annual Rate of Pay that is increased to $250,000 or more and (y) immediately preceding such increase, was not an Eligible Employee.

(ii) Effective on and after January 1, 2019, and except as provided in Section 2.37(d), each employee of a Participating Company other than NBCUniversal and Comcast Spectacor:

(A) who (x) becomes an employee of a Participating Company and (y) has an Annual Rate of Pay of $350,000 or more as of his employment commencement date, or

(B) who (x) has an Annual Rate of Pay that is increased to $350,000 or more and (y) immediately preceding such increase, was not an Eligible Employee.

(b) Employees of NBCUniversal.

(i) Effective for the period extending from January 1, 2013 through December 31, 2018, and except as provided in Section 2.37(d), each employee of NBCUniversal who (x) first becomes a member of the NBCUniversal Executive Committee, Management Committee or Operating Committee, and approved by the Administrator during a Plan Year and (y) immediately preceding the effective date of such membership, was not an Eligible Employee.

(ii) Effective on and after January 1, 2019, and except as provided in Section 2.37(d), each employee of NBCUniversal who (x) first becomes a member of the NBCUniversal Executive Committee or the NBCUniversal Management Committee and approved by the Administrator during a Plan Year and (y) immediately preceding the effective date of such membership, was not an Eligible Employee.

(c) Effective on and after May 20, 2014, and except as provided in Section 2.37(d), each employee of Comcast Spectacor:

(i) who (x) becomes an employee of Comcast Spectacor, (y) has an Annual Rate of Pay of $350,000 or more as of his employment commencement date and (z) is designated as an Eligible Comcast Spectacor Employee by the Administrator or its delegate, or

(ii) who (x) is designated as an Eligible Comcast Spectacor Employee by the Administrator or its delegate, (y) has an Annual Rate of Pay that is increased to $350,000 or more and (z) immediately preceding such increase, was not an Eligible Employee.

(d) Notwithstanding Section 2.37(a), (b), or (c) to the contrary, no employee shall be treated as a New Key Employee with respect to any Plan Year under this Section 2.37 if:

(i) Such employee was eligible to participate in another plan sponsored by the Company or an Affiliate of the Company which is considered to be of a similar type as defined in Treasury Regulation Section 1.409A-1(c)(2)(i)(A) or (B) with respect to such Plan Year; or

(ii) Such employee has been eligible to participate in the Plan or any other plan referenced in Section 2.37(d)(i) (other than with respect to the accrual of earnings) at any time during the 24-month period ending on the date such employee would, but for this Section 2.37(e), otherwise become a New Key Employee.

2.38. “Normal Retirement” means:

(a) For a Participant who is an employee of a Participating Company immediately preceding his termination of employment, a termination of employment that is treated by the Participating Company as a retirement under its employment policies and practices as in effect from time to time; and

(b) For a Participant who is an Outside Director or Director Emeritus immediately preceding his termination of service, the Participant’s normal retirement from the Board.

2.39. “Outside Director” means a member of the Board, who is not an employee of a Participating Company.

2.40. “Participant” means each individual who has made an Initial Election, or for whom an Account is established pursuant to Section 5.1, and who has an undistributed amount credited to an Account under the Plan, including an Active Participant, a Deceased Participant and an Inactive Participant.

2.41. “Participating Company” means the Company, Comcast Spectacor and each other Affiliate of the Company in which the Company owns, directly or indirectly, 50 percent or more of the voting interests or value, other than such an affiliate designated by the Administrator as an excluded Affiliate. Notwithstanding the foregoing, the Administrator may delegate its authority to designate an eligible Affiliate as an excluded Affiliate under this Section 2.41 to an officer of the Company or committee of two or more officers of the Company.

2.42. “Performance-Based Compensation” means “Performance-Based Compensation” within the meaning of Section 409A.

2.43. “Performance Period” means a period of at least 12 months during which a Participant may earn Performance-Based Compensation. Effective for Comcast Spectacor’s fiscal years beginning on and after July 1, 2014, the Performance Period for annual incentive bonuses earned by Eligible Comcast Spectacor Employees shall be Comcast Spectacor’s fiscal year ending June 30.

2.44. “Person” means an individual, a corporation, a partnership, an association, a trust or any other entity or organization.

2.45. “Plan” means the Comcast Corporation 2005 Deferred Compensation Plan, as set forth herein, and as amended from time to time.

2.46. Plan Year” means the calendar year.

2.47.“Prime Rate” means, for any calendar year, the interest rate that, when compounded daily pursuant to rules established by the Administrator from time to time, is mathematically equivalent to the prime rate of interest (compounded annually) as published in the Eastern Edition of The Wall Street Journal on the last business day preceding the first day of such calendar year, and as adjusted as of the last business day preceding the first day of each calendar year beginning thereafter.

2.48. “Prior Plan” means the Comcast Corporation 2002 Deferred Compensation Plan.

2.49. “Protected Account Balance” means:

(a) The amount credited to the Account of an Eligible Comcast Employee, an Outside Director or a Director Emeritus pursuant to Initial Elections and Subsequent Elections with respect to Compensation earned before January 1, 2014 or pursuant to Company Credits described in Section 3.8 that are credited before January 1, 2014, including interest credits attributable to such amount.

(b) The portion of an Eligible Comcast Employee's Account attributable to Company Credits described in Section 3.8 that are made pursuant to an employment agreement entered into on or before December 31, 2013, including interest credits attributable to such amount.

(c) The amount credited pursuant to Initial Elections with respect to Compensation earned in 2014 or 2015, if, as of the September 30th immediately preceding the Plan Year to which the Initial Election applies, the sum of:

(i) An Eligible Comcast Employee's Account; plus

(ii) Such Eligible Comcast Employee's Account in the Prior Plan; plus

(iii) Such Eligible Comcast Employee's Account in the Restricted Stock Plan to the extent such Account is credited to the "Income Fund;"
is less than the High Water Mark.

(d) The amount credited pursuant to Initial Elections with respect to Compensation earned on and after January 1, 2016 and the amount credited to an Eligible Comcast Employee's Account attributable to Company Credits described in Section 3.8 after May 20, 2015 (other than Company Credits described in Section 2.49(b)), if, as of the September 30th immediately preceding the Plan Year in which such amounts are creditable, the sum of:

(i) An Eligible Comcast Employee's Account; plus

(ii) Such Eligible Comcast Employee's Account in the Prior Plan; plus

(iii) Such Eligible Comcast Employee's Account in the Restricted Stock Plan to the extent such Account is credited to the "Income Fund;"
is less than the High Water Mark.

(e) The amount credited pursuant to Subsequent Elections filed after December 31, 2013 that are attributable to any portion of an Eligible Comcast Employee's Account described in this Section 2.49.

Notwithstanding Sections 2.49(a), (b), (c), (d) and (e), except as otherwise provided by the Administrator, the Protected Account Balance of an Eligible Comcast Employee who is re-employed by a Participating Company following an employment termination date that occurs after December 31, 2013 shall be zero.

2.50. "Restricted Stock Plan" means the Comcast Corporation 2002 Restricted Stock Plan (or any successor plan).

2.51. "Retired Participant" means a Participant who has terminated service pursuant to a Normal Retirement.

2.52. “Severance Pay” means any amount that is payable in cash and is identified by a Participating Company as severance pay, or any amount which is payable on account of periods beginning after the last date on which an employee (or former employee) is required to report for work for a Participating Company.

2.53. “Signing Bonus” means Compensation payable in cash and designated by the Administrator as a special bonus intended to induce an individual to accept initial employment (or re-employment) by a Participating Company or to execute an employment agreement, or an amount payable in connection with a promotion.

2.54. “Subsequent Election” means one or more written elections on a form provided by the Administrator, filed with the Administrator in accordance with Article 3, pursuant to which a Participant or Beneficiary may elect to defer the time of payment of amounts previously deferred in accordance with the terms of a previously made Initial Election or Subsequent Election.

2.55. “Surviving Spouse” means the widow or widower, as the case may be, of a Deceased Participant or a Deceased Beneficiary (as applicable).

2.56. “Third Party” means any Person, together with such Person’s Affiliates, provided that the term “Third Party” shall not include the Company or an Affiliate of the Company.

2.57. “Total Compensation” means:

(a) The sum of an Eligible Employee’s Annual Rate of Pay, plus Company Credits described in Section 3.8, plus any target bonus amount under a cash bonus award that is includible as “Compensation” under Section 2.16, plus the grant date value of any annual long-term incentive award granted in the immediately preceding Plan Year, all as determined by the Administrator in its sole discretion, as of the September 30th immediately preceding the Plan Year.

(b) For the purpose of determining Total Compensation under the Plan, the Administrator, in its sole discretion, may determine the applicable value of an Eligible Employee’s annual long-term incentive award in appropriate circumstances, such as where the Eligible Employee’s actual annual long-term incentive award (if any) reflects a new hire’s short period of service, or other similar circumstances.

ARTICLE 3- INITIAL AND SUBSEQUENT ELECTIONS

3.1. Elections.

(a) Initial Elections. Subject to any applicable limitations or restrictions on Initial Elections, each Outside Director, Director Emeritus and Eligible Employee shall have the right to defer Compensation by filing an Initial Election with respect to Compensation that he would otherwise be entitled to receive for a calendar year or other Performance Period at the time and in the manner described in this Article 3. Notwithstanding the foregoing, an individual who is expected to become a New Key Employee on a specific date shall be treated as an “Eligible Employee” for purposes of this Section 3.1(a) and may file an Initial Election before the date on which such individual becomes a New Key Employee. The Compensation of such Outside Director, Director Emeritus or Eligible Employee for a calendar year or other Performance Period shall be reduced in an amount equal to the portion of the Compensation deferred by such Outside Director, Director Emeritus or Eligible Employee for such period of time

pursuant to such Outside Director's, Director Emeritus's or Eligible Employee's Initial Election. Such reduction shall be effected on a pro rata basis from each periodic installment payment of such Outside Director's, Director Emeritus's or Eligible Employee's Compensation for such period of time (in accordance with the general pay practices of the Participating Company), and credited, as a bookkeeping entry, to such Outside Director's, Director Emeritus's or Eligible Employee's Account in accordance with Section 5.1. Amounts credited to the Accounts of Outside Directors in the form of Company Stock shall be credited to the Company Stock Fund and credited with income, gains and losses in accordance with Section 5.2(c).

(b) Subsequent Elections. Each Participant or Beneficiary shall have the right to elect to defer the time of payment or to change the manner of payment of amounts previously deferred in accordance with the terms of a previously made Initial Election pursuant to the terms of the Plan by filing a Subsequent Election at the time, to the extent, and in the manner described in this Article 3.

3.2. Filing of Initial Election: General. An Initial Election shall be made on the form provided by the Administrator for this purpose. Except as provided in Section 3.3:

(a) No such Initial Election shall be effective with respect to Compensation other than Signing Bonuses or Performance-Based Compensation unless it is filed with the Administrator on or before December 31 of the calendar year preceding the calendar year to which the Initial Election applies.

(b) No such Initial Election shall be effective with respect to Performance-Based Compensation unless it is filed with the Administrator at least six months before the end of the Performance Period during which such Performance-Based Compensation may be earned.

(c) No such Initial Election shall be effective with respect to a Signing Bonus for an Eligible Employee other than a New Key Employee unless (i) such Signing Bonus is forfeitable if the Participant fails to continue in service to a specified date (other than as the result of the Participant's termination of employment because of death, Disability or Company-initiated termination without cause, as determined by the Administrator), and (ii) the Initial Election is filed with the Administrator on or before the 30th day following the date of grant of such Signing Bonus and at least one year before such specified date.

3.3. Filing of Initial Election by New Key Employees and New Outside Directors.

(a) New Key Employees. Notwithstanding Section 3.1 and Section 3.2, a New Key Employee may file an Initial Election:

(i) To defer Compensation payable for services to be performed after the date of such Initial Election. An Initial Election to defer Compensation payable for services to be performed after the date of such Initial Election must be filed with the Administrator within 30 days of the date such New Key Employee first becomes eligible to participate in the Plan.

(ii) To defer Compensation payable as a Signing Bonus. An Initial Election to defer Compensation payable as a Signing Bonus must be filed with the Administrator before such New Key Employee commences service as an Eligible Employee.

An Initial Election by such New Key Employee for succeeding calendar years or applicable Performance Periods shall be made in accordance with Section 3.1 and Section 3.2.

(b) New Outside Directors. Notwithstanding Section 3.1 and Section 3.2, an Outside Director may elect to defer Compensation by filing an Initial Election with respect to his Compensation attributable to services provided as an Outside Director in the calendar year in which an Outside Director's election as a member of the Board becomes effective (provided that such Outside Director is not a member of the Board immediately preceding such effective date), beginning with Compensation earned following the filing of an Initial Election with the Administrator and before the close of such calendar year. Such Initial Election must be filed with the Administrator within 30 days of the effective date of such Outside Director's election. Any Initial Election by such Outside Director for succeeding calendar years shall be made in accordance with Section 3.1 and Section 3.2

3.4. Years to which Initial Election May Apply.

(a) Separate Initial Elections for Each Calendar Year or Applicable Performance Period. A separate Initial Election may be made for each calendar year or other applicable Performance Period as to which an Outside Director, Director Emeritus or Eligible Employee desires to defer such Outside Director's, Director Emeritus's or Eligible Employee's Compensation. The failure of an Outside Director, Director Emeritus or Eligible Employee to make an Initial Election for any calendar year or other applicable Performance Period shall not affect such Outside Director's or Eligible Employee's right to make an Initial Election for any other calendar year or other applicable Performance Period.

(b) Initial Election of Distribution Date. Each Outside Director, Director Emeritus or Eligible Employee shall, contemporaneously with an Initial Election, also elect the time of payment of the amount of the deferred Compensation to which such Initial Election relates; provided, however, that, except as otherwise specifically provided by the Plan, no distribution may commence earlier than January 2nd of the second calendar year beginning after the date the compensation subject to the Initial Election would be paid but for the Initial Election, nor later than January 2nd of the tenth calendar year beginning after the date the compensation subject to the Initial Election would be paid but for the Initial Election. Further, each Outside Director, Director Emeritus or Eligible Employee may select with each Initial Election the manner of distribution in accordance with Article 4.

3.5. Subsequent Elections. No Subsequent Election shall be effective until 12 months after the date on which such Subsequent Election is made.

(a) Active Participants. Each Active Participant, who has made an Initial Election, or who has made a Subsequent Election, may elect to defer the time of payment of any part or all of such Participant's Account for a minimum of five and a maximum of ten additional years from the previously-elected payment date, by filing a Subsequent Election with the Administrator at least 12 months before the lump-sum distribution or initial installment payment would otherwise be made. The number of Subsequent Elections under this Section 3.5(a) shall not be limited.

(b) Inactive Participants. The Committee may, in its sole and absolute discretion, permit an Inactive Participant to make a Subsequent Election defer the time of payment of any part or all of such Inactive Participant's Account for a minimum of five years and a maximum of ten additional years from the previously-elected payment date, by filing a Subsequent Election with the Administrator at least 12 months before the lump-sum distribution or initial installment payment would otherwise be made. The number of Subsequent Elections under this Section 3.5(b) shall be determined by the Committee in its sole and absolute discretion.

(c) Surviving Spouses - Subsequent Election. A Surviving Spouse who is a Deceased Participant's Beneficiary may elect to defer the time of payment of any part or all of such Deceased Participant's Account the payment of which would be made more than 12 months after the date of such election. Such election shall be made by filing a Subsequent Election with the Administrator in which the Surviving Spouse shall specify the change in the time of payment, which shall be no less than five (5) years nor more than ten (10) years from the previously-elected payment date, or such Surviving Spouse may elect to defer payment until such Surviving Spouse's death. A Surviving Spouse may make a total of two (2) Subsequent Elections under this Section 3.5(c), with respect to all or any part of the Deceased Participant's Account. Subsequent Elections pursuant to this Section 3.5(c) may specify different changes with respect to different parts of the Deceased Participant's Account.

(d) Beneficiary of a Deceased Participant Other Than a Surviving Spouse - Subsequent Election. A Beneficiary of a Deceased Participant other than a Surviving Spouse may elect to defer the time of payment, of any part or all of such Deceased Participant's Account the payment of which would be made more than 12 months after the date of such election. Such election shall be made by filing a Subsequent Election with the Administrator in which the Beneficiary shall specify the deferral of the time of payment, which shall be no less than five (5) years nor more than ten (10) years from the previously-elected payment date. A Beneficiary may make one (1) Subsequent Election under this Section 3.5(d), with respect to all or any part of the Deceased Participant's Account. Subsequent Elections pursuant to this Section 3.5(d) may specify different changes with respect to different parts of the Deceased Participant's Account.

(e) Retired Participants and Disabled Participants. The Committee may, in its sole and absolute discretion, permit a Retired Participant or a Disabled Participant to make a Subsequent Election to defer the time of payment of any part or all of such Retired or Disabled Participant's Account that would not otherwise become payable within twelve (12) months of such Subsequent Election for a minimum of five (5) years and a maximum of ten (10) additional years from the previously-elected payment date, by filing a Subsequent Election with the Administrator on or before the close of business on the date that is at least twelve (12) months before the date on which the lump-sum distribution or initial installment payment would otherwise be made. The number of Subsequent Elections under this Section 3.5(f) shall be determined by the Committee in its sole and absolute discretion.

(f) Most Recently Filed Initial Election or Subsequent Election Controlling. Except as otherwise specifically provided by the Plan, no distribution of the amounts deferred by a Participant shall be made before the payment date designated by the Participant or Beneficiary on the most recently filed Initial Election or Subsequent Election with respect to each deferred amount.

3.6. Discretion to Provide for Distribution in Full Upon or Following a Change of Control. To the extent permitted by Section 409A, in connection with a Change of Control, and for the 12-month period following a Change of Control, the Committee may exercise its discretion to terminate the Plan and, notwithstanding any other provision of the Plan or the terms of any Initial Election or Subsequent Election, distribute the Account balance of each Participant in full and thereby effect the revocation of any outstanding Initial Elections or Subsequent Elections..

3.7. Withholding and Payment of Death Taxes.

(a) Notwithstanding any other provisions of this Plan to the contrary, including but not limited to the provisions of Article 3 and Article 7, or any Initial or Subsequent Election filed by a Deceased Participant or a Deceased Participant's Beneficiary (for purposes of this Section, the

"Decedent"), and to the extent permitted by Section 409A, the Administrator shall apply the terms of Section 3.7(b) to the Decedent's Account unless the Decedent affirmatively has elected, in writing, filed with the Administrator, to waive the application of Section 3.7(b).

(b) Unless the Decedent affirmatively has elected, pursuant to Section 3.7(a), that the terms of this Section 3.7(b) not apply, but only to the extent permitted under Section 409A:

(i) The Administrator shall prohibit the Decedent's Beneficiary from taking any action under any of the provisions of the Plan with regard to the Decedent's Account other than the Beneficiary's making of a Subsequent Election pursuant to Section 3.5;

(ii) The Administrator shall defer payment of the Decedent's Account until the later of the Death Tax Clearance Date and the payment date designated in the Decedent's Initial Election or Subsequent Election;

(iii) The Administrator shall withdraw from the Decedent's Account such amount or amounts as the Decedent's Personal Representative shall certify to the Administrator as being necessary to pay the Death Taxes apportioned against the Decedent's Account; the Administrator shall remit the amounts so withdrawn to the Personal Representative, who shall apply the same to the payment of the Decedent's Death Taxes, or the Administrator may pay such amounts directly to any taxing authority as payment on account of Decedent's Death Taxes, as the Administrator elects;

(iv) If the Administrator makes a withdrawal from the Decedent's Account to pay the Decedent's Death Taxes and such withdrawal causes the recognition of income to the Beneficiary, the Administrator shall pay to the Beneficiary from the Decedent's Account, within thirty (30) days of the Beneficiary's request, the amount necessary to enable the Beneficiary to pay the Beneficiary's income tax liability resulting from such recognition of income; additionally, the Administrator shall pay to the Beneficiary from the Decedent's Account, within thirty (30) days of the Beneficiary's request, such additional amounts as are required to enable the Beneficiary to pay the Beneficiary's income tax liability attributable to the Beneficiary's recognition of income resulting from a distribution from the Decedent's Account pursuant to this Section 3.7(b)(iv);

(v) Amounts withdrawn from the Decedent's Account by the Administrator pursuant to Sections 3.7(b)(iii) and 3.7(b)(iv) shall be withdrawn from the portions of Decedent's Account having the earliest distribution dates as specified in Decedent's Initial Election or Subsequent Election; and

(vi) Within 30 days after the Death Tax Clearance Date or upon the payment date designated in the Decedent's Initial Election or Subsequent Election, if later, the Administrator shall pay the Decedent's Account to the Beneficiary.

3.8. Company Credits. In addition to the amounts credited to Participants' Accounts pursuant to Initial Elections with respect to Compensation, the Committee may provide for additional amounts to be credited to the Accounts of one or more designated Eligible Employees ("Company Credits") for any year. A Participant whose Account is designated to receive Company Credits may not elect to receive any portion of the Company Credits as additional Compensation in lieu of deferral as provided by this Section 3.8. The total amount of Company Credits designated with respect to an Eligible Employee's Account for any Plan Year shall be credited to such Eligible Employee's Account as of the time or times designated by the Administrator, as a bookkeeping entry to such Eligible Employee's Account in accordance with Section 5.1. From and after the date Company Credits are allocated as designated by the Administrator, Company Credits shall be credited to the Income Fund. Company Credits and income, gains and losses credited with respect to Company Credits shall be distributable to the Participant on the same basis as if the Participant had made an Initial Election to receive a lump sum distribution of such amount on January 2nd of the third calendar year beginning after the later of Plan Year with respect to which the Company Credits were authorized or the Plan Year in which such Company Credits are free of a substantial risk of forfeiture, unless the Participant timely designates a later time and form of payment that is a permissible time and form of payment for amounts subject to an Initial Election under Section 3.4(b) and Section 4.1. In addition, the Participant may make one or more Subsequent Elections with respect to such Company Credits (and income, gains and losses credited with respect to Company Credits) on the same basis as all other amounts credited to such Participant's Account.

3.9 Separation from Service.

(a) Required Suspension of Payment of Benefits. To the extent compliance with the requirements of Treas. Reg. § 1.409A-3(i)(2) (or any successor provision) is necessary to avoid the application of an additional tax under Section 409A to payments due to a Participant upon or following his separation from service, then notwithstanding any other provision of this Plan, any such payments that are otherwise due within six months following the Participant's separation from service will be deferred and paid to the Participant in a lump sum immediately following that six-month period.

(b) Termination of Employment. For purposes of the Plan, a transfer of an employee between two employers, each of which is the Company or an Affiliate, shall not be deemed a termination of employment. A Participant who is a Non-Employee Director shall be treated as having terminated employment on the Participant's termination of service as a Non-Employee Director, provided that if such a Participant is designated as a Director Emeritus upon termination of service as a Non-Employee Director, such Participant shall not be treated as having terminated employment until the Participant's termination of service as a Director Emeritus.

ARTICLE 4- MANNER OF DISTRIBUTION

4.1. Manner of Distribution.

(a) Amounts credited to an Account shall be distributed, pursuant to an Initial Election or Subsequent Election in either (i) a lump sum payment or (ii) substantially equal monthly or annual installments over a five (5), ten (10) or fifteen (15) year period. Installment distributions payable in the form of shares of Company Stock shall be rounded to the nearest whole share.

(b) To the extent permitted by Section 409A, notwithstanding any Initial Election, Subsequent Election or any other provision of the Plan to the contrary:

(i) distributions pursuant to Initial Elections or Subsequent Elections shall be made in one lump sum payment unless the portion of a Participant's Account subject to distribution, as of both the date of the Initial Election or Subsequent Election and the benefit commencement date, has a value of more than $10,000;

(ii) following a Participant's termination of employment for any reason, if the amount credited to the Participant's Account has a value of $10,000 or less, the Administrator may, in its sole discretion, direct that such amount be distributed to the Participant (or Beneficiary, as applicable) in one lump sum payment, provided that the payment is made on or before the later of (i) December 31 of the calendar year in which the Participant terminates employment or (ii) the date two and one-half months after the Participant terminates employment.

4.2. Determination of Account Balances for Purposes of Distribution. The amount of any distribution made pursuant to Section 4.1 shall be based on the balances in the Participant's Account on the date the recordkeeper appointed by the Administrator transmits the distribution request for a Participant to the Administrator for payment and processing, provided that payment with respect to such distribution shall be made as soon as reasonably practicable following the date the distribution request is transmitted to the Administrator. For this purpose, the balance in a Participant's Account shall be calculated by crediting income, gains and losses under the Company Stock Fund and Income Fund, as applicable, through the date immediately preceding the date on which the distribution request is transmitted to the recordkeeper.

4.3. Plan-to-Plan Transfers; Change in Time and Form of Election Pursuant to Special Section 409A Transition Rules. The Administrator may delegate its authority to arrange for plan-to-plan transfers or to permit benefit elections as described in this Section 4.3 to an officer of the Company or committee of two or more officers of the Company.

(a) The Administrator may, with a Participant's consent, make such arrangements as it may deem appropriate to transfer the Company's obligation to pay benefits with respect to such Participant which have not become payable under this Plan, to another employer, whether through a deferred compensation plan, program or arrangement sponsored by such other employer or otherwise, or to another deferred compensation plan, program or arrangement sponsored by the Company or an Affiliate. Following the completion of such transfer, with respect to the benefit transferred, the Participant shall have no further right to payment under this Plan.

(b) The Administrator may, with a Participant's consent, make such arrangements as it may deem appropriate to assume another employer's obligation to pay benefits with respect to such Participant which have not become payable under the deferred compensation plan, program or arrangement under which such future right to payment arose, to the Plan, or to assume a future payment obligation of the Company or an Affiliate under another plan, program or arrangement sponsored by the Company or an Affiliate. Upon the completion of the Plan's assumption of such payment obligation, the Administrator shall establish an Account for such Participant, and the Account shall be subject to the rules of this Plan, as in effect from time to time.

ARTICLE 5- BOOK ACCOUNTS

5.1. Deferred Compensation Account. A Deferred Compensation Account shall be established for each Outside Director, Director Emeritus and Eligible Employee when such Outside Director, Director Emeritus or Eligible Employee becomes a Participant. Compensation deferred pursuant

to the Plan shall be credited to the Account on the date such Compensation would otherwise have been payable to the Participant.

5.2. Crediting of Income, Gains and Losses on Accounts.

(a) In General. Except as otherwise provided in this Section 5.2, the Administrator shall credit income, gains and losses with respect to each Participant's Account as if it were invested in the Income Fund.

(b) Investment Fund Elections. Except for amounts credited to the Accounts of Participants who are Outside Directors who have elected to defer the receipt of Compensation payable in the form of Company Stock, all amounts credited to Participants' Accounts shall be credited with income, gains and losses as if it were invested in the Income Fund.

(c) Outside Director Stock Fund Credits. Amounts credited to the Accounts of Outside Directors in the form of Company Stock shall be credited with income, gains and losses as if they were invested in the Company Stock Fund. No portion of such Participant's Account may be deemed transferred to the Income Fund. Distributions of amounts credited to the Company Stock Fund with respect to Outside Directors' Accounts shall be distributable in the form of Company Stock, rounded to the nearest whole share.

(d) Timing of Credits. Compensation deferred pursuant to the Plan shall be deemed invested in the Income Fund on the date such Compensation would otherwise have been payable to the Participant, provided that if (i) Compensation would otherwise have been payable to a Participant on a Company payroll date that falls within five days of the end of a calendar month, and (ii) based on the Administrator's regular administrative practices, it is not administratively practicable for the Administrator to transmit the deferred amount of such Compensation to the Plan's recordkeeper on or before the last day of the month, such deferred amount shall not be deemed invested in the Income Fund until the first day of the calendar month next following such Company payroll date. Accumulated Account balances subject to an investment fund election under Section 5.2(b) shall be deemed invested in the applicable investment fund as of the effective date of such election. The value of amounts deemed invested in the Company Stock Fund shall be based on hypothetical purchases and sales of Company Stock at Fair Market Value as of the effective date of an investment election.

5.3. Status of Deferred Amounts. Regardless of whether or not the Company is a Participant's employer, all Compensation deferred under this Plan shall continue for all purposes to be a part of the general funds of the Company.

5.4. Participants' Status as General Creditors. Regardless of whether or not the Company is a Participant's employer, an Account shall at all times represent a general obligation of the Company. The Participant shall be a general creditor of the Company with respect to this obligation, and shall not have a secured or preferred position with respect to the Participant's Accounts. Nothing contained herein shall be deemed to create an escrow, trust, custodial account or fiduciary relationship of any kind. Nothing contained herein shall be construed to eliminate any priority or preferred position of a Participant in a bankruptcy matter with respect to claims for wages.

ARTICLE 6 - NO ALIENATION OF BENEFITS; PAYEE DESIGNATION

6.1. Non-Alienation. Except as otherwise required by applicable law, or as provided by Section 6.2, the right of any Participant or Beneficiary to any benefit or interest under any of the provisions of this Plan shall not be subject to encumbrance, attachment, execution, garnishment, assignment, pledge, alienation, sale, transfer, or anticipation, either by the voluntary or involuntary act of any Participant or any Participant's Beneficiary or by operation of law, nor shall such payment, right, or interest be subject to any other legal or equitable process.

6.2. Domestic Relations Orders. Notwithstanding any other provision of the Plan or the terms of any Initial Election or Subsequent Election, the Plan shall honor the terms of a Domestic Relations Order if the Administrator determines that it satisfies the requirements of the Plan's policies relating to Domestic Relations Orders as in effect from time to time, provided that a Domestic Relations Order shall not be honored unless (i) it provides for payment of all or a portion of a Participant's Account under the Plan to the Participant's spouse or former spouse and (ii) it provides for such payment in the form of a single cash lump sum that is payable as soon as administratively practicable following the determination that the Domestic Relations Order meets the conditions for approval.

6.3. Payee Designation. Subject to the terms and conditions of the Plan, a Participant or Beneficiary may direct that any amount payable pursuant to an Initial Election or a Subsequent Election on any date designated for payment be paid to any person or persons or legal entity or entities, including, but not limited to, an organization exempt from federal income tax under section 501(c)(3) of the Code, instead of to the Participant or Beneficiary. Such a payee designation shall be provided to the Administrator by the Participant or Beneficiary in writing on a form provided by the Administrator, and shall not be effective unless it is provided immediately preceding the time of payment. The Company's payment pursuant to such a payee designation shall relieve the Company and its Affiliates of all liability for such payment.

ARTICLE 7- DEATH OF PARTICIPANT

7.1. Death of Participant. A Deceased Participant's Account shall be distributed in accordance with the last Initial Election or Subsequent Election made by the Deceased Participant before the Deceased Participant's death, unless the Deceased Participant's Surviving Spouse or other Beneficiary timely elects to defer the time of payment pursuant to Section 3.5.

7.2. Designation of Beneficiaries. Each Participant (and Beneficiary) shall have the right to designate one or more Beneficiaries to receive distributions in the event of the Participant's (or Beneficiary's) death by filing with the Administrator a Beneficiary designation on a form that may be prescribed by the Administrator for such purpose from time to time. The designation of a Beneficiary or Beneficiaries may be changed by a Participant (or Beneficiary) at any time prior to such Participant's (or Beneficiary's) death by the delivery to the Administrator of a new Beneficiary designation form. The Administrator may require that only the Beneficiary or Beneficiaries identified on the Beneficiary designation form prescribed by the Administrator be recognized as a Participant's (or Beneficiary's) Beneficiary or Beneficiaries under the Plan, and that absent the completion of the currently prescribed Beneficiary designation form, the Participants (or Beneficiary's) Beneficiary designation shall be the Participant's (or Beneficiary's) estate.

ARTICLE 8- HARDSHIP AND OTHER ACCELERATION EVENTS

8.1. Hardship. Notwithstanding the terms of an Initial Election or Subsequent Election, if, at the Participant's request, the Committee determines that the Participant has incurred a Hardship, the Board may, in its discretion, authorize the immediate distribution of all or any portion of the Participant's Account.

8.2. Other Acceleration Events. To the extent permitted by Section 409A, notwithstanding the terms of an Initial Election or Subsequent Election, distribution of all or part of a Participant's Account may be made:

(a) To fulfill a domestic relations order (as defined in section 414(p)(1)(B) of the Code) to the extent permitted by Treasury Regulations section 1.409A-3(j)(4)(ii) or any successor provision of law).

(b) To the extent necessary to comply with laws relating to avoidance of conflicts of interest, as provided in Treasury Regulation section 1.409A-3(j)(4)(iii) (or any successor provision of law).

(c) To pay employment taxes to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(vi) (or any successor provision of law).

(d) In connection with the recognition of income as the result of a failure to comply with Section 409A, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(vii) (or any successor provision of law).

(e) To pay state, local or foreign taxes to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xi) (or any successor provision of law).

(f) In satisfaction of a debt of a Participant to a Participating Company where such debt is incurred in the ordinary course of the service relationship between the Participant and the Participating Company, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xiii) (or any successor provision of law).

(g) In connection with a bona fide dispute as to a Participant's right to payment, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xiv) (or any successor provision of law).

ARTICLE 9 - INTERPRETATION

9.1. Authority of Committee. The Committee shall have full and exclusive authority to construe, interpret and administer this Plan and the Committee's construction and interpretation thereof shall be binding and conclusive on all persons for all purposes.

9.2. Claims Procedure. If an individual (hereinafter referred to as the "Applicant," which reference shall include the legal representative, if any, of the individual) does not receive timely payment of benefits to which the Applicant believes he is entitled under the Plan, the Applicant may make a claim for benefits in the manner hereinafter provided.

An Applicant may file a claim for benefits with the Administrator on a form supplied by the Administrator. If the Administrator wholly or partially denies a claim, the Administrator shall provide the Applicant with a written notice stating:

(a) The specific reason or reasons for the denial;

(b) Specific reference to pertinent Plan provisions on which the denial is based;

(c) A description of any additional material or information necessary for the Applicant to perfect the claim and an explanation of why such material or information is necessary; and

(d) Appropriate information as to the steps to be taken in order to submit a claim for review.

Written notice of a denial of a claim shall be provided within 90 days of the receipt of the claim, provided that if special circumstances require an extension of time for processing the claim, the Administrator may notify the Applicant in writing that an additional period of up to 90 days will be required to process the claim.

If the Applicant's claim is denied, the Applicant shall have 60 days from the date of receipt of written notice of the denial of the claim to request a review of the denial of the claim by the Administrator. Request for review of the denial of a claim must be submitted in writing. The Applicant shall have the right to review pertinent documents and submit issues and comments to the Administrator in writing. The Administrator shall provide a written decision within 60 days of its receipt of the Applicant's request for review, provided that if special circumstances require an extension of time for processing the review of the Applicant's claim, the Administrator may notify the Applicant in writing that an additional period of up to 60 days shall be required to process the Applicant's request for review.

It is intended that the claims procedures of this Plan be administered in accordance with the claims procedure regulations of the Department of Labor set forth in 29 CFR § 2560.503-1.

Claims for benefits under the Plan must be filed with the Administrator at the following address:

Comcast Corporation
One Comcast Center
1701 John F. Kennedy Boulevard
Philadelphia, PA 19103
Attention: General Counsel

ARTICLE 10- AMENDMENT OR TERMINATION

10.1. Amendment or Termination. Except as otherwise provided by Section 10.2, the Company, by action of the Board or by action of the Committee, shall have the right at any time, or from time to time, to amend or modify this Plan. The Company, by action of the Board, shall have the right to terminate this Plan at any time.

10.2. Amendment of Rate of Credited Earnings. No amendment shall change the Applicable Interest Rate with respect to the portion of a Participant's Account that is attributable to an Initial Election or Subsequent Election made with respect to Compensation and filed with the Administrator before the date of adoption of such amendment by the Board. For purposes of this Section 10.2, a Subsequent Election to defer the payment of part or all of an Account for an additional period after a previously-elected payment date (as described in Section 3.5) shall be treated as a separate Subsequent Election from any previous Initial Election or Subsequent Election with respect to such Account.

ARTICLE 11 - WITHHOLDING OF TAXES

Whenever the Participating Company is required to credit deferred Compensation to the Account of a Participant, the Participating Company shall have the right to require the Participant to remit to the Participating Company an amount sufficient to satisfy any federal, state and local withholding tax requirements prior to the date on which the deferred Compensation shall be deemed credited to the Account of the Participant, or take any action whatever that it deems necessary to protect its interests with respect to tax liabilities. The Participating Company's obligation to credit deferred Compensation to an Account shall be conditioned on the Participant's compliance, to the Participating Company's satisfaction, with any withholding requirement. To the maximum extent possible, the Participating Company shall satisfy all applicable withholding tax requirements by withholding tax from other Compensation payable by the Participating Company to the Participant, or by the Participant's delivery of cash to the Participating Company in an amount equal to the applicable withholding tax.

ARTICLE 12- MISCELLANEOUS PROVISIONS

12.1. No Right to Continued Employment. Nothing contained herein shall be construed as conferring upon any Participant the right to remain in service as an Outside Director or Director Emeritus or in the employment of a Participating Company as an executive or in any other capacity.

12.2. Expenses of Plan. All expenses of the Plan shall be paid by the Participating Companies.

12.3. Gender and Number. Whenever any words are used herein in any specific gender, they shall be construed as though they were also used in any other applicable gender. The singular form, whenever used herein, shall mean or include the plural form, and *vice versa*, as the context may require.

12.4. Law Governing Construction. The construction and administration of the Plan and all questions pertaining thereto, shall be governed by the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), and other applicable federal law and, to the extent not governed by federal law, by the laws of the Commonwealth of Pennsylvania.

12.5. Headings Not a Part Hereof. Any headings preceding the text of the several Articles, Sections, subsections, or paragraphs hereof are inserted solely for convenience of reference and shall not constitute a part of the Plan, nor shall they affect its meaning, construction, or effect.

12.6. Severability of Provisions. If any provision of this Plan is determined to be void by any court of competent jurisdiction, the Plan shall continue to operate and, for the purposes of the jurisdiction of that court only, shall be deemed not to include the provision determined to be void.

ARTICLE 13- EFFECTIVE DATE

The original effective date of the Plan is January 1, 2005.

IN WITNESS WHEREOF, COMCAST CORPORATION has caused this Plan to be executed by its officers thereunto duly authorized, and its corporate seal to be affixed hereto, on the 17th day of October, 2018.

COMCAST CORPORATION

BY: /s/ David L. Cohen

ATTEST: /s/ Arthur R. Block

COMCAST CORPORATION

2002 RESTRICTED STOCK PLAN

(As Amended and Restated, Effective December 18, 2018)

1. BACKGROUND AND PURPOSE

(a) Background. COMCAST CORPORATION, a Pennsylvania corporation, hereby amends and restates the Comcast Corporation 2002 Restricted Stock Plan (the "Plan") effective December 18, 2018.

(b) Purpose. The purpose of the Plan is to promote the ability of Comcast Corporation to recruit and retain employees and enhance the growth and profitability of Comcast Corporation by providing the incentive of long-term awards for continued employment and the attainment of performance objectives.

(c) Purpose of the Amendment; Credits Affected. The Plan was previously amended and restated, effective January 1, 2005 in order (i) to preserve the favorable tax treatment available to amounts deferred pursuant to the Plan before January 1, 2005 and the earnings credited in respect of such amounts (each a "Grandfathered Amount") in light of the enactment of section 409A of the Internal Revenue Code of 1986, as amended (the "Code") as part of the American Jobs Creation Act of 2004, and the issuance of various Notices, Announcements, Proposed Regulations and Final Regulations thereunder (collectively, "Section 409A"), and (ii) with respect to all other amounts eligible to be deferred under the Plan, to comply with the requirements of Section 409A. Grandfathered Amounts will continue to be subject to the terms and conditions of the Plan as in effect prior to January 1, 2005. All amounts eligible to be deferred under the Plan other than Grandfathered Amounts will be subject to the terms of this amendment and restatement of the Plan and Section 409A.

(d) Reservation of Right to Amend to Comply with Section 409A. In addition to the powers reserved to the Board and the Committee under Paragraph 14 of the Plan, the Board and the Committee reserve the right to amend the Plan, either retroactively or prospectively, in whatever respect is required to achieve and maintain compliance with the requirements of the Section 409A.

(e) Deferral Provisions of Plan Unfunded and Limited to Select Group of Management or Highly Compensated Employees**.** Deferral Eligible Grantees and Non-Employee Directors may elect to defer the receipt of Restricted Stock and Restricted Stock Units as provided in Paragraph 8. The deferral provisions of Paragraph 8 and the other provisions of the Plan relating to the deferral of Restricted Stock and Restricted Stock Units are unfunded and maintained primarily for the purpose of providing a select group of management or highly compensated employees the opportunity to defer the receipt of compensation otherwise payable to such eligible employees in accordance with the terms of the Plan.

(f) References to Written Forms, Elections and Notices. Any action under the Plan that requires a written form, election, notice or other action shall be treated as completed if taken via electronic or other means, to the extent authorized by the Committee.

2. **DEFINITIONS**

(a) [RESERVED]

(b) "Account" means unfunded bookkeeping accounts established pursuant to Paragraph 8(h) and maintained by the Committee in the names of the respective Grantees (i) to which Deferred Stock Units, dividend equivalents and earnings on dividend equivalents shall be credited with respect to the portion of the Account allocated to the Company Stock Fund and (ii) to which an amount equal to the Fair Market Value of Deferred Stock Units with respect to which a

Diversification Election has been made and interest thereon are deemed credited, reduced by distributions in accordance with the Plan.

(c) "Active Grantee" means each Grantee who is actively employed by a Participating Company.

(d) "Affiliate" means, with respect to any Person, any other person that, directly or indirectly, is in control of, is controlled by, or is under common control with, such Person. For purposes of this definition, the term "control," including its correlative terms "controlled by" and "under common control with," mean, with respect to any Person, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

(e) "Annual Rate of Pay" means, as of any date, an employee's annualized base pay rate. An employee's Annual Rate of Pay shall not include sales commissions or other similar payments or awards.

(f) "Applicable Interest Rate" means:

(i) Except as otherwise provided in Paragraph 2(f)(ii):

(A) The Applicable Interest Rate with respect to amounts credited to the Income Fund that are attributable to (1) dividends and other distributions credited with respect to Deferred Stock Units that are deferred pursuant to Initial Deferral Elections made before January 1, 2010 and (2) Diversification Elections and Special Diversification Elections made before January 1, 2010 shall be the interest rate that, when compounded annually pursuant to rules established by the Committee from time to time, is mathematically equivalent to 8% (0.08) per annum, or such other interest rate established by the Committee from time to time.

(B) The Applicable Interest Rate with respect to amounts credited to the Income Fund that are attributable to (1) dividends and other distributions credited with respect to Deferred Stock Units that are deferred pursuant to Initial Deferral Elections made on or after January 1, 2010 and before January 1, 2014 and (2) Diversification Elections and Special Diversification Elections made on or after January 1, 2010 and before January 1, 2014, shall be the interest rate that, when compounded annually pursuant to rules established by the Committee from time to time, is mathematically equivalent to 12% per annum, or such other interest rate established by the Committee from time to time.

(C) Effective with respect to amounts credited to the Income Fund that are attributable to (1) dividends and other distributions credited with respect to Deferred Stock Units that are deferred pursuant to Initial Deferral Elections made on or after January 1, 2014, (2) dividends and other distributions credited with respect to Deferred Stock Units that are deferred pursuant to Regular Deferral Elections, and (3) Diversification Elections and Special Diversification Elections made on or after January 1, 2014, the "Applicable Interest Rate" shall be the Applicable Interest Rate that applies to "Protected Benefits" under the Comcast Corporation 2005 Deferred Compensation Plan (the "2005 Deferred Compensation Plan") if, as of the September 30th immediately preceding the Plan Year to which the Initial Deferral Election, Regular Deferral Election or Diversification

Election applies, the sum of (x) the Grantee's Account under the 2005 Deferred Compensation Plan, plus (y) the Grantee's Account under the Comcast Corporation 2002 Deferred Compensation Plan (the "2002 Deferred Compensation Plan"), plus (z) the portion of the Grantee's Account under this Plan credited to the Income Fund, is less than the High Water Mark. If the conditions described in the preceding sentence do not apply, the "Applicable Interest Rate" shall be the Applicable Interest Rate that applies under the 2005 Deferred Compensation Plan to amounts credited pursuant to Initial Deferral Elections with respect to compensation earned after December 31, 2013, that are not Protected Benefits.

(ii) Effective for the period beginning as soon as administratively practicable following a Grantee's employment termination date to the date the Grantee's Account is distributed in full, the Committee, in its sole and absolute discretion, may designate the term "Applicable Interest Rate" for such Grantee's Account to mean the lesser of: (A) the rate in effect under Paragraph 2(f)(i) or (B) the interest rate that, when compounded annually pursuant to rules established by the Committee from time to time, is mathematically equivalent to the Prime Rate plus one percent, compounded annually as of the last day of the calendar year. A Grantee's re-employment by a Participating Company following an employment termination date shall not affect the Applicable Interest Rate that applies to the part of the Grantee's Account (including interest credited with respect to such part of the Grantee's Account) that was credited before such employment termination date. Notwithstanding the foregoing, the Committee may delegate its authority to determine the Applicable Interest Rate under this Paragraph 2(f)(ii) to an officer of the Company or committee of two or more officers of the Company.

(g) "AT&T Broadband Transaction" means the acquisition of AT&T Broadband Corp. (now known as Comcast Cable Communications, LLC) by the Company.

(h) "Award" means an award of Restricted Stock or Restricted Stock Units granted under the Plan.

(i) "Board" means the Board of Directors of the Company.

(j) "Change in Control" means:

(i) Except as provided in Paragraph 2(j)(ii), "Change in Control" means the occurrence of any one or more of the following events:

(A) following February 22, 2016, any person or "group" (as defined in Section 13(d) of the Exchange Act) (each, a "Person"), other than an employee benefit plan or trust maintained by the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company's outstanding securities entitled to vote generally in the election of directors, unless a majority of the directors of the Company in office immediately preceding the date on which such Person acquires such beneficial ownership, by resolution negates the effectiveness of this provision in a particular circumstance);

(B) at any time during a period of 12 consecutive months, individuals who at the beginning of such period constituted the Board and any

new member of the Board whose election or nomination for election was approved by a vote of at least a majority of the directors then still in office who either were directors at the beginning of such period or whose election or nomination for election was so approved, cease for any reason to constitute a majority of members of the Board;

(C) the consummation of (x) a merger, consolidation, reorganization or similar corporate transaction involving the Company or any of its subsidiaries with any other corporation or entity, which would result in the combined voting power of the Company's securities entitled to vote generally in the election of directors outstanding immediately prior to such merger, consolidation, reorganization or other similar transaction representing (either by remaining outstanding or being converted into voting securities of the surviving entity or, if applicable, the ultimate parent thereof) less than a majority of the combined voting power of the Company or such surviving entity or parent outstanding immediately after such merger, consolidation, reorganization or other similar transaction, or (y) any sale, lease, exchange or other transfer to any Person of all or substantially all of the assets of the Company, in one transaction or a series of related transactions; or

(D) the approval by the shareholders of the Company of a liquidation or dissolution of the Company.

(ii) For purposes of Paragraph 8, and with respect to the distribution of amounts subject to an Award that constitute "deferred compensation" (within the meaning of Section 409A), the term "Change in Control" shall mean any transaction or series of transactions that constitutes a change in the ownership or effective control or a change in the ownership of a substantial portion of the assets of the Company, within the meaning of Section 409A.

(k) "Code" means the Internal Revenue Code of 1986, as amended.

(l) "Comcast Plan" means any restricted stock, restricted stock unit, stock bonus, stock option or other compensation plan, program or arrangement established or maintained by the Company or an Affiliate, including but not limited to this Plan, the Comcast Corporation 2003 Stock Option Plan, the Comcast Corporation 2002 Stock Option Plan, the Comcast Corporation 1996 Stock Option Plan, Comcast Corporation 1987 Stock Option Plan and the Comcast Corporation 2002 Deferred Stock Option Plan.

(m) "Committee" means the Compensation Committee of the Board, provided that all references to the Committee shall be treated as references to the Committee's delegate with respect to any Award granted within the scope of the delegate's authority pursuant to Paragraph 5(f).

(n) "Common Stock" means Class A Common Stock, par value $0.01, of the Company.

(o) "Company" means Comcast Corporation, a Pennsylvania corporation, including any successor thereto by merger, consolidation, acquisition of all or substantially all the assets thereof, or otherwise.

(p) "Company Stock Fund" means a hypothetical investment fund pursuant to which Deferred Stock Units are credited with respect to a portion of an Award subject to an Election, and thereafter until (i) the date of distribution or (ii) the effective date of a Diversification Election, to the extent a Diversification Election applies to such Deferred Stock Units, as applicable. The portion of a Grantee's Account deemed invested in the Company Stock Fund shall be treated as if such portion of the Account were invested in hypothetical shares of Common Stock otherwise

deliverable as Shares upon the Vesting Date associated with Restricted Stock or Restricted Stock Units, and all dividends and other distributions paid with respect to Common Stock were credited to the Income Fund, held uninvested in cash and credited with interest at the Applicable Interest Rate as of the next succeeding December 31 (to the extent the Account continues to be deemed credited in the form of Deferred Stock Units through such December 31), provided that dividends and other distributions paid with respect to Common Stock shall be credited with interest at the Applicable Interest Rate commencing as of the date on which dividends or other distributions are paid.

(q) "Date of Grant" means the date on which an Award is granted.

(r) "Deceased Grantee" means:

(i) A Grantee whose employment by a Participating Company is terminated by death; or

(ii) A Grantee who dies following termination of employment by a Participating Company.

(s) "Deferral Eligible Employee" means:

(i) Effective for the period extending from January 1, 2014 through December 31, 2018:

(A) An Eligible Employee whose Annual Rate of Pay is $250,000 or more as of both: (x) the date on which an Initial Deferral Election or Regular Deferral Election is filed with the Committee; and (y) the first day of the calendar year in which such Initial Deferral Election or Regular Deferral Election is filed.

(B) Each New Key Employee.

(C) Each other employee of a Participating Company who is designated by the Committee, in its sole and absolute discretion, as a Deferral Eligible Employee.

(ii) Effective on and after January 1, 2019:

(A) An Eligible Employee whose Annual Rate of Pay is $350,000 or more as of both: (x) the date on which an Initial Deferral Election or Regular Deferral Election is filed with the Committee; and (y) the first day of the calendar year in which such Initial Deferral Election or Regular Deferral Election is filed.

(B) Each New Key Employee.

(C) Each other employee of a Participating Company who is designated by the Committee, in its sole and absolute discretion, as a Deferral Eligible Employee.

Notwithstanding anything in this Paragraph 2(s) to the contrary, except as otherwise provided by the Committee or its delegate, no Grantee who is an employee of NBCUniversal, LLC, a Delaware limited liability company, and its subsidiaries (collectively, "NBCUniversal") shall be a Deferral Eligible Employee with respect to any Award granted to such Grantee on or after January 29, 2011.

(t) "Deferred Stock Units" means the number of hypothetical Shares subject to an Election.

(u) "Disability" means:

(i) A Grantee's substantial inability to perform Grantee's employment duties due to partial or total disability or incapacity resulting from a mental or physical illness, injury or other health-related cause for a period of 12 consecutive months or for a cumulative period of 52 weeks in any two calendar year period; or

(ii) If different from the definition in Paragraph 2(u)(i) above, "Disability" as it may be defined in such Grantee's employment agreement between the Grantee and the Company or an Affiliate, if any.

(v) "Disabled Grantee" means:

(i) A Grantee whose employment by a Participating Company is terminated by reason of Disability;

(ii) The duly-appointed legal guardian of an individual described in Paragraph 2(v)(i) acting on behalf of such individual.

(w) "Diversification Election" means a Grantee's election to have a portion of the Grantee's Account credited in the form of Deferred Stock Units and attributable to any grant of Restricted Stock or Restricted Stock Units deemed liquidated and credited thereafter under the Income Fund, as provided in Paragraph 8(k).

(x) "Election" means, as applicable, an Initial Deferral Election, Regular Deferral Election, or a Subsequent Deferral Election.

(y) "Eligible Employee" means an employee of a Participating Company, as determined by the Committee.

(z) "Fair Market Value" means:

(i) If Shares are listed on a stock exchange, Fair Market Value shall be determined based on the last reported sale price of a Share on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the next trading date.

(ii) If Shares are not so listed, but trades of Shares are reported on the Nasdaq National Market, Fair Market Value shall be determined based on the last quoted sale price of a Share on the Nasdaq National Market on the date of determination, or if such date is not a trading day, the next trading date.

(iii) If Shares are not so listed nor trades of Shares so reported, Fair Market Value shall be determined by the Committee in good faith.

(aa) "Family Member" has the meaning given to such term in General Instructions A.1(a)(5) to Form S-8 under the Securities Act of 1933, as amended, and any successor thereto.

(ab) "Grandfathered Amount" means amounts described in Paragraph 1(c) that were deferred under the Plan and that were earned and vested before January 1, 2005.

(ac) "Grantee" means an Eligible Employee or Non-Employee Director who is granted an Award.

(ad) "Hardship" means an "unforeseeable emergency," as defined in Section 409A. The Committee shall determine whether the circumstances of the Grantee constitute an unforeseeable emergency and thus a Hardship within the meaning of this Paragraph 2(dd). Following a uniform procedure, the Committee's determination shall consider any facts or conditions deemed necessary or advisable by the Committee, and the Grantee shall be required to submit any evidence of the Grantee's circumstances that the Committee requires. The determination as to whether the Grantee's circumstances are a case of Hardship shall be based on the facts of each case; provided however, that all determinations as to Hardship shall be uniformly and consistently made according to the provisions of this Paragraph 2(dd) for all Grantees in similar circumstances.

(ae) "High Water Mark" means:

(i) With respect to amounts credited to the Income Fund on account of Diversification Elections made in 2014, the highest of the sum of the amounts described in (A), (B) and (C) below as of the last day of any calendar quarter beginning after December 31, 2008 and before October 1, 2013:

(A) the Grantee's Account under the 2005 Deferred Compensation Plan; plus

(B) the Grantee's Account under the 2002 Deferred Compensation Plan; plus

(C) the portion of the Grantee's Account under this Plan credited to the Income Fund.

(ii) With respect to amounts credited to the Income Fund on account of Diversification Elections and Special Diversification Elections made after 2014, the sum of (x) plus (y) where (x) equals the highest of the sum of the amounts described in Paragraphs 2(ee)(i)(A), (B) and (C) as of the last day of any calendar quarter beginning after December 31, 2008 and before January 1, 2014, and (y) equals the sum of:

(A) The amount credited to a Grantee's Account under Section 3.8 of the 2005 Deferred Compensation Plan after December 31, 2013 and on or before September 30, 2014 that is contractually committed pursuant to an employment agreement entered into on or before December 31, 2013; plus

(B) The deferred portion of a Grantee's cash bonus award earned for 2013 and payable, but for the Grantee's deferral election under the 2005 Deferred Compensation Plan after December 31, 2013 and on or before September 30, 2014; plus

(C) The amount credited to the Income Fund pursuant to a Diversification Election or Special Diversification Election made by a Grantee before January 1, 2014 with respect to Restricted Stock Units that vest after December 31, 2013 and on or before September 30, 2014.

(af) "Income Fund" means a hypothetical investment fund pursuant to which an amount equal to the Fair Market Value of Deferred Stock Units subject to a Diversification Election is credited as of the effective date of such Diversification Election and as to which interest is credited thereafter until the date of distribution at the Applicable Interest Rate. In addition, the Income Fund shall also be deemed to hold dividend equivalents and earnings on dividend equivalents credited to a Grantee's Account as described in Paragraph 2(b) and Paragraph 2(p). Notwithstanding any other provision of the Plan to the contrary, for purposes of determining the time and form of payment of amounts credited to the Income Fund, the rules of the 2005 Deferred Compensation Plan shall apply on the same basis as if such amounts were credited to a participant's account under such 2005 Deferred Compensation Plan.

(ag) "Initial Deferral Election" means a written election on a form provided by the Committee, pursuant to which a Grantee: (i) elects, within the time or times specified in Paragraph 8(a)(i), to defer the distribution date of Shares issuable with respect to Restricted Stock Units; and (ii) designates the distribution date of such Shares.

(ah) "New Key Employee" means:

(i) Effective for the period extending from January 1, 2014 through December 31, 2018, each employee of a Participating Company who:

(A) becomes an employee of a Participating Company and has an Annual Rate of Pay of $250,000 or more as of his employment commencement date; or

(B) has an Annual Rate of Pay that is increased to $250,000 or more and who, immediately preceding such increase, was not a Deferral Eligible Employee.

(ii) Effective on and after January 1, 2019, each employee of a Participating Company who:

(A) becomes an employee of a Participating Company and has an Annual Rate of Pay of $350,000 or more as of his employment commencement date; or

(B) has an Annual Rate of Pay that is increased to $350,000 or more and who, immediately preceding such increase, was not a Deferral Eligible Employee.

(ai) "Non-Employee Director" means an individual who is a member of the Board, and who is not an employee of the Company, including an individual who is a member of the Board and who previously was an employee of the Company.

(aj) "Normal Retirement" means a Grantee's termination of employment that is treated by the Participating Company as a retirement under its employment policies and practices as in effect from time to time.

(ak) "Other Available Shares" means, as of any date, the sum of:

(i) The total number of Shares owned by a Grantee or such Grantee's Family Member that were not acquired by such Grantee or such Grantee's Family Member pursuant to a Comcast Plan or otherwise in connection with the performance of services to the Company or an Affiliate; plus

(ii) The excess, if any of:

(A) The total number of Shares owned by a Grantee or such Grantee's Family Member other than the Shares described in Paragraph 2(kk)(i); over

(B) The sum of:

(1) The number of such Shares owned by such Grantee or such Grantee's Family Member for less than six months; plus

(2) The number of such Shares owned by such Grantee or such Grantee's Family Member that has, within the preceding six months, been the subject of a certification pursuant to Paragraph 9(c)(ii) or any similar certification under any other Comcast Plan; plus

(3) The number of such Shares owned by such Grantee or such Grantee's Family Member that has, within the preceding six months, been received in exchange for Shares surrendered as payment, in full or in part, or as to which ownership was attested to as payment, in full or in part, of the exercise price for an option to purchase any securities of the Company or an Affiliate of the Company, under any Comcast Plan, but only to the extent of the number of Shares surrendered or attested to; plus

(4) The number of such Shares owned by such Grantee or such Grantee's Family Member as to which evidence of ownership has, within the preceding six months, been provided to the Company in connection with the crediting of "Deferred Stock Units" to such Grantee's Account under the Comcast Corporation 2002 Deferred Stock Option Plan (as in effect from time to time).

For purposes of this Paragraph 2(kk), a Share that is subject to an Election pursuant to Paragraph 8 or a deferral election pursuant to another Comcast Plan shall not be treated as owned by a Grantee until all conditions to the delivery of such Share have lapsed. For purposes of determining the number of Other Available Shares, the term "Shares" shall also include the securities held by a Grantee or such Grantee's Family Member immediately before the consummation of the AT&T Broadband Transaction that have converted into Shares.

(al) "Participating Company" means the Company and each of the Subsidiary Companies.

(am) "Performance-Based Compensation" means "Performance-Based Compensation" within the meaning of Section 409A.

(an) "Performance Period" means a period of at least 12 months during which a Grantee may earn Performance-Based Compensation.

(ao) "Person" means an individual, a corporation, a partnership, an association, a trust or any other entity or organization.

(ap) "Plan" means the Comcast Corporation 2002 Restricted Stock Plan, as set forth herein, and as amended from time to time.

(aq) "Prime Rate" means, for any calendar year, the interest rate that, when compounded daily pursuant to rules established by the Committee from time to time, is mathematically equivalent to the prime rate of interest (compounded annually) as published in the Eastern Edition of The Wall Street Journal on the last business day preceding the first day of such calendar year, and as adjusted as of the last business day preceding the first day of each calendar year beginning thereafter.

(ar) "Regular Deferral Election" means a written election on a form provided by the Committee, pursuant to which a Grantee: (i) elects, within the time or times specified in Paragraph 8(a)(ii), to defer the distribution date of Shares issuable with respect to Restricted Stock Units; and (ii) designates the distribution date of such Shares.

(as) "Restricted Stock" means Shares subject to restrictions as set forth in an Award.

(at) "Restricted Stock Unit" means a unit that entitles the Grantee, upon the Vesting Date set forth in an Award, to receive one Share.

(au) "Retired Grantee" means a Grantee who has terminated employment pursuant to a Normal Retirement.

(av) "Rule 16b-3" means Rule 16b-3 promulgated under the 1934 Act, as in effect from time to time.

(aw) "Section 16(b) Officer" means an officer of the Company who is subject to the short-swing profit recapture rules of section 16(b) of the 1934 Act.

(ax) "Share" or "Shares" means a share or shares of Common Stock.

(ay) "Special Diversification Election" means, with respect to each separate Award, a Diversification Election by a Grantee other than a Non-Employee Director to have more than 40 percent of the Deferred Stock Units credited to such Grantee's Account in the Company Stock Fund liquidated and credited thereafter under the Income Fund, as provided in Paragraph 8(k)(i), if (and to the extent that) it is approved by the Committee or its delegate in accordance with Paragraph 8(k)(ii).

(az) "Subsequent Deferral Election" means a written election on a form provided by the Committee, filed with the Committee in accordance with Paragraph 8(d), pursuant to which a Grantee: (i) elects, within the time or times specified in Paragraph 8(d), to further defer the distribution date of Shares issuable with respect to Restricted Stock or Restricted Stock Units; and (ii) designates the distribution date of such Shares.

(ba) "Subsidiary Companies" means all business entities that, at the time in question, are subsidiaries of the Company, within the meaning of section 424(f) of the Code.

(bb) "Successor-in-Interest" means the estate or beneficiary to whom the right to payment under the Plan shall have passed by will or the laws of descent and distribution.

(bc) "Terminating Event" means a Change in Control.

(bd) "Third Party" means any Person, together with such Person's Affiliates, provided that the term "Third Party" shall not include the Company or an Affiliate of the Company.

(be) "Vesting Date" means, as applicable: (i) the date on which the restrictions imposed on a Share of Restricted Stock lapse or (ii) the date on which the Grantee vests in a Restricted Stock Unit.

(bf) "1933 Act" means the Securities Act of 1933, as amended.

(bg) "1934 Act" means the Securities Exchange Act of 1934, as amended.

3. **RIGHTS TO BE GRANTED**

Rights that may be granted under the Plan are:

(a) Rights to Restricted Stock which gives the Grantee ownership rights in the Shares subject to the Award, subject to a substantial risk of forfeiture, as set forth in Paragraph 7, and to deferred payment, as set forth in Paragraph 8; and

(b) Rights to Restricted Stock Units which give the Grantee the right to receive Shares upon a Vesting Date, as set forth in Paragraph 7, and to deferred payment, as set forth in Paragraph 8. The maximum number of Shares subject to Awards that may be granted to any single individual in any calendar year, adjusted as provided in Paragraph 10, shall be 4.0 million Shares.

4. **SHARES SUBJECT TO THE PLAN**

(a) Shares Available for Grant. Subject to adjustment as provided in Paragraph 10, not more than 268 million Shares in the aggregate may be issued under the Plan pursuant to the grant of Awards. The Shares issued under the Plan may, at the Company's option, be either Shares held in treasury or Shares originally issued for such purpose.

(b) Shares Returned to the Reserve. If Restricted Stock or Restricted Stock Units are forfeited pursuant to the terms of an Award, the Shares underlying such forfeited Award shall return to the pool of Shares available for issuance under the Plan.

(c) Share Recycling Prohibitions. If the Company withholds Shares to satisfy its tax withholding obligations, such withheld Shares shall not again become available for Awards or increase the number of Shares available for grant under Paragraph 4(a).

5. **ADMINISTRATION OF THE PLAN**

(a) Administration. The Plan shall be administered by the Committee, provided that with respect to Awards to Non-Employee Directors, the rules of this Paragraph 5 shall apply so that all references in this Paragraph 5 to the Committee shall be treated as references to either the Board or the Committee acting alone.

(b) Grants. Subject to the express terms and conditions set forth in the Plan, the Committee shall have the power, from time to time, to select those Employees and Non-Employee Directors to whom Awards shall be granted under the Plan, to determine the number of Shares and/or Restricted Stock Units, as applicable, to be granted pursuant to each Award, and, pursuant to the provisions of the Plan, to determine the terms and conditions of each Award, including the restrictions applicable to such Shares and the conditions upon which a Vesting Date shall occur. The determination of the Committee in all such matters shall be conclusive.

(c) Meetings. The Committee shall hold meetings at such times and places as it may determine. Acts approved at a meeting by a majority of the members of the Committee or acts approved in writing by the unanimous consent of the members of the Committee shall be the valid acts of the Committee.

(d) Exculpation. No member of the Committee shall be personally liable for monetary damages for any action taken or any failure to take any action in connection with the administration of the Plan or the granting of Awards thereunder unless (i) the member of the Committee has breached or failed to perform the duties of his office, and (ii) the breach or failure to perform constitutes self-dealing, willful misconduct or recklessness; provided, however, that the provisions of this Paragraph 5(d) shall not apply to the responsibility or liability of a member of the Committee pursuant to any criminal statute.

(e) Indemnification. Service on the Committee shall constitute service as a member of the Board. Each member of the Committee shall be entitled without further act on his part to indemnity from the Company to the fullest extent provided by applicable law and the Company' s Articles of Incorporation and By-laws in connection with or arising out of any action, suit or proceeding with respect to the administration of the Plan or the granting of Awards thereunder in which he may be involved by reason of his being or having been a member of the Committee, whether or not he continues to be such member of the Committee at the time of the action, suit or proceeding.

(f) Delegation of Authority. The Committee may delegate its authority with respect to the grant, amendment, interpretation and administration of grants and awards of restricted stock and restricted stock units to a person, persons or committee, in its sole and absolute discretion. Actions taken by the Committee's duly-authorized delegate shall have the same force and effect as actions taken by the Committee. Any delegation of authority pursuant to this Paragraph 5(f) shall continue in effect until the earliest of:

(i) such time as the Committee shall, in its sole and absolute discretion, revoke such delegation of authority;

(ii) in the case of delegation to a person that is conditioned on such person's continued service as an employee of the Company or as a member of the Board, the date such delegate shall cease to serve in such capacity for any reason; or

(iii) the delegate shall notify the Committee that he or she declines to continue to exercise such authority.

6. **ELIGIBILITY**

Awards may be granted only to Eligible Employees and Non-Employee Directors.

7. **RESTRICTED STOCK AND RESTRICTED STOCK UNIT AWARDS**

The Committee may grant Awards in accordance with the Plan, provided that the Board or the Committee may grant Awards to Non-Employee Directors authorized by the Comcast Corporation 2002 Non-Employee Director Compensation Plan, or otherwise. With respect to Awards to Non-Employee Directors, the rules of this Paragraph 7 shall apply so that either the Board or the Committee acting alone shall have all of the authority otherwise reserved in this Paragraph 7 to the Committee.

The terms and conditions of Awards shall be set forth in writing as determined from time to time by the Committee, consistent, however, with the following:

(a) Time of Grant. All Awards shall be granted on or before May 19, 2026.

(b) Terms of Awards. The provisions of Awards need not be the same with respect to each Grantee. No cash or other consideration shall be required to be paid by the Grantee in exchange for an Award.

(c) Awards and Agreements. Each Grantee shall be provided with an agreement specifying the terms of an Award. The Company shall arrange for the recording of Grantee's ownership of the Restricted Stock on a book entry recordkeeping system maintained on behalf of the Company.

(d) Restrictions. Subject to the provisions of the Plan and the Award, the Committee may establish a period commencing with the Date of Grant during which the Grantee shall not be permitted to sell, transfer, pledge or assign Restricted Stock or Restricted Stock Units awarded under the Plan.

(e) Vesting/Lapse of Restrictions. Subject to the provisions of the Plan and the Award, a Vesting Date for Restricted Stock or Restricted Stock Units subject to an Award shall occur at such time or times and on such terms and conditions as the Committee may determine and as are set forth in the Award; provided, however, that except as otherwise provided by the Committee, a Vesting Date shall occur only if the Grantee is an employee of a Participating Company as of such Vesting Date, and has been an employee of a Participating Company continuously from the Date of Grant. The Award may provide for Restricted Stock or Restricted Stock Units to vest in installments, as determined by the Committee. The Committee may, in its sole discretion, waive, in whole or in part, any remaining conditions to vesting with respect to such Grantee's Restricted Stock or Restricted Stock Units, provided that for avoidance of doubt, such unilateral discretion shall not apply to any grant of rights that is designated as intended to satisfy the rules for performance-based compensation under section 162(m) of the Code.

(f) Rights of the Grantee. Grantees may have such rights with respect to Shares subject to an Award as may be determined by the Committee and set forth in the Award, including the right to vote such Shares, and the right to receive dividends paid with respect to such Shares. A Grantee whose Award consists of Restricted Stock Units shall not have the right to vote with respect to such Restricted Stock Units. With respect to Awards of Restricted Stock Units granted prior to March 1, 2015, a Grantee shall not have the right to receive dividend equivalents with respect to such Restricted Stock Units.

(g) Dividend Equivalents. With respect to Awards of Restricted Stock Units granted on and after March 1, 2015, the Committee may, in its discretion, provide for the payment of dividend equivalents with respect to Restricted Stock Units, which may be paid directly to the Grantee, accrued and paid by the Company at such time or times specified in the applicable agreement specifying the terms of an Award, or treated as reinvested in additional Restricted Stock Units, or a combination thereof, as determined by the Committee in its sole discretion.

(h) Termination of Grantee's Employment. A transfer of an Eligible Employee between two employers, each of which is a Participating Company, shall not be deemed a termination of employment. In the event that a Grantee's employment with all Participating Companies terminates, all Restricted Shares and/or Restricted Stock Units as to which a Vesting Date has not occurred shall be forfeited by the Grantee and deemed canceled by the Company.

(i) Delivery of Shares. For purposes of the Plan, the Company may satisfy its obligation to deliver Shares issuable under the Plan by arranging for the recording of Grantee's ownership of Shares issuable under the Plan on a book entry recordkeeping system maintained on behalf of the Company. Except as otherwise provided by Paragraph 8, when a Vesting Date occurs with respect to all or a portion of an Award of Restricted Stock or Restricted Stock Units, the Company shall notify the Grantee that a Vesting Date has occurred, and shall deliver to the Grantee (or the Grantee's Successor-in-Interest) Shares as to which a Vesting Date has occurred (or in the case of Restricted Stock Units, the number of Shares represented by such Restricted Stock Units) without any legend or restrictions (except those that may be imposed by the Committee, in its sole judgment, under Paragraph 9(a)). The right to payment of any fractional Shares that may have accrued shall be satisfied in cash, measured by the product of the fractional amount times the Fair Market Value of a Share at the Vesting Date, as determined by the Committee.

8. **DEFERRAL ELECTIONS**

A Grantee may elect to defer the receipt of Shares that would otherwise be issuable with respect to Restricted Stock Units as to which a Vesting Date has not occurred, as provided by the Committee in the Award, consistent, however, with the following:

(a) Initial Deferral Election and Regular Deferral Election.

(i) Initial Deferral Election.

(A) Election. Each Grantee who is a Non-Employee Director or a Deferral Eligible Employee shall have the right to defer the receipt of some or all of the Shares issuable with respect to Restricted Stock Units as to which a Vesting Date has not yet occurred, by filing an Initial Deferral Election to defer the receipt of such Shares on a form provided by the Committee for this purpose.

(B) Deadline for Initial Deferral Election. No Initial Deferral Election to defer the receipt of Shares issuable with respect to Restricted Stock Units that are not Performance-Based Compensation shall be effective unless it is filed with the Committee on or before the 30th day following the Date of Grant and 12 or more months in advance of the applicable Vesting Date. No Initial Deferral Election to defer the receipt of Shares issuable with respect to Restricted Stock Units that are Performance-Based Compensation shall be effective unless it is filed with the Administrator at least six months before the end of the Performance Period during which such Performance-Based Compensation may be earned.

(ii) Regular Deferral Election.

(A) Election. Each Grantee who is a Deferral Eligible Employee shall have the right to defer the receipt of some or all of the Shares issuable with respect to Restricted Stock Units as to which a Vesting Date has not yet occurred, and that are not subject to an Initial Deferral Election, by filing a Regular Deferral Election to defer the receipt of such Shares on a form provided by the Committee for this purpose.

(B) Deadline for Regular Deferral Election. No Regular Deferral Election to defer the receipt of Shares issuable with respect to Restricted Stock Units shall be effective unless it is filed with the Committee on or before the close of business at least one year before the scheduled Vesting Date of such Restricted Stock Units.

(b) Effect of Failure of Vesting Date to Occur. An Election shall be null and void if a Vesting Date with respect to the Restricted Stock Units does not occur before the distribution date for Shares issuable with respect to such Restricted Stock Units identified in such Election.

(c) Deferral Period. Except as otherwise provided in Paragraph 8(d), all Shares issuable with respect to Restricted Stock Units that are subject to an Election shall be delivered to the Grantee (or the Grantee's Successor-in-Interest) without any legend or restrictions (except those that may be imposed by the Committee, in its sole judgment, under Paragraph 9(a)), on the distribution date for such Shares designated by the Grantee on the most recently filed Election. The distribution date may vary with each separate Election.

(i) Initial Deferral Election. Except as otherwise specifically provided by the Plan, no distribution pursuant to an Initial Deferral Election may be made earlier than January 2nd of the third calendar year beginning after the Vesting Date, nor later than January 2nd of the eleventh calendar year beginning after the Vesting Date.

(ii) Regular Deferral Election. No distribution pursuant to a Regular Deferral Election may be made before the fifth anniversary or later than the tenth

anniversary of the scheduled Vesting Date of the Restricted Stock Units to which the Regular Deferral Election applies.

(d) Additional Elections. Notwithstanding anything in this Paragraph 8(d) to the contrary, no Subsequent Deferral Election shall be effective until 12 months after the date on which such Subsequent Deferral Election is made.

(i) Each Active Grantee (A) who has previously made an Initial Deferral Election or a Regular Deferral Election to receive a distribution of part or all of his or her Account, or (B) who, pursuant to this Paragraph 8(d)(i) has made a Subsequent Deferral Election to defer the distribution date for Shares issuable with respect to Restricted Stock Units for an additional period from the originally-elected distribution date, may elect to defer the distribution date for a minimum of five and a maximum of ten additional years from the previously-elected distribution date, by filing a Subsequent Deferral Election with the Committee on or before the close of business at least one year before the date on which the distribution would otherwise be made. Notwithstanding the foregoing, except as otherwise provided by the Committee, an Active Grantee who is re-employed by a Participating Company following an employment termination date may not make a Subsequent Deferral Election with respect to amounts subject to an Initial Deferral Election or a Subsequent Deferral Election that was filed with the Committee before such employment termination date.

(ii) A Deceased Grantee's Successor-in-Interest may elect to file a Subsequent Deferral Election to defer the distribution date for the Deceased Grantee's Shares issuable with respect to Restricted Stock Units for five additional years from the date payment would otherwise be made. A Subsequent Deferral Election must be filed with the Committee at least one year before the date on which the distribution would otherwise be made, as reflected on the Deceased Grantee's last Election.

(iii) A Retired Grantee may elect to defer the distribution date of the Retired Grantee's Shares issuable with respect to Restricted Stock Units for five additional years from the date payment would otherwise be made. A Subsequent Deferral Election must be filed with the Committee at least one year before the date on which the distribution would otherwise be made, as reflected on the Retired Grantee's last Election.

(e) Discretion to Provide for Distribution in Full Upon or Following a Change in Control. To the extent permitted by Section 409A, in connection with a Change in Control, and for the 12-month period following a Change in Control, the Committee may exercise its discretion to terminate the deferral provisions of the Plan and, notwithstanding any other provision of the Plan or the terms of any Initial Deferral Election, Regular Deferral Election or Subsequent Deferral Election, distribute the Account of each Grantee in full and thereby effect the revocation of any outstanding Initial Deferral Elections, Regular Deferral Election or Subsequent Deferral Elections.

(f) Hardship. Notwithstanding the terms of an Initial Deferral Election, Regular Deferral Election or Subsequent Deferral Election, if, at the Grantee's request, the Committee determines that the Grantee has incurred a Hardship, the Committee may, in its discretion, authorize the immediate distribution of all or any portion of the Grantee's Account.

(g) Other Acceleration Events. To the extent permitted by Section 409A, notwithstanding the terms of an Initial Deferral Election, Regular Deferral Election or Subsequent Deferral Election, distribution of all or part of a Grantee's Account may be made:

(i) To fulfill a domestic relations order (as defined in section 414(p)(1)(B) of the Code) to the extent permitted by Treasury Regulations section 1.409A-3(j)(4)(ii) or any successor provision of law).

(ii) To the extent necessary to comply with laws relating to avoidance of conflicts of interest, as provided in Treasury Regulation section 1.409A-3(j)(4)(iii) (or any successor provision of law).

(iii) To pay employment taxes to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(vi) (or any successor provision of law).

(iv) In connection with the recognition of income as the result of a failure to comply with Section 409A, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(vii) (or any successor provision of law).

(v) To pay state, local or foreign taxes to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xi) (or any successor provision of law).

(vi) In satisfaction of a debt of a Grantee to a Participating Company where such debt is incurred in the ordinary course of the service relationship between the Grantee and the Participating Company, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xiii) (or any successor provision of law).

(vii) In connection with a bona fide dispute as to a Grantee's right to payment, to the extent permitted by Treasury Regulation section 1.409A-3(j)(4)(xiv) (or any successor provision of law).

(h) Book Accounts. An Account shall be established for each Grantee who makes an Election. Deferred Stock Units shall be credited to the Account as of the date an Election becomes effective. Each Deferred Stock Unit will represent a hypothetical share of Common Stock credited to the Account in lieu of delivery of the Shares to which the Election applies. To the extent an Account is deemed invested in the Income Fund, the Committee shall credit earnings with respect to such Account at the Applicable Interest Rate, as further provided in Paragraph 8(k).

(i) Plan-to-Plan Transfers. The Administrator may delegate its authority to arrange for plan-to-plan transfers as described in this Paragraph 8(i) to an officer of the Company or committee of two or more officers of the Company.

(i) The Administrator may, with a Grantee's consent, make such arrangements as it may deem appropriate to transfer the Company's obligation to pay benefits with respect to such Grantee which have not become payable under this Plan, to another employer, whether through a deferred compensation plan, program or arrangement sponsored by such other employer or otherwise, or to another deferred compensation plan, program or arrangement sponsored by the Company or an Affiliate. Following the completion of such transfer, with respect to the benefit transferred, the Grantee shall have no further right to payment under this Plan.

(ii) The Administrator may, with a Grantee's consent, make such arrangements as it may deem appropriate to assume another employer's obligation to pay benefits with respect to such Grantee which have not become payable under the deferred compensation plan, program or arrangement under which such future right to payment arose, to the Plan, or to assume a future payment obligation of the Company or an Affiliate under another plan, program or arrangement sponsored by the Company or an Affiliate. Upon the completion of the Plan's assumption of such payment obligation, the Administrator shall establish an Account for such Grantee, and the Account shall be subject to the rules of this Plan, as in effect from time to time.

(j) Crediting of Income, Gains and Losses on Accounts. Except as otherwise provided in Paragraph 8(k), the value of a Grantee's Account as of any date shall be determined as if it were invested in the Company Stock Fund.

(k) Diversification Elections.

(i) In General. Except as otherwise provided in Paragraph 8(k)(v):

(A) A Diversification Election shall be available: (x) at any time that a Registration Statement filed under the 1933 Act (a "Registration Statement") is effective with respect to the Plan; and (y) with respect to a Special Diversification Election, if and to the extent that the opportunity to make such a Special Diversification Election has been approved by the Committee or its delegate.

(B) No approval is required for a Diversification Election other than a Special Diversification Election.

(ii) Committee Approval of Special Diversification Elections. The opportunity to make a Special Diversification Election and the extent to which a Special Diversification Election applies to Deferred Stock Units credited to the Company Stock Fund may be approved or rejected by the Committee or its delegate in its sole discretion. A Special Diversification Election shall only be effective if (and to the extent) approved by the Committee or its delegate.

(iii) Timing and Manner of Making Diversification Elections. Each Grantee and, in the case of a Deceased Grantee, the Successor-in-Interest, may make a Diversification Election to convert up to 40 percent (or in the case of a Special Diversification Election, up to the approved percentage) of Deferred Stock Units attributable to such Award credited to the Company Stock Fund to the Income Fund. No deemed transfers shall be permitted from the Income Fund to the Company Stock Fund. Diversification Elections under this Paragraph 8(k)(iii) shall be prospectively effective on the later of: (A) the date designated by the Grantee on a Diversification Election filed with the Committee; or (B) the business day next following the lapse of six months from the date Deferred Stock Units subject to the Diversification Election are credited to the Grantee's Account. In no event may a Diversification Election be effective earlier than the business day next following the lapse of six (6) months from the date Deferred Stock Units are credited to the Account following the lapse of restrictions with respect to an Award.

(iv) Timing of Credits. Account balances subject to a Diversification Election under this Paragraph 8(k) shall be deemed transferred from the Company Stock Fund to the Income Fund immediately following the effective date of such Diversification Election. The value of amounts deemed invested in the Income Fund immediately following the effective date of a Diversification Election shall be based on hypothetical sales of Common Stock underlying the liquidated Deferred Stock Units at Fair Market Value as of the effective date of a Diversification Election.

(v) Diversification Limit. No Diversification Election or Special Diversification Election during a calendar year by an Eligible Employee shall be effective if the sum of (x) the value of the Eligible Employee's Account in the 2005 Deferred Compensation Plan, plus (y) the value of the Eligible Employee's Account in the 2002 Deferred Compensation Plan, plus (z) the value of the Eligible Employee's Account in this Plan to the extent

such Account is credited to the "Income Fund," exceeds the "Contribution Limit" (as defined in the 2005 Deferred Compensation Plan) with respect to such calendar year, determined as of September 30th immediately preceding such calendar year.

(l) Grantees' Status as General Creditors. A Grantee's right to delivery of Shares subject to an Election under this Paragraph 8, or to amounts deemed invested in the Income Fund pursuant to a Diversification Election, shall at all times represent the general obligation of the Company. The Grantee shall be a general creditor of the Company with respect to this obligation, and shall not have a secured or preferred position with respect to such obligation. Nothing contained in the Plan or an Award shall be deemed to create an escrow, trust, custodial account or fiduciary relationship of any kind. Nothing contained in the Plan or an Award shall be construed to eliminate any priority or preferred position of a Grantee in a bankruptcy matter with respect to claims for wages.

(m) Non-Assignability, Etc. The right of a Grantee to receive Shares subject to an Election under this Paragraph 8, or to amounts deemed invested in the Income Fund pursuant to a Diversification Election, shall not be subject in any manner to attachment or other legal process for the debts of such Grantee; and no right to receive Shares or cash payments hereunder shall be subject to anticipation, alienation, sale, transfer, assignment or encumbrance.

(n) Required Suspension of Payment of Benefits. Notwithstanding any provision of the Plan or any Grantee's election as to the date or time of payment of any benefit payable under the Plan, To the extent compliance with the requirements of Treas. Reg. § 1.409A-3(i)(2) (or any successor provision) is necessary to avoid the application of an additional tax under Section 409A to payments due to the Grantee upon or following his separation from service, then notwithstanding any other provision of this Plan, any such payments that are otherwise due within six months following the Grantee's separation from service will be deferred and paid to the Grantee in a lump sum immediately following that six month period.

9. **SECURITIES LAWS; TAXES**

(a) Securities Laws. The Committee shall have the power to make each grant of Awards under the Plan subject to such conditions as it deems necessary or appropriate to comply with the then-existing requirements of the 1933 Act and the 1934 Act, including Rule 16b-3. Such conditions may include the delivery by the Grantee of an investment representation to the Company in connection with a Vesting Date occurring with respect to Shares subject to an Award, or the execution of an agreement by the Grantee to refrain from selling or otherwise disposing of the Shares acquired for a specified period of time or on specified terms.

(b) Taxes. Subject to the rules of Paragraph 9(c), the Company shall be entitled, if necessary or desirable, to withhold the amount of any tax, charge or assessment attributable to the grant of any Award or the occurrence of a Vesting Date with respect to any Award, or distribution of all or any part of a Grantee's Account. The Company shall not be required to deliver Shares pursuant to any Award or distribute a Grantee's Account until it has been indemnified to its satisfaction for any such tax, charge or assessment.

(c) Payment of Tax Liabilities; Election to Withhold Shares or Pay Cash to Satisfy Tax Liability.

(i) In connection with the grant of any Award, the occurrence of a Vesting Date under any Award or the distribution of a Grantee's Account, or if, under the terms of an Award, a Grantee's rights with respect to Restricted Stock Units become free of a substantial risk of forfeiture as the result of the Grantee's satisfaction of the age and service conditions for retirement eligibility, and, as a result thereof, employment tax liabilities arise, the Company shall have the right to (A) require the Grantee to remit to the Company an amount

sufficient to satisfy any federal, state and/or local withholding tax requirements, or (B) take any action whatever that it deems necessary to protect its interests with respect to tax liabilities. The Company's obligation to make any delivery or transfer of Shares shall be conditioned on the Grantee's compliance, to the Company's satisfaction, with any withholding requirement.

(ii) Except as otherwise provided in this Paragraph 9(c)(ii), any tax withholding obligations incurred in connection with the grant of any Award, the occurrence of a Vesting Date under any Award under the Plan that is not subject to an Initial Deferral Election, Regular Deferral Election or Subsequent Deferral Election, or the distribution of the portion of a Grantee's Account that is credited to the Company Stock Fund, shall be satisfied by the Company's withholding a portion of the Shares subject to such Award having a Fair Market Value approximately equal to the minimum amount of taxes required to be withheld by the Company under applicable law, unless otherwise determined by the Committee with respect to any Grantee. Notwithstanding the foregoing, the Committee may permit a Grantee to elect one or more of the following:

(A) To the extent permitted by applicable law, to have taxes withheld in excess of the minimum amount required to be withheld by the Company under applicable law, provided that the Grantee certifies in writing to the Company at the time of such election that the Grantee owns Other Available Shares having a Fair Market Value that is at least equal to the Fair Market Value to be withheld by the Company in payment of withholding taxes in excess of such minimum amount;

(B) With respect to tax liabilities arising on or after January 1, 2017, to have Shares otherwise deliverable to the Grantee after the application of the other provisions of this Paragraph 9(c)(ii) redeemed by the Company for the Fair Market Value of such Shares on the vesting date or other time of delivery of Shares, and have the cash proceeds of such redemption remitted by the Company to the Grantee to facilitate one or more estimated tax payments to the Internal Revenue Service or other taxing authority for the taxable year in which such vesting occurs, provided that the Grantee certifies in writing to the Company at the time of such election that the Grantee owns Other Available Shares having a Fair Market Value that is at least equal to the Fair Market Value of such Shares to be redeemed by the Company; and

(C) To pay to the Company in cash all or a portion of the taxes to be withheld in connection with such grant, Vesting Date or Account distribution.

In all cases, the Shares so withheld or redeemed by the Company, as applicable, shall have a Fair Market Value that does not exceed the amount of taxes to be withheld or remitted via estimated tax payments minus the cash payment, if any, made by the Grantee or withheld from an Account distribution. Any election pursuant to this Paragraph 9(c)(ii) must be in writing made prior to the date specified by the Committee, and in any event prior to the date the amount of tax to be withheld or paid is determined. An election pursuant to this Paragraph 9(c)(ii) may be made only by a Grantee

or, in the event of the Grantee's death, by the Grantee's legal representative. Shares withheld or redeemed, as applicable, pursuant to this Paragraph 9(c)(ii) shall not be available for subsequent grants under the Plan. The Committee may add such other requirements and limitations regarding elections pursuant to this Paragraph 9(c)(ii) as it deems appropriate.

(iii) If part of a Grantee's Award is subject to an Initial Deferral Election or a Regular Deferral Election, or, under the terms of an Award, a Grantee's rights with respect to Restricted Stock Units become free of a substantial risk of forfeiture as the result of the satisfaction of a performance or service condition, or the Grantee's satisfaction of the age and service conditions for retirement eligibility, and, as a result thereof, employment tax liabilities arise, then, except to the extent the Grantee affirmatively elects otherwise as part of the Initial Deferral Election or Regular Deferral Election, the Grantee shall be required to remit to the Company an amount sufficient to satisfy any federal, state and/or local withholding tax requirements. As part of the Grantee's Initial Deferral Election or Regular Deferral Election, the Grantee may elect that Shares subject to such Award be withheld by the Company to the extent necessary to pay such employment tax liabilities (on a fully grossed-up basis to cover income and other withholding tax liabilities that may arise in connection with such an event), notwithstanding that such Shares may not yet have vested and become deliverable in accordance with the terms of the Award. Shares withheld pursuant to this Paragraph 9(c)(iii) shall be deemed allocated and offset against the number of Restricted Stock Units that may become subject to vesting under the terms of the Award on a basis pro rata to the Restricted Stock Units that give rise to the employment tax liabilities. With respect to any Grantee under the Plan who is subject to the short-swing profit recapture rules of section 16(b) of the 1934 Act, the requirement to withhold Shares pursuant to this Paragraph 9(c)(iii) is intended to permit such Grantees to obtain the benefit of section 16(b)(3)(e) of the 1934 Act.

10. **CHANGES IN CAPITALIZATION**

The aggregate number of Shares and class of Shares as to which Awards may be granted and the number of Shares covered by each outstanding Award shall be appropriately adjusted in the event of a stock dividend, stock split, recapitalization or other change in the number or class of issued and outstanding equity securities of the Company resulting from a subdivision or consolidation of the Shares and/or other outstanding equity security or a recapitalization or other capital adjustment (not including the issuance of Shares and/or other outstanding equity securities on the conversion of other securities of the Company which are convertible into Shares and/or other outstanding equity securities) affecting the Shares which is effected without receipt of consideration by the Company. The Committee shall have authority to determine the adjustments to be made under this Paragraph 10 and any such determination by the Committee shall be final, binding and conclusive.

11. **TERMINATING EVENTS**

(a) The Committee shall give Grantees at least thirty (30) days' notice (or, if not practicable, such shorter notice as may be reasonably practicable) prior to the anticipated date of the consummation of a Terminating Event. Except as otherwise provided in Paragraph 11(b), the Committee may, in its discretion, provide in such notice that upon the consummation of such

Terminating Event, any conditions to the occurrence of a Vesting Date with respect to an Award of Restricted Stock or Restricted Stock Units (other than Restricted Stock or Restricted Stock Units that have previously been forfeited) shall be eliminated, in full or in part. Further, the Committee may, in its discretion, provide in such notice that notwithstanding any other provision of the Plan or the terms of any Election made pursuant to Paragraph 8, upon the consummation of a Terminating Event, Shares issuable with respect to Restricted Stock or Restricted Stock Units subject to an Election made pursuant to Paragraph 8 shall be transferred to the Grantee, and all amounts credited to the Income Fund shall be paid to the Grantee.

(b) No amounts subject to an Award under the Plan that constitute "deferred compensation" (as defined in Section 409A) shall be subject to distribution before the scheduled vesting date for such distribution in connection with a Change in Control unless such Change in Control constitutes a change in the ownership or effective control of the Company, or in the ownership of a substantial portion of the Company's assets (in either case, as defined in Section 409A of the Code), except to the extent that earlier distribution would not result in any obligation to pay interest or additional tax under Section 409A.

12. **CLAIMS PROCEDURE**

If an individual (hereinafter referred to as the "Applicant," which reference shall include the legal representative, if any, of the individual) does not receive timely payment of benefits to which the Applicant believes he is entitled under Paragraph 8 of the Plan, the Applicant may make a claim for benefits in the manner hereinafter provided.

An Applicant may file a claim for benefits with the Committee on a form supplied by the Committee. If the Committee wholly or partially denies a claim, the Committee shall provide the Applicant with a written notice stating:

(a) The specific reason or reasons for the denial;

(b) Specific reference to pertinent Plan provisions on which the denial is based;

(c) A description of any additional material or information necessary for Applicant to perfect the claim and an explanation of why such material or information is necessary; and

(d) Appropriate information as to the steps to be taken in order to submit a claim for review.

Written notice of a denial of a claim shall be provided within 90 days of the receipt of the claim, provided that if special circumstances require an extension of time for processing the claim, the Committee may notify the Applicant in writing that an additional period of up to 90 days will be required to process the claim.

If the Applicant's claim is denied, the Applicant shall have 60 days from the date of receipt of written notice of the denial of the claim to request a review of the denial of the claim by the Committee. Request for review of the denial of a claim must be submitted in writing. The Applicant shall have the right to review pertinent documents and submit issues and comments to the Committee in writing. The Committee shall provide a written decision within 60 days of its receipt of the Applicant's request for review, provided that if special circumstances require an extension of time for processing the review of the Applicant's claim, the Committee may notify the Applicant in writing that an additional period of up to 60 days shall be required to process the Applicant's request for review.

It is intended that the claims procedures of this Plan be administered in accordance with the claims procedure regulations of the Department of Labor set forth in 29 CFR § 2560.503-1.

Claims for benefits under the Plan must be filed with the Committee at the following address:

Comcast Corporation

One Comcast Center, 52nd Floor

1701 John F. Kennedy Boulevard

Philadelphia, PA 19103-2838

Attention: General Counsel

13. **REPAYMENT**

If it is determined by the Board that gross negligence, intentional misconduct or fraud by a Section 16(b) Officer or a former Section 16(b) Officer caused or partially caused the Company to have to restate all or a portion of its financial statements, the Board, in its sole discretion, may, to the extent permitted by law and to the extent it determines in its sole judgment that it is in the best interests of the Company to do so, require repayment of any Shares of Restricted Stock granted after February 28, 2007 or Shares delivered pursuant to the vesting of Restricted Stock Units granted after February 28, 2007 to such Section 16(b) Officer or former Section 16(b) Officer, or to effect the cancellation of unvested Restricted Stock or unvested Restricted Stock Units, if (i) the vesting of the Award was calculated based upon, or contingent on, the achievement of financial or operating results that were the subject of or affected by the restatement, and (ii) the extent of vesting of the Award would have been less had the financial statements been correct. In addition, to the extent that the receipt of an Award subject to repayment under this Paragraph 13 has been deferred pursuant to Paragraph 8 (or any other plan, program or arrangement that permits the deferral of receipt of an Award), such Award (and any earnings credited with respect thereto) shall be forfeited in lieu of repayment.

14. **AMENDMENT AND TERMINATION**

The Plan may be terminated by the Board at any time. The Plan may be amended by the Board or the Committee at any time. No Award shall be affected by any such termination or amendment without the written consent of the Grantee.

15. **Interpretation**

The Committee shall have the power to interpret the Plan's provisions, prescribe, amend and rescind rules and regulations for the Plan, and make all other determinations necessary or advisable for the administration of the Plan. All determinations by the Committee shall be final, conclusive and binding on all Persons, including Grantees and their beneficiaries.

16. TERM OF PLAN

The Plan shall expire on May 19, 2026, unless sooner terminated by the Board.

17. GOVERNING LAW

The Plan and all determinations made and actions taken pursuant to the Plan shall be governed in accordance with Pennsylvania law.

Executed on the 18th day of December, 2018.

COMCAST CORPORATION

BY:/s/ David L. Cohen

ATTEST:/s/ Arthur R. Block

COMCAST CORPORATION

2002 NON-EMPLOYEE DIRECTOR COMPENSATION PLAN

(As Amended And Restated, Effective December 5, 2017)

1. BACKGROUND AND PURPOSE

COMCAST CORPORATION, a Pennsylvania corporation, hereby amends and restates the Comcast Corporation 2002 Non-Employee Director Compensation Plan**,** effective December 5, 2017, except as otherwise specifically provided herein. The purpose of the Plan is to provide Non-Employee Directors of COMCAST CORPORATION (the "Company") with compensation for services to the Company.

2. DEFINITIONS

(a) "Annual Retainer" means the amount payable for service as a Non-Employee Director for a calendar year, as a member of the Board, and as a member of one or more Committees as determined under Paragraph 3(a) of the Plan.

(b) "Board" means the Board of Directors of the Company.

(c) "Board Meeting" means a meeting of the Board, whether in person or by telephone.

(d) "Committee" means a duly-constituted committee of the Board.

(e) "Committee Meeting" means a meeting of a Committee, whether in person or by telephone, other than a meeting of a Committee that is convened and held during a Board Meeting.

(f) "Company" means Comcast Corporation, a Pennsylvania corporation, including any successor thereto by merger, consolidation, acquisition of all or substantially all the assets thereof, or otherwise.

(g) "Deferred Compensation Plan" means the Comcast Corporation 2005 Deferred Compensation Plan, as amended from time to time, or such other more recently-adopted plan pursuant to which a Non-Employee Director may elect to defer the receipt of compensation for service as a Non-Employee Director.

(h) "Director Emeritus" means an individual designated by the Board, in its sole discretion, as Director Emeritus, pursuant to the Board's Director Emeritus Policy.

(i) "Fair Market Value" means:

(i) If Shares are listed on a stock exchange, Fair Market Value shall be determined based on the last reported sale price of a Share on the principal exchange on which Shares are listed on the date of determination, or if such date is not a trading day, the next trading date.

(ii) If Shares are not so listed, but trades of Shares are reported on the Nasdaq National Market, Fair Market Value shall be determined based on the last quoted sale price of a

Share on the Nasdaq National Market on the date of determination, or if such date is not a trading day, the next trading date.

(iii) If Shares are not so listed nor trades of Shares so reported, Fair Market Value shall be determined by the Committee in good faith.

(j) "Non-Employee Director" means an individual who is a member of the Board, and who is not an employee of the Company, including an individual who is a member of the Board and who previously was an employee of the Company.

(k) "Plan" means the Comcast Corporation 2002 Non-Employee Director Compensation Plan, as set forth herein, and as amended from time to time.

(l) "Plan Year" means the calendar year.

(m) "Restricted Stock Plan" means the Comcast Corporation 2002 Restricted Stock Plan (or such other more recently-adopted generally applicable plan pursuant to which the Company grants restricted stock or restricted stock units).

(n) "Restricted Stock Unit" means a Restricted Stock Unit granted under the Restricted Stock Plan.

(o) "Share" means a share of Comcast Corporation Class A Common Stock, par value $0.01.

3. NON-EMPLOYEE DIRECTOR COMPENSATION

(a) Non-Employee Director Compensation Package. Effective January 1, 2018, Non-Employee Directors shall be entitled to payments, grants and awards determined as follows:

(i) Annual Retainer. The Annual Retainer for service to the Company as a Non-Employee Director shall be $110,000.

(ii) Board Meeting Fee ; Committee Meeting Fee; Other Assignments. No fee shall be payable for attendance in person or via telephone at a Board Meeting or Committee Meeting. A fee of $2,500 shall be paid when a member of the Board attends a meeting (other than a Board Meeting or Committee Meeting) or conducts business on behalf of the Company in his or her capacity as a Director.

(iii) Annual Retainer: Chair - Audit Committee. The Annual Retainer for service as Chair of the Audit Committee shall be $40,000

(iv) Annual Retainer: Member - Audit Committee. The Annual Retainer for service as a member of the Audit Committee shall be $15,000.

(v) Annual Retainer: Chair - Compensation Committee. The Annual Retainer for service as Chair of the Compensation Committee shall be $40,000.

(vi) Annual Retainer: Member - Compensation Committee. The Annual Retainer for service as a member of the Compensation Committee shall be $15,000.

(vii) Annual Retainer: Chair -- Governance and Directors Nominating Committee. The Annual Retainer for service as Chair of the Governance and Directors Nominating Committee shall be $20,000.

(viii) Annual Retainer: Member -Governance and Directors Nominating Committee. The Annual Retainer for service as a member of the Governance and Directors Nominating Committee shall be $12,500.

(ix) Annual Retainer: Chair - Any Committee of the Board other than the Audit Committee, the Compensation Committee or the Governance and Directors Nominating Committee. The Annual Retainer for service as the Chair of any committee of the Board other than the Audit Committee, the Compensation Committee or the Governance and Directors Nominating Committee shall be $10,000.

(x) Annual Retainer: Member - Any Committee of the Board other than the Audit Committee, the Compensation Committee or the Governance and Directors Nominating Committee. The Annual Retainer for service as a member of any committee of the Board other than the Audit Committee, the Compensation Committee or the Governance and Directors Nominating Committee shall be $7,500.

(xi) Stock Grants. Except as otherwise specifically provided below, this Paragraph 3(a)(xi) shall apply as of November 20 each Plan Year beginning after 2017.

(A) The Board shall grant Restricted Stock Units for Shares having a Fair Market Value on the date of grant of $185,000, rounded, if necessary, to the next higher whole Share, provided that with respect to each individual who first becomes a Non-Employee Director on or after January 1, 2018, the Board shall grant Restricted Stock Units for Shares determined as follows:

Date of Commencement of Service as a Non-Employee Director	Number of Shares Subject to Grant of Restricted Stock Units
After November 20 of a Plan Year and before the next following February 20	Shares having a Fair Market Value on the date of grant of $185,000
On or after February 20 of a Plan Year and before the next following May 20	Shares having a Fair Market Value on the date of grant of $138,750
On or after May 20 of a Plan Year and before the next following August 20	Shares having a Fair Market Value on the date of grant of $92,500
On or after August 20 of a Plan Year and before the next following November 20	Shares having a Fair Market Value on the date of grant of $46,250

Each Restricted Stock Unit shall (1) be fully and immediately vested on the date of grant, and (2) bear such other terms and conditions as shall be determined by the Board in its discretion.

(B) In the event that Shares are changed into or exchanged for a different number or kind of shares of stock or other securities of the Company, whether through merger, consolidation, reorganization, recapitalization, stock dividend, stock split-up or other substitution of securities of the Company, the number and class of shares of stock subject to the grant of Restricted Stock Units under the Plan shall be adjusted consistent with the adjustment made pursuant to the Restricted Stock Plan, and such adjustment shall be effective and binding for all purposes of this Plan.

(b) Payment Practices. Payments, grants and awards described in Paragraph 3(a) of the Plan shall be subject to the following payment practices:

(i) Except to the extent deferred under the Deferred Compensation Plan, Annual Retainer payments described in Paragraphs 3(a)(i), 3(a)(iii), 3(a)(iv), 3(a)(v), 3(a)(vi), 3(a)(vii), 3(a)(viii), 3(a)(ix) and 3(a)(x) are payable as soon as reasonably practicable following the close of each calendar quarter, in arrears. Payments shall be pro-rated for partial years of service as a Non-Employee Director or on a Committee of the Board, so that a Non-Employee Director shall be entitled to one-quarter of each Annual Retainer payment referenced in this Paragraph 3(b)(i) for each calendar quarter within which such Non-Employee Director has one or more days of service as a Non-Employee Director or as a member of a Committee of the Board, as applicable.

(ii) A Non-Employee Director may elect to receive up to 50% of the Annual Retainer amount described in Paragraph 3(a)(i) in the form of Shares issuable pursuant to a grant of fully-vested Restricted Stock Units under the Restricted Stock Plan. The number of Shares payable to a Non-Employee Director shall be determined based on the closing price of Shares on the last business day of each calendar quarter and rounded, if necessary, to the next higher whole Share.

(c) Special Rules and Payment Practices for Director Emeritus Compensation.

(i) Except as otherwise provided in Paragraph 3(c)(ii) and Paragraph 3(c)(iii), for the duration of an individual's service to the Company as a Director Emeritus, the Director Emeritus such shall be entitled to compensation on the same basis as a Non-Employee Director as described in Paragraph 3(a) and subject to the same payment practices as apply to a Non-Employee Director as described in Paragraph 3(b).

(ii) Paragraph 3(b)(iii), relating to a Non-Employee Director's elect to receive up to 50% of the Annual Retainer amount described in Paragraph 3(a)(i) in the form of Shares, shall not apply to a Director Emeritus. All Annual Retainer payments to a Director Emeritus shall be in the form of cash.

(iii) This Paragraph 3(c)(iii) shall apply to a Director Emeritus in lieu of the Stock Grant provisions of Paragraph 3(a)(xiii). On November 20, 2018 and each anniversary thereof (or the next following business day if November 20th is not a business day) during which the Director Emeritus is serving as such, the Company shall pay each Director Emeritus a single cash lump sum of $185,000.

4. ADMINISTRATION OF THE PLAN

The Plan shall be administered by the Board. Subject to the express terms and conditions set forth in the Plan, the Board shall have the power, from time to time, to interpret the Plan's provisions, prescribe, amend and rescind rules and regulations for the Plan, and make all other determinations necessary or advisable for the administration of the Plan. The determination of the Board in all matters as stated above shall be conclusive.

5. TAXES

The Company shall withhold the amount of any federal, state, local or other tax, charge or assessment attributable to the grant of any Award or lapse of restrictions under any Award as it may deem necessary or appropriate, in its sole discretion.

6. AMENDMENT AND TERMINATION

The Plan may be amended or terminated by the Board at any time. No accrued right to payment as determined under Paragraph 3 shall be affected by any such termination or amendment without the written consent of the affected Non-Employee Director.

7. EFFECTIVE DATE

The effective date of this amendment and restatement of the Plan is December 5, 2017. The original effective date of the Plan is November 18, 2002.

8. GOVERNING LAW

The Plan and all determinations made and actions taken pursuant to the Plan shall be governed in accordance with Pennsylvania law.

COMCAST CORPORATION

BY: /s/ David L. Cohen

ATTEST: /s/ Arthur R. Block

SCHEDULE I
COMCAST CORPORATION
NON-EMPLOYEE DIRECTOR COMPENSATION
EFFECTIVE AS OF DECEMBER 5, 2017

Director Annual Retainer	$110,000, subject to election to receive up to half in the form of Comcast Corporation Class A Common Stock
Board or Committee Meeting Fee	None A fee of $2,500 shall be paid when a member of the Board attends a meeting (other than a Board or Committee meeting) or conducts business on behalf of the Company in his or her capacity as a Director.
Audit Committee Annual Retainer - Chair	$40,000
Compensation Committee Annual Retainer - Chair	$40,000
Governance and Directors Nominating Committee Annual Retainer - Chair	$20,000
Other Committee Annual Retainer - Chair	$10,000
Audit Committee Annual Retainer - Member	$15,000
Compensation Committee Annual Retainer - Member	$15,000
Governance and Directors Nominating Committee Annual Retainer - Member	$12,500
Other Committee Annual Retainer - Member	$7,500
Annual Restricted Stock Unit Grant	Shares having a Fair Market Value on the date of grant of $185,000

Execution Copy

SECOND AMENDED AND RESTATED SHAREHOLDERS AGREEMENT

dated January 10, 2019

with effect from July 1, 2018 among

ATAIROS GROUP, INC.,
as the Company,

COMCAST AG HOLDINGS, LLC,
as a Shareholder,

COMCAST SPECTACOR VENTURES, LLC,

as a Shareholder,

ATAIROS PARTNERS, L.P.,
as a Shareholder,

ATAIROS MANAGEMENT, L.P.,

as the Manager, and

solely for purposes of the Comcast Provisions,
COMCAST CORPORATION

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SECOND AMENDED AND RESTATED SHAREHOLDERS AGREEMENT

SECOND AMENDED AND RESTATED SHAREHOLDERS AGREEMENT (this "**Agreement**") dated January 10, 2019 with effect from July 1, 2018 among (i) Atairos Group, Inc., a Cayman Islands exempted company (the "**Company**"), (ii) Comcast AG Holdings, LLC, a Delaware limited liability company ("**Comcast AG Shareholder**"), (iii) Comcast Spectacor Ventures, LLC, a Delaware limited liability company ("**Comcast Spectacor Shareholder**" and together with Comcast AG Shareholder referred to individually and collectively herein as "**Comcast Shareholder**"), Atairos Partners, L.P., a Cayman Islands exempted limited partnership ("**ManagementCo Shareholder**"), (v) Atairos Management, L.P., a Delaware limited partnership (the "**Manager**"), and (vi) solely for purposes of the Comcast Provisions, Comcast Corporation, a Pennsylvania corporation ("**Comcast**").

W I T N E S S E T H :

WHEREAS, as of November 24, 2015, and effective as of January 1, 2016, the Company, Comcast AG Shareholder, ManagementCo Shareholder, the Manager and Comcast (solely for purposes of the Comcast Provisions) entered into a Shareholders Agreement (the "**Original Agreement**"), pursuant to which on January 1, 2016, the Company issued to Comcast AG Shareholder and ManagementCo Shareholder Company Securities in the amounts set forth on Schedule I to the Original Agreement;

WHEREAS, the parties to the Original Agreement entered into the First Amendment dated September 15, 2016, the Second Amendment dated July 28, 2017 and the Third Amendment dated February 21, 2018;

WHEREAS, the Original Agreement was amended and restated in its entirety by the Amended and Restated Shareholders Agreement, dated as of March 31, 2018 (the "**First Amended Agreement**"), pursuant to which the Company issued to Comcast Spectacor Shareholder Company Securities as set forth on Schedule I to the First Amended Agreement; and

WHEREAS, the parties hereto now desire to amend and restate the First Amended Agreement in its entirety to amend certain provisions of the First Amended Agreement to govern the parties' rights, duties and obligations.

NOW, THEREFORE, in consideration of the covenants and agreements contained herein, the parties hereto agree as follows:

ARTICLE 1
Definitions

Section 1.01. *Definitions.*

(a) As used in this Agreement, the following terms have the following meanings:

"**Advisers Act**" means the U.S. Investment Advisers Act of 1940.

"**Affiliate**" means, with respect to any Person, any other Person directly or indirectly controlling, controlled by or under common control with such Person; *provided* that, for the avoidance of doubt, (i) neither Comcast Shareholder nor any of its Affiliates shall be deemed an "Affiliate" of any of the Company, ManagementCo Shareholder, the Manager or any of their respective Affiliates and (ii) none of the Company, ManagementCo Shareholder, the Manager or any of their respective Affiliates shall be deemed an "Affiliate" of Comcast Shareholder or any of its Affiliates; *provided*, *further*, that no Portfolio Company, Subsidiary of any Portfolio Company or Affiliate of any Portfolio Company which is controlled by such Portfolio Company shall be an Affiliate of the Company, ManagementCo Shareholder, the Manager or any of their respective Affiliates. For the purpose of this definition, the term "control" (including, with correlative meanings, the terms "controlling", "controlled by" and "under common control with"), as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise.

"**Alternative Investment Vehicle**" means any Person formed for the purpose of making any Investment in accordance with Section 2.02(b).

"**Applicable Law**" means, with respect to any Person, any transnational, domestic or foreign federal, state or local (statutory, common or otherwise) constitution, treaty, convention, ordinance, code, rule, regulation, order, injunction, judgment, decree, ruling or other similar requirement enacted, adopted, promulgated or applied by a Governmental Authority (including, for the avoidance of doubt, consent decrees, commitments, conditions and other similar obligations) that is binding upon or applicable to such Person.

"**Asset Ratio**" means, with respect to any repurchase of Shares in accordance with Section 8.05(g) at any time, the Class I-A AG Asset Ratio, the Class I-A Spectacor Asset Ratio, the Class I-B Asset Ratio or the Class II Asset Ratio, as the context may require.

"**Available Capital Commitment**" means, with respect to any Shareholder at any time, the excess, if any, of (a) such Shareholder's Capital Commitment at such time over (b) such Shareholder's aggregate Capital Contributions made prior to such time (including Capital Contributions to fund Company Expenses, but excluding Capital Contributions made by Comcast Shareholder to fund the Management Fee), subject to adjustment as provided in Section 6.03. The calculation prior to July 1, 2018 of each Shareholder's Available Capital Commitment shall utilize such Shareholder's Capital Commitment indicated on Schedule I to this Agreement as effective as of January 1, 2016 (but after giving effect to the admission of Comcast Spectacor Shareholder as a Shareholder) and the definition of "Available Capital Commitment" set forth in this Agreement as in effect at such time.

"**Available Commitment Percentage**" means, with respect to any Shareholder at any time, the percentage derived by dividing such Shareholder's Available Capital Commitment at such time by the aggregate amount of the Available Capital Commitments of all Shareholders at such time.

"**Board**" means the board of directors of the Company.

"**Business Day**" means any day except a Saturday, Sunday or other day on which commercial banks in New York City are authorized by Applicable Law to close.

"**Capital Commitment**" means, with respect to any Shareholder at any time, the amount specified as such Shareholder's "Capital Commitment" on, and subject to adjustment as provided in, Schedule I to this Agreement, which amount shall be equal to such Shareholder's Original Capital Commitment plus its Non-U.S. Capital Commitment. For the avoidance of doubt, the Capital Commitment of Comcast AG Shareholder set forth on Schedule I to the Original Agreement was reduced by the Capital Commitment of Comcast Spectacor Shareholder set forth on Schedule I to the First Amended Agreement.

"**Capital Contribution**" means, with respect to any Shareholder, the subscription price paid by such Shareholder for additional Class I Shares to be issued by the Company in respect of an Investment or Company Expense pursuant to Article 6, including, in the case of Comcast AG Shareholder, in respect of the Management Fee.

"**Carrying Value**" means, with respect to any asset of the Company other than money, such asset's adjusted basis for U.S. federal income tax purposes, except that:

(i) the initial Carrying Value of any asset contributed by a Shareholder to the Company shall be the Fair Market Value of such asset on the date of the contribution, as determined by the Manager in its reasonable discretion;

(ii) the Carrying Value of all assets of the Company may be adjusted to equal their respective Fair Market Values pursuant to Section 8.09;

(iii) as of the date on which any Company asset is distributed to a Shareholder in kind, the Carrying Value of such asset shall be adjusted to equal the Fair Market Value of such asset on such date, as determined by the Manager in its reasonable discretion pursuant to Section 8.05(b);

(iv) the Carrying Value of an asset shall be adjusted by the Depreciation taken into account with respect to such asset for purposes of computing Profits and Losses, rather than by the depreciation, amortization or other cost recovery allowable with respect to such asset for U.S. federal income tax purposes; and

(v) the Carrying Value of the Company's assets shall be increased (or decreased) to reflect any adjustments to the adjusted basis of such assets pursuant to Section 734(b) of the Code or Section 743(b) of the Code, but only to the extent that such adjustments are taken into account in determining Capital Account balances pursuant to

U.S. Treasury Regulations Section 1.704-1(b)(2)(iv)*(m)* and clause (vi) of the definition of "Profits" and "Losses."

"**Cause Event**" means the occurrence of any of the following events: (i) a material breach by the Company, ManagementCo Shareholder or the Manager of its obligations under this Agreement or by the Manager of its obligations under the Management Agreement and, in either case, such breach results in a material adverse effect on the Company and such breach (if capable of being cured) has not been cured prior to the 10th Business Day following written notice thereof delivered to the Company, ManagementCo Shareholder or the Manager, as applicable, by Comcast, (ii) the felony conviction (including by plea of no contest) of the Initial CEO, any successor chief executive officer of the Manager or the Company, ManagementCo Shareholder or the Manager to a crime constituting fraud or embezzlement, (iii) any act or omission by the Initial CEO, any successor chief executive officer of the Manager or the Company, ManagementCo Shareholder or the Manager that results in a material adverse effect on the Company and which act or omission constitutes fraud, willful misconduct or recklessness, or (iv) a judgment or order (other than any temporary, preliminary or similar injunction, judgment or order) issued by a court or governmental body of competent jurisdiction finding that ManagementCo Shareholder, the Manager, the Initial CEO or any successor chief executive officer of the Manager or the Company has engaged in willful misconduct, fraud or recklessness in connection with the performance of such Person's duties to the Company.

"**Class I Shareholder**" means a Shareholder holding Class I Shares.

"**Class I Shares**" means Class I-A Shares and Class I-B Shares.

"**Class I-A AG Asset Ratio**" means, with respect to any repurchase of Shares from Comcast AG Shareholder in accordance with Section 8.05(g) at any time, the percentage determined by dividing (i) the aggregate Distribution Tier Return Amounts for Comcast AG Shareholder in respect of the distribution event giving rise to such repurchase, by (ii) the aggregate amounts that would be distributable to Comcast AG Shareholder at such time based on a hypothetical liquidation of the Company as if all Company Assets were sold at the Quarterly Value thereof.

"**Class I-A Shareholder**" means a Shareholder holding Class I-A Shares.

"**Class I-A Shares**" means the Class I-A Shares, par value US$0.0001 per share, of the Company.

"**Class I-A Spectacor Asset Ratio**" means, with respect to any repurchase of Shares from Comcast Spectacor Shareholder in accordance with Section 8.05(g) at any time, the percentage determined by dividing (i) the aggregate Distribution Tier Return Amounts for Comcast Spectacor Shareholder in respect of the distribution event giving rise to such repurchase, by (ii) the aggregate amounts that would be distributable to Comcast Spectacor Shareholder at such time based on a hypothetical liquidation of the Company as if all Company Assets were sold at the Quarterly Value thereof.

“**Class I-B Asset Ratio**” means, with respect to any repurchase of Class I-B Shares from ManagementCo Shareholder in accordance with Section 8.05(g) at any time, the percentage determined by dividing (i) the aggregate Distribution Tier Return Amounts for Class I-B Shares in respect of the distribution event giving rise to such repurchase, by (ii) the aggregate amounts that would be distributable to ManagementCo Shareholder in respect of its Class I-B Shares at such time based on a hypothetical liquidation of the Company as if all Company Assets were sold at the Quarterly Value thereof.

“**Class I-B Shares**” means the Class I-B Shares, par value US$0.0001 per share, of the Company.

“**Class II Asset Ratio**” means, with respect to any repurchase of Class II Shares from ManagementCo Shareholder in accordance with Section 8.05(g) at any time, the percentage determined by dividing (i) the aggregate Distribution Tier Return Amounts for Class II Shares in respect of the distribution event giving rise to such repurchase, by (ii) the aggregate amounts that would be distributable to ManagementCo Shareholder in respect of its Class II Shares at such time based on a hypothetical liquidation of the Company as if all Company Assets were sold at the Quarterly Value thereof .

“**Class II Distribution**” means any amount distributed to the holder of Class II Shares pursuant to Section 8.02(e)(ii), 8.02(f) or 8.02(g) or (to the extent attributable to Section 8.02(e)(ii), 8.02(f) or 8.02(g)), Section 11.01(b).

“**Class II Shareholder**” means the Shareholder holding Class II Shares.

“**Class II Shares**” means the Class II Shares, par value US$0.0001 per share, of the Company.

“**Code**” means the U.S. Internal Revenue Code of 1986.

“**Comcast Core Business**” means a core business of Comcast and its Subsidiaries; *provided* that no business set forth on Schedule II shall constitute a “Comcast Core Business” (it being understood that the businesses set forth on Schedule II are provided merely as examples of businesses that are not Comcast Core Businesses, and the failure to include any business on Schedule II does not create any implication that any such omitted business is, or is not, a Comcast Core Business).

“**Comcast Indemnified Party**” means any of the following parties: (i) each Comcast Shareholder, (ii) each Affiliate of each Comcast Shareholder, (iii) each partner, stockholder, member, director, officer, fiduciary, manager, controlling Person, employee and agent of each Comcast Shareholder or any Affiliate of each Comcast Shareholder and (iv) each partner, stockholder, member, director, officer, fiduciary, manager, controlling Person, employee and agent of any Person specified in clause (iii) of this sentence; *provided*, *however*, that any stockholder of Comcast shall not be a Comcast Indemnified Party if such Person would be a Comcast Indemnified Party solely by reason of such Person’s status as a stockholder of Comcast.

“**Comcast Investment Vehicle**” means any Alternative Investment Vehicle in which Comcast Shareholder (or any Affiliate thereof) participates or owns an interest, directly or indirectly.

“**Comcast Permitted Affiliate Transferee**” means Comcast, any Comcast Successor or any Subsidiary of Comcast or any Comcast Successor.

“**Comcast Permitted Spin Transferee**” means any Person to whom Company Securities are Transferred in connection with a Comcast Spin Transaction; *provided* that such Person has, and demonstrates to the reasonable satisfaction of the Manager, the financial wherewithal to honor (i) in the case of a Transfer of all of Comcast Shareholder’s Company Securities to such Person, Comcast Shareholder’s obligations under this Agreement and the Memorandum and Articles of Association or (ii) in the case of a Partial Spin Transfer, the obligations of Comcast Shareholder under this Agreement and the Memorandum and Articles of Association that are indirectly allocated to such Person pursuant to Section 5.03(c)(ii).

“**Comcast Permitted Transferee**” means a Comcast Permitted Affiliate Transferee or a Comcast Permitted Spin Transferee.

“**Comcast Provisions**” means Sections 10.03, 10.08, 10.09, 10.10 and 10.11 and Article 12.

“**Comcast Shareholder Rights and Obligations**” means all rights and obligations that apply to Comcast Shareholder under this Agreement and the Memorandum and Articles of Association.

“**Comcast Spin Transaction**” means a demerger, spinoff, splitoff or similar transaction involving the separation of any Comcast businesses by means of a distribution to Comcast shareholders.

“**Comcast Successor**” means any entity (i) into which Comcast merges, (ii) to which Comcast transfers all or substantially all of its assets or (iii) of which Comcast becomes a Subsidiary as part of a reorganization, restructuring or other transaction (or, if such entity has an ultimate parent company, the ultimate parent company of such entity).

“**Commencement Date**” means January 1, 2016 or such other date as may be mutually agreed by Comcast and the Manager.

“**Commitment Period**” means the period commencing on the Commencement Date and ending on the earlier to occur of (i) the close of business on the tenth anniversary of the Commencement Date (or, if such day is not a Business Day, the first Business Day following the tenth anniversary of the Commencement Date), subject to extension for up to two additional years in the sole discretion of the Manager by notice to each Shareholder, which notice may not be given earlier than the ninth anniversary of the Commencement Date or later than the nine year and nine month anniversary of the

Commencement Date; and (ii) the early termination of the Commitment Period pursuant to Section 6.01(c).

"**Communications Act**" means the U.S. Communications Act of 1934, together with the written orders, policies and decisions of the FCC.

"**Company Debt**" means the aggregate Debt of the Company and its Subsidiaries.

"**Company Debt Ratio**" means, as of any determination date, the ratio of (i) the Company Debt as of such date to (ii) the Unreturned Capital Amount as of such date.

"**Company Entities**" means (i) the Company, (ii) any Comcast Investment Vehicle, (iii) any Subsidiary of the Company or of any Comcast Investment Vehicle, (iv) any Flow-Through Portfolio Company and any of its Subsidiaries that is treated either as a partnership or a disregarded entity for U.S. federal income tax purposes and (v) any Consolidated Portfolio Company and any of its Subsidiaries.

"**Company Expenses Drawdown Amount**" means the aggregate Capital Contributions to be made by the Shareholders with respect to Company Expenses in connection with any draw of Capital Contributions pursuant to Article 6.

"**Company Securities**" means (i) the Class I-A Shares, (ii) the Class I-B Shares and (iii) the Class II Shares.

"**Consolidated Portfolio Company**" means a Controlled Portfolio Company that is not a Flow-Through Portfolio Company and is required by Applicable Law to be included in a combined, consolidated or unitary tax return with Comcast or any of its Affiliates.

"**Controlled Portfolio Company**" means a Portfolio Company if the Company, directly or through one or more Subsidiaries, owns securities having a majority of the voting power in electing the board of directors (or analogous governing body) of such Portfolio Company or, in the case of a partnership, limited liability company or other similar entity that is not governed by a board of managers (or analogous governing body), the Company, directly or through one or more Subsidiaries, serves as general partner or managing member of such Portfolio Company.

"**Convertible Security**" means any security of a Portfolio Company that is exercisable or exchangeable for, or convertible into, any other security of such Portfolio Company, including warrants, options, convertible or exchangeable securities and other similar securities.

"**Debt**" means, with respect to any Person, (i) all indebtedness of such Person for borrowed money; (ii) all obligations of such Person evidenced by bonds, debentures, notes or other similar instruments; (iii) all obligations of such Person in respect of letters of credit, bankers' acceptances or other similar instruments; (iv) all obligations of such Person to pay the deferred and unpaid purchase price of property or services which are recorded as liabilities under GAAP, excluding trade payables arising in the ordinary

course of business; (v) all obligations of such Person as lessee under any lease of any property which, in conformity with GAAP, is required to be capitalized on the balance sheet of such Person; and (vi) all obligations of the types described in the preceding clauses (i) through (v) of other Persons guaranteed by such Person or secured by a lien on any asset of such Person, whether or not such obligation is assumed by such Person.

"**Depreciation**" means, with respect to any asset of the Company, the depreciation, amortization or other cost recovery deduction, if any, allowable with respect to such asset for U.S. federal income tax purposes, except that if the Carrying Value of such asset differs from such asset's adjusted basis for U.S. federal income tax purposes, any Depreciation with respect to such asset shall be computed pursuant to U.S. Treasury Regulations Section 1.704-1(b)(2)(iv)(g) by reference to the Carrying Value of such asset, rather than by reference to the adjusted tax basis of such asset.

"**Disposition**" means any sale, exchange, transfer or other disposition of all or any portion of any Portfolio Company Securities.

"**Distribution Tier**" means each of Sections 8.02(a), 8.02(b), 8.02(c), 8.02(d), 8.02(e), 8.02(f) and 8.02(g).

"**Eligible ROFO Holder**" means, with respect to any Person, that one or more Eligible ROFO Persons collectively, directly or indirectly, (i) own equity securities issued by such Person that carry voting power representing at least 20% of the aggregate voting power of all classes of equity securities issued by such Person having the right to elect the board of directors (or analogous governing body) of such Person or (ii) otherwise exercise substantial influence over such Person (through the ownership of voting securities, by contract or otherwise).

"**Eligible ROFO Persons**" means (i) Brian L. Roberts, (ii) any lineal descendant or ancestor or sibling (by birth or adoption) of Brian L. Roberts, (iii) any spouse or former spouse of any of the foregoing, (iv) any legal representative or estate of any of the foregoing, (v) any trust (including a revocable trust, declaration trust or a voting trust), guardianship or custodianship for the benefit of any of the foregoing, and (vi) any corporation, private charitable foundation or other organization controlled by any of the foregoing (other than Comcast, the Comcast Permitted Spin Transferee or any of their respective controlled Affiliates).

"**Excess Transaction Fees**" means any Transaction Fees received by the Company or the Manager or any of its Affiliates that exceed the amount of subsequently payable Management Fees pursuant to the Management Agreement.

"**Exchange Act**" means the U.S. Securities Exchange Act of 1934.

"**Fair Market Value**" means, with respect to any assets, as of the relevant date of determination, the price that a willing buyer, not Affiliated with the seller and under no compulsion to buy, would pay in an arms-length transaction for such assets to a willing seller, under no compulsion to sell.

"**FCC**" means the U.S. Federal Communications Commission.

"**Flow-Through Portfolio Company**" means a Controlled Portfolio Company treated either as a partnership or a disregarded entity for U.S. federal income tax purposes.

"**GAAP**" means generally accepted accounting principles in the United States.

"**Governmental Authority**" means any transnational, domestic or foreign federal, state or local governmental, regulatory or administrative authority, department, court, agency or official, including any political subdivision thereof.

"**Governmental Order**" means any order, decree, injunction or judgment of any Governmental Authority.

"**Indemnified Party**" means any Comcast Indemnified Party and any Manager Indemnified Party.

"**Initial CEO**" means Michael J. Angelakis.

"**Initial CEO Event**" means an event that shall be deemed to have occurred if the Initial CEO: (i) is no longer dedicated on a substantially full-time basis to the Company's business; (ii) is not the Manager's or the Company's chief executive officer or lead investment professional; (iii) (a) does not control, directly or indirectly, the general partner of the Manager or does not hold, directly or indirectly, a majority of the voting power of the equity interests of the Manager entitled to vote generally, or (b) does not control, directly or indirectly, the general partner of ManagementCo Shareholder or does not hold, directly or indirectly, a majority of the voting power of the equity interests of ManagementCo Shareholder entitled to vote generally; or (iv) does not, together with any estate planning or similar vehicles of the Initial CEO, hold, directly or indirectly, economic interests of ManagementCo Shareholder representing the right to receive at least 20% of the proceeds of Class II Distributions.

"**Investment**" means an investment by the Company or an Alternative Investment Vehicle in any equity securities or equity-related securities (including preferred equity, convertible debt or similar securities) or debt securities or in other economic rights (including pursuant to any profit sharing, revenue sharing or financing arrangement); *provided*, *however*, any investment of cash pursuant to Section 2.03 shall not constitute an Investment.

"**Investment Drawdown Amount**" means the aggregate Capital Contributions to be made by the Shareholders with respect to an Investment in connection with any draw of Capital Contributions pursuant to Article 6.

"**Investment in the United States**" means an Investment with a principal place of business located in the United States or with respect to which the majority of its revenue from operations is derived in the United States, as determined at the time such Investment is made.

"**IRR**" means, with respect to any Capital Contributions and issuance of Class I Shares, an internal rate of return on such Capital Contribution calculated in accordance with accepted financial principles, compounded annually. The following rules shall be used in calculating an IRR:

(i) such calculation shall take into account each Capital Contribution at the time such Capital Contribution was made; and

(ii) such calculation shall take into account (A) the distribution in question at the time such distribution is made or to be made and (B) each prior distribution in respect of the Class I Shares issued pursuant to the relevant Capital Contribution at the time such prior distribution was made.

"**Letter Agreement**" means the Letter Agreement dated the date of the Original Agreement among the Initial CEO, Comcast, the Company, Comcast AG Shareholder, ManagementCo Shareholder and the Manager, as in effect from time to time.

"**Management Agreement**" means the Management Agreement between the Manager and the Company entered into on the date of the Original Agreement, as in effect from time to time.

"**Management Fee**" means:

(i) with respect to calendar years 2016 and 2017, an annual management fee equal to $40,000,000 for calendar year 2016 and increased for calendar year 2017 based on the percentage increase in the U.S. Consumer Price Index for all Urban Consumers (as published by the U.S. Department of Labor - Bureau of Labor Statistics) ("**CPI**") for the prior 12 months;
(ii) with respect to the first and second quarters of calendar year 2018, an annual management fee equal to the management fee for calendar year 2017, increased as of January 1, 2018 based on the CPI for the prior 12 months;
(iii) with respect to the third and fourth quarters of calendar year 2018, an annual management fee equal to the management fee for the second quarter of calendar year 2018 calculated in accordance with the foregoing clause (ii), plus $1,250,000 per quarter (the "**Step-Up**");
(iv) with respect to calendar year 2019, an annual management fee equal to the management fee for calendar year 2018, calculated as if the Step-Up had applied for all of calendar year 2018 (*i.e.*, as if the management fee for 2018 has been increased by $5,000,000), increased as of January 1, 2019 based on the percentage increase in the CPI for the prior 12 months; and
(v) with respect to each subsequent calendar year, an annual management equal to the management fee for the immediately preceding calendar year,
increased as of January 1 of such subsequent calendar year based on the percentage increase in the CPI for the prior 12 months,

in each case payable quarterly in advance on the first Business Day of each Quarterly Period, except as provided under the terms of any Management Fee Payment Agreement then in effect.

If the Manager fails to maintain an office outside of the United States at any time after January 1, 2019 (either because the office has not opened or is subsequently closed), the then-applicable Management Fee amount will be reduced by an amount equal to $5,000,000 plus the aggregate amount of any increases calculated in accordance with clause (iv) or (v) of the immediately preceding sentence attributable to the additional $5,000,000, as calculated by the Manager in its reasonable discretion. The terms of any Management Fee Payment Agreement shall not alter the calculation of the amount of the Management Fee in respect of any period.

"**Management Fee Payment Agreement**" means any agreement entered into between the Company and the Manager concerning the terms of the payment of the Management Fee, which agreement may not accelerate the payment of the Management Fee.

"**ManagementCo Shareholder Partnership Agreement**" means the Amended and Restated Agreement of Exempted Limited Partnership of ManagementCo Shareholder, as in effect from time to time.

"**ManagementCo Shareholder Permitted Transferee**" means any controlled Affiliate of the Initial CEO.

"**Manager Indemnified Party**" means any of the following parties: (i) each director of the Board, (ii) the Manager, (iii) ManagementCo Shareholder (including when acting in the capacity as the Tax Matters Partner or the Partnership Representative), (iv) each Affiliate of the Manager or ManagementCo Shareholder, (v) each partner, stockholder, member, director, officer, fiduciary, manager, controlling Person, employee and agent of the Manager, ManagementCo Shareholder or any Affiliate of the Manager or ManagementCo Shareholder, including the Designated Individual, and (vi) each partner, stockholder, member, director, officer, fiduciary, manager, controlling Person, employee and agent of any Person specified in clause (v) of this sentence.

"**Marketable Securities**" mean Publicly Traded Securities that are not subject to material legal or contractual restrictions on transferability, including any volume limitations under Rule 144 of the Securities Act.

"**Memorandum and Articles of Association**" means the Memorandum and Articles of Association of the Company.

"**Non-Recourse**" means, with respect to any Debt and any Person, that (i) no portion of such Debt is guaranteed by such Person or any of its Subsidiaries, directly or

indirectly, contingently or otherwise, (ii) no portion of such Debt is recourse to or obligates such Person or any of its Subsidiaries in any way, directly or indirectly, contingently or otherwise, (iii) no portion of such Debt subjects any property or asset of such Person or any of its Subsidiaries, directly or indirectly, contingently or otherwise, to the satisfaction thereof and (iv) neither such Person nor any of its Subsidiaries has any obligation to maintain or preserve its financial condition or achieve any levels of operating results with respect to such Debt; *provided*, *however*, that for the avoidance of doubt, Company Debt and Debt of any Portfolio Company or any Subsidiaries of any Portfolio Company shall not fail to satisfy the conditions to being Non-Recourse with respect to Comcast set forth in clause (iii) solely by reason of the fact that such Debt or the satisfaction thereof may reduce the value of any Company Securities held by the Comcast Shareholder.

"**Non-U.S. Capital Commitment**" means (i) with respect to Comcast Shareholder, the additional $1,000,000,000 capital commitment accepted with an effective date of July 1, 2018 and (ii) with respect to ManagementCo Shareholder, the additional $10,000,000 capital commitment accepted with an effective date of July 1, 2018. Notwithstanding anything to the contrary in this Agreement, (a) if the Manager fails to maintain an office outside of the United States at any time after January 1, 2019 (either because the office has not opened or is subsequently closed), the portion of the Non-U.S. Capital Commitment of each Shareholder that has not been called pursuant to a Drawdown Notice prior to such time will be canceled and (b) any Investment that is not an Investment in the United States that is made following the date of this Amendment (notwithstanding if it is made prior to July 1, 2018) will be deemed to have been funded utilizing the Non-U.S. Capital Commitments.

"**Non-U.S. Law**" means any Applicable Law, other than a U.S. Law.

"**Original Capital Commitment**" means, with respect to each of Comcast Shareholder and Management Co Shareholder, the amount of its respective Capital Commitment set forth on Schedule I to this Agreement as effective as of January 1, 2016.

"**Partnership Audit Reform Rules**" means the amendments to Chapter 63, Subchapter C of the Code as promulgated under Section 1101(c)(1) of the "Bipartisan Budget Act of 2015."

"**Person**" means an individual, corporation, limited liability company, partnership, association, trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

"**Portfolio Company**" means, with respect to any Investment, any Person that is the issuer of any equity securities or equity-related securities (including preferred equity, convertible debt or similar securities) or debt securities or that has granted the other economic rights that represent such Investment. For the avoidance of doubt, in the event the Company makes any Investment through a holding company formed for the purpose of consummating such Investment and one or more third parties (including members of

management or other investors) hold interests in such holding company, such holding company shall be the Portfolio Company for purposes of such Investment.

"**Portfolio Company Securities**" means any equity securities or equity-related securities (including preferred equity, convertible debt or similar securities) or debt securities that are issued by a Portfolio Company or other economic rights with respect to a Portfolio Company.

"**Priority Return**" means, with respect to any Shareholder in connection with any determination pursuant to Section 8.02 or Section 11.02, the dollar amount necessary to be distributed to such Shareholder at such time so that, with respect to the relevant Capital Contributions (in the case of Section 8.02) or with respect to each Capital Contribution (in the case of Section 11.02) made by such Shareholder, such Shareholder receives or has received at such time aggregate distributions (after giving effect to all prior distributions and the distribution in question) resulting in an IRR on such Capital Contribution of 2%.

"**Proceeds**" means, with respect to any Investment, without duplication, (i) the cash and non-cash proceeds received by the Company from any Disposition of such Investment and (ii) any dividends, interest or other distributions, and any other proceeds or other income, received in connection with such Investment.

"**Profits**" and "**Losses**" means, for each fiscal period of the Company, the net income or net loss of the Company for such period, determined in accordance with U.S. federal income tax accounting principles, with the following adjustments (without duplication):

(i) any income of the Company that is exempt from U.S. federal income tax shall be included as income;

(ii) any expenditures of the Company described in Section 705(a)(2)(B) of the Code (or treated as expenditures described in Section 705(a)(2)(B) of the Code pursuant to U.S. Treasury Regulations Section 1.704-l(b)(2)(iv)*(i)*) shall be treated as current expenses;

(iii) if the Carrying Value of any Company asset is adjusted pursuant to clause (ii) or clause (iii) of the definition of "Carrying Value," the amount of such adjustment shall be taken into account as gain (if the adjustment increases the Carrying Value of the asset) or loss (if the adjustment reduces the Carrying Value of the asset) from the sale of such asset for purposes of computing Profits or Losses;

(iv) if the Carrying Value of any Company asset differs from such asset's adjusted basis for U.S. federal income tax purposes, gain or loss resulting from any disposition of such asset shall be computed by reference to such asset's Carrying Value (as of the date of disposition), rather than by reference to such asset's adjusted basis for U.S. federal income tax purposes;

(v) for purposes of computing Profits or Losses, Depreciation shall be taken into account instead of the depreciation, amortization and other cost recovery deductions, if any, allowable for U.S. federal income tax purposes;

(vi) to the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Section 734(b) of the Code or Section 743(b) of the Code is required, pursuant to U.S. Treasury Regulations Section 1.704-l(b)(2)(iv)*(m)*, to be taken into account in determining Capital Accounts, such adjustment shall be taken into account as gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases the basis of the asset) from the disposition of such asset for purposes of computing Profits or Losses; and

(vii) items of income, gain, loss and deduction allocated under Sections 8.07(a) and 8.08 shall not be taken into account in computing Profits or Losses.

"**Publicly Traded Securities**" means securities that are traded on a securities exchange, reported through the U.S. National Association of Securities Dealers Automated Quotation System or comparable established non-U.S. over-the-counter trading system or otherwise traded over-the-counter for which quotations of market prices are readily available.

"**Quarterly Period**" means (i) the short period, if any, commencing on the Commencement Date and ending on the next succeeding day that is the last day of a calendar quarter, (ii) each full calendar quarter thereafter prior to the occurrence of a Wind-Up Event and (iii) the short period, if any, commencing on the first day of the calendar quarter immediately following the last such full calendar quarter and ending on the day of the occurrence of a Wind-Up Event.

"**Quarterly Value**" means, as of any determination date, with respect to any Investment or other Company Asset, the value of such Investment or other Company Asset as reflected in the most recent quarterly financial statements of the Company and its consolidated Subsidiaries prepared and delivered to each Shareholder in accordance with Section 10.02(a)(ii). In the event the most recent quarterly financial statements of the Company and its consolidated Subsidiaries referred to in the immediately preceding sentence do not include valuations of Investments or other Company Assets, the Company shall cause to be prepared financial statements for such quarter which include such valuations on the same basis as if the Company were treated as an "investment company" for purposes of preparing financial statements in accordance with GAAP, and the immediately preceding sentence shall be deemed to refer to such financial statements in lieu of the most recent quarterly financial statements prepared and delivered to each Shareholder in accordance with Section 10.02(a)(ii). In the case of any Investment or other Company Asset acquired after the date of the applicable quarter end of the applicable financial statements, "**Quarterly Value"** shall mean the cost of such Investment or other Company Asset (or, in the case of any Company Asset consisting of cash, the amount of such cash).

“**Regulated Investment**” means an Investment in a Portfolio Company that directly or indirectly holds an interest in any (i) broadcast or wireless radio service license issued by the FCC, (ii) daily newspaper in the United States, (iii) multichannel video programming distributor or online video distributor in the United States, (iv) provider of broadband internet access services in the United States, (v) video programmer in the United States, (vi) other business subject to regulation by U.S. state public utility commissions, local franchise authorities or other similar U.S. state or local regulatory authorities, (vii) any other business that is subject to regulation by the FCC at the time of the relevant determination and (viii) business of a type described in the preceding clauses (i) through (vii) but operated outside of the United States and subject to regulation under Non-U.S. Law comparable to the regulation under Relevant Law of any business of a type described in the preceding clauses (i) through (vii) in the United States.

“**Relevant Law**” means (i) the Communications Act, (ii) Applicable Law enacted, adopted, promulgated or applied by the FCC, (iii) U.S. Law regarding antitrust and (iv) Applicable Law enacted, adopted, promulgated or applied by a U.S. state or local Governmental Authority.

“**Repurchase Class**” means (i) with respect to amounts otherwise distributable to holders of Class I Shares in accordance with Sections 8.02(a), (b), (c), (d), (e)(i), (f) and (g), (x) the Class I-A Shares held by Comcast Spectacor Shareholder, in the case of amounts otherwise distributable to Comcast Spectacor Shareholder, (y) the Class I-A Shares held by Comcast AG Shareholder, in the case of amounts otherwise distributable to Comcast AG Shareholder and (z) the Class I-B Shares, in the case of amounts otherwise distributable with respect to the Class I-B Shares and (ii) with respect to amounts distributable to the holder of Class II Shares in accordance with Section 8.02(e)(ii), (f) and (g), the Class II Shares.

“**SEC**” means the U.S. Securities and Exchange Commission.

“**Securities Act**” means the U.S. Securities Act of 1933.

“**Shareholders**” means each Comcast Shareholder, ManagementCo Shareholder and any other Person that becomes a “Shareholder” in accordance with the terms hereof and the Memorandum and Articles of Association.

“**Spectra**” means Spectra Holdco, LLC.

“**Spectra Agreement**” means the Acquisition Agreement entered into among the Company, ManagementCo Shareholder, Comcast Spectacor Shareholder and Comcast, relating to the purchase and sale of Units of Spectra, dated as of February 15, 2018.

“**Subsidiary**” means, with respect to the Company or any other Person, any Person of which the Company (or such other Person) owns securities having a majority of the voting power in electing the board of directors (or analogous governing body) directly or through one or more Subsidiaries or, in the case of a partnership, limited liability

company or other similar entity that is not governed by a board of managers (or analogous governing body), any Person of which the Company (or such other Person) or any Subsidiary serves as general partner or managing member. The term "Subsidiary" as used herein with respect to the Company, the ManagementCo Shareholder, the Manager and any of their respective Affiliates shall exclude each of the Portfolio Companies and each of the Subsidiaries of the Portfolio Companies.

"**Tax Attribute**" means any net operating loss or net capital loss.

"**Tax Quarter**" means any of the following calendar periods: (i) January 1 to March 31, (ii) April 1 to June 30, (iii) July 1 to September 30, and (iv) October 1 to December 31.

"**Tax Rate**" means (i) with respect to income treated as net capital gain and "qualified dividend income," the highest blended U.S. federal, state and local income tax rate applicable to such type of gain or income, and (ii) with respect to all other income and gain, the highest blended U.S. federal, state and local income tax rate applicable to ordinary income (including the Medicare Contribution tax on net investment income), in each case, taking into account the tax rate applicable in the year in which such distribution or allocation is made, assuming that the taxpayer in question is (a) an individual resident in New York, New York, (b) fully subject to the alternative minimum tax rates and rules and taking into account the deductibility of state and local taxes for U.S. federal income tax purposes, including any limitations on the deductibility thereof.

"**Temporary Cash Funds**" shall mean a reserve that is established by the Company, in its reasonable discretion, to facilitate the payment of Company Expenses or the purchase price of Investments.

"**Transaction Fees**" means, with respect to any Investment or proposed Investment, whether paid in the form of cash or securities, (i) any fees or amounts that are paid to the Company, the Manager or any of its Affiliates by any Person in connection with the termination, cancellation or abandonment of such proposed Investment, including "break-up" or "topping" fees, (ii) any fees or amounts that are paid to the Company, the Manager or any of its Affiliates as a "commitment fee" with respect to commitments of the Company's capital with respect to such proposed Investment, (iii) any organization or success fees received by the Company, the Manager or any of its Affiliates in connection with the making of such proposed Investment or the Disposition of any Investment (including any accelerated advisory, monitoring, consulting or other similar fees), (iv) any periodic advisory, monitoring, consulting or other similar fees charged by the Manager or any of its Affiliates to any Portfolio Company or any Subsidiary of such Portfolio Company, or (v) any fees or amounts received by Affiliates or employees of the Manager or any of its Affiliates acting as a director or in a similar capacity for any Portfolio Company; *provided* that "Transaction Fees" received by the Manager or any of its Affiliates shall not include any reimbursement by actual or potential Portfolio Companies of out-of-pocket expenses incurred by the Manager or any of its Affiliates (*e.g.*, due diligence, legal, accounting, investment banking and similar

expenses incurred in connection with any actual or prospective transactions, travel expenses associated with attending board meetings and otherwise conducting investment oversight, etc.); and *provided*, *further*, that "Transaction Fees" shall not include any compensation referred to in Section 4.02(b).

"**Transfer**" means, with respect to any Company Securities or other assets, (i) when used as a verb, to sell, assign, dispose of, exchange, pledge, encumber, hypothecate or otherwise transfer such Company Securities or other assets or any participation or interest therein, whether directly or indirectly (including pursuant to a derivative transaction), or agree or commit to do any of the foregoing and (ii) when used as a noun, a direct or indirect sale, assignment, disposition, exchange, pledge, encumbrance, hypothecation, or other transfer of such Company Securities or other assets or any participation or interest therein, whether directly or indirectly (including pursuant to a derivative transaction), or any agreement or commitment to do any of the foregoing; *provided* that neither the issuance by Comcast or any Comcast Successor (or by the Comcast Permitted Spin Transferee or the ultimate parent company of the Comcast Permitted Spin Transferee), or, to the extent permitted by the ManagementCo Shareholder Partnership Agreement, ManagementCo Shareholder, of any equity securities or equity-related securities, nor the change in ownership of any outstanding equity securities or equity-related securities issued by Comcast or any Comcast Successor (or by the Comcast Permitted Spin Transferee or the ultimate parent company of the Comcast Permitted Spin Transferee), or, to the extent permitted by the ManagementCo Shareholder Partnership Agreement, ManagementCo Shareholder, shall constitute a Transfer by Comcast Shareholder (or the Comcast Permitted Spin Transferee) or ManagementCo Shareholder, as applicable, of any Company Securities; *provided*, *further*, that the pledge, encumbrance or hypothecation of Company Securities by Comcast Shareholder (or the Comcast Permitted Spin Transferee) in connection with the general pledge, encumbrance or hypothecation by Comcast or any Comcast Successor (or the Comcast Permitted Spin Transferee) of all or substantially all of its assets made in connection with a bona fide debt financing, or the Transfer of Company Securities upon the exercise of remedies in respect of any such pledge, encumbrance or hypothecation, shall not constitute a Transfer of any Company Securities; *and provided*, *further*, that the pledge, encumbrance or hypothecation of Company Securities (other than as prohibited under Section 10.17) by ManagementCo Shareholder in connection with the general pledge, encumbrance or hypothecation by ManagementCo Shareholder of all or substantially all of its assets made in connection with a bona fide debt financing, or the Transfer of Company Securities upon the exercise of remedies in respect of any such pledge, encumbrance or hypothecation, shall not constitute a Transfer of any Company Securities.

"**Unreturned Capital Amount**" means, with respect to Comcast Shareholder as of any determination date, the excess, if any, of (i) Comcast Shareholder's aggregate Capital Contributions as of such date (other than Capital Contributions made for the purpose of funding Company Expenses or the Management Fee) over (ii) the aggregate distributions to Comcast Shareholder pursuant to Sections 8.02 and 8.04 as of such date

(*provided*, *however*, that as used in the definition of Company Debt Ratio, this clause (ii) shall be deemed to refer only to the aggregate distributions to Comcast Shareholder pursuant to clauses (a), (b) and (e)(i) of Section 8.02, plus the aggregate distributions to Comcast Shareholder under Section 8.04 constituting an advance of distributions to which Comcast Shareholder is entitled under such clauses of Section 8.02). In the event there is no such excess as of any determination date, the Unreturned Capital Amount shall be deemed to be zero.

"**U.S. Law**" means any Applicable Law enacted, adopted, promulgated or applied by a U.S. federal, state or local Governmental Authority.

(b) Each of the following terms is defined in the Section set forth opposite such term:

Term	**Section**
Advisory Board	10.09
Agreement	Preamble
Capital Account	8.06
Cause Redemption	3.04(a)
Class II Maximum Amount	11.02(a)
Co-Investment Opportunity	10.07(a)
Comcast	Preamble
Comcast AG Shareholder	Preamble
Comcast Confidential Information	10.01(b)
Comcast Core Integrated Investment	4.01(f)
Comcast Core Non-Integrated Investment	4.01(g)
Comcast Guarantee	12.12(a)
Comcast ROFO Purchaser	9.01(b)
Comcast Shareholder	Preamble
Comcast Shareholder Obligations	12.12(a)
Comcast Spectacor Shareholder	Preamble
Company	Preamble
Company Assets	11.01(b)
Company Confidential Information	10.01(a)
Company Expenses	7.02(a)
Core Business Evaluation Material	4.03
Designated Individual	10.19(d)
Distributable Amounts	8.05(c)
Distribution Tier Return Amount	8.05(g)
DOJ Order	10.14
Drawdown Date	6.02(b)(iii)
Drawdown Notices	6.02(a)
FCC Order	10.14
First Amended Agreement	Preamble
Indemnified Liabilities	10.06(a)

Interim Clawback Amount	11.02(b)
Interim Clawback Date	11.02(b)
ManagementCo Shareholder	Preamble
Manager	Preamble
Manager Expenses	7.01
Offer	9.01(b)
Offer Notice	9.01(a)
Offer Period	9.01(b)
Offer Price	9.01(a)
Offered ROFO Assets	9.01(a)
Original Agreement	Recitals
Partial Spin Transfer	5.03(c)(ii)
Partnership Representative	10.19(d)
Qualifying Company Expenses	8.02(d)
Recap Dividends	8.03(c)
Regulatory Allocations	8.08(e)
Representatives	10.01(a)
ROFO Assets	9.01(a)
ROFO Rights	5.03(d)(i)(A)(1)
Surviving ROFO Rights Principle	5.03(d)(i)(A)(2)
Tax Matters Partner	10.19(d)
Tax Year	10.20
unrealized gain	8.02(e)(ii)
Upper Tier Indemnitor	10.06(d)
Wind-Up Event	11.01(a)(iv)

Section 1.02.*Other Definitional and Interpretative Provisions.* The words “hereof”, “herein” and “hereunder” and words of like import used in this Agreement shall refer to this Agreement as a whole and not to any particular provision of this Agreement. The captions herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof. References to Articles, Sections and Schedules are to Articles, Sections and Schedules of this Agreement unless otherwise specified. All Schedules annexed hereto or referred to herein are hereby incorporated in and made a part of this Agreement as if set forth in full herein. Any capitalized terms used in any Schedule but not otherwise defined therein, shall have the meaning as defined in this Agreement. Any singular term in this Agreement shall be deemed to include the plural, and any plural term the singular. Whenever the words “include”, “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation”, whether or not they are in fact followed by those words or words of like import. “Writing”, “written” and comparable terms refer to printing, typing and other means of reproducing words (including electronic media) in a visible form. References to any constitutional

document, agreement or contract are to that agreement or contract as amended, modified or supplemented from time to time in accordance with the terms hereof and thereof. References to any law are to that law as amended from time to time and include all rules and regulations promulgated thereunder. References to any Person include the successors and permitted assigns of that Person. References from or through any date mean, unless otherwise specified, from and including or through and including, respectively. References to Comcast Shareholder shall be deemed to refer to each of Comcast AG Shareholder and Comcast Spectacor Shareholder individually, or to Comcast AG Shareholder and Comcast Spectacor Shareholder collectively, as the context requires. The Manager shall have the power and authority, without the consent of any Shareholder, to interpret in good faith any provision of this Agreement to give effect to the intent of the provisions of Sections 6.02(c), (d) and (f), 8.05(f), 8.05(g) and 8.07(c).

ARTICLE 2

Purposes; Investments; Issuance of Company Securities

Section 2.01. Business Purpose. The business for which the Company has been established is (a) to identify potential Investments in public and private entities globally, in a range of industries and business sectors, (b) to acquire, hold and dispose of such Investments, (c) pending utilization or disbursement of funds of the Company, to invest such funds in accordance with the terms of this Agreement and (d) to enter into other financial or commercial arrangements with Comcast (including, potentially, the purchase of non-core assets) as may be agreed by the Company and Comcast from time to time. The Company shall have the power to do any and all acts necessary, appropriate, desirable, incidental or convenient to or for the furtherance of the purposes described in this Section 2.01 or otherwise as provided for in this Agreement.

Section 2.02. *Investments.*

(a) Any Investment may involve investing in one or more classes or series of securities issued by, or other economic rights granted by, a Portfolio Company. Subject to Section 2.02(b), any Investment shall be made by the Company directly or through one or more wholly owned Subsidiaries.

(b) In order to accommodate tax, legal, regulatory or similar considerations of the Company or any Shareholder or otherwise to facilitate the making of an Investment, the Manager may cause an Investment (or any portion thereof) to be made through an Alternative Investment Vehicle; *provided*, *however*, that the making of any Investment (or any portion thereof) through an Alternative Investment Vehicle shall be subject to the prior written consent of the applicable Comcast Shareholder, which consent shall not be unreasonably withheld. If any Investment is made through an Alternative Investment Vehicle, the parties will agree in good faith on such modifications to this Agreement, and enter into such other agreements, as are necessary to address such Investment, it being understood that, for all purposes hereof (including Section 8.02 and Article 11), any Investment made through an Alternative Investment Vehicle will be taken into account and treated as if such Investment were made through the Company.

(c) For purposes of this Agreement:

(i) all securities of a Portfolio Company of the same class or series and all other economic rights granted by a Portfolio Company that are similarly

comparable shall, in each case, be treated as a single "Investment," regardless of whether such securities or economic rights are acquired in a single transaction or a series of related or unrelated transactions;

(ii) subject to Section 2.02(c)(iii), different classes or series of securities of a Portfolio Company and other economic rights granted by a Portfolio Company that do not qualify for treatment as a single "Investment" under Section 2.02(c)(i) shall, in each case, be treated as separate "Investments", regardless of whether such securities or economic rights are acquired in a single transaction or a series of related or unrelated transactions; and

(iii) the securities issued upon exercise, exchange or conversion of any Convertible Securities shall constitute the same "Investment" as the "Investment" in such Convertible Securities.

Section 2.03. Temporary Investment of Funds. 2 The Company shall invest all cash held by the Company in accordance with the limitations set forth in, and in the interest bearing instruments or accounts specified in, Schedule III. The Company may amend Schedule III with the approval of Comcast Shareholder, such approval not to be unreasonably withheld or delayed. Cash held by the Company includes all amounts being held by the Company for future investment in Investments, payment of Company Expenses or distribution to the Shareholders.

Section 2.04. Original Issuance of Company Securities.

a. On the date of the Original Agreement, in consideration of the covenants and agreements set forth therein, the Company issued to Comcast AG Shareholder and ManagementCo Shareholder the number and class of Company Securities set forth opposite the names of such Persons on Schedule I to the Original Agreement. On the date of the First Amended Agreement, in consideration of the covenants and agreements set forth therein, the Company issued to Comcast Spectacor Shareholder the number and class of Company Securities set forth opposite the names of such Person on Schedule I to the First Amended Agreement.

b. Upon the making by any Shareholder of any Capital Contributions pursuant to this Agreement, the Company shall issue to such Shareholder a number of Class I Shares (which shall be Class I-A Shares if such Shareholder holds Class I-A Shares or Class I-B Shares if such Shareholder does not hold Class I-A Shares) equal to (i) the amount of the Capital Contribution made by such Shareholder *divided by* (ii) 1,000; *provided* that the first 100 Class I-A Shares and the first 100 Class I-B Shares that would otherwise be issued by the Company to each of Comcast AG Shareholder, Comcast Spectacor Shareholder and ManagementCo Shareholder, respectively, pursuant to this Section 2.04(b) shall be offset against the Class I-A Shares and Class I-B Shares issued to such Persons on the respective date their admission as a Shareholder of the Company.

c. Each issuance of Shares pursuant to the provisions of this Agreement shall be recorded in the Company's register of members. All issued Company Securities shall be uncertificated, unless a certificate is required by Applicable Law.

ARTICLE 3

Management of the Company; the Manager

Section 3.01. *Management Generally.*

a. Subject to Section 3.01(b), the power to direct or cause the direction of the management and policies of the Company shall be vested exclusively in the Board. Any references in this Agreement to a determination made by, or the judgment of, the Company shall be deemed to refer to a determination made by, or the judgment of, the Board, respectively. The Shareholders shall have no part in the management or control of the Company and shall have no authority or right to act on behalf of the Company in connection with any matter.

b. Subject to any limitations under Applicable Law, the Board may appoint one or more officers of the Company (the "**Officers**") and delegate to any Officer such authority as the Board may determine. To the extent any such delegated authority would otherwise be an authority of the Board under Applicable Law or this Agreement, any determination made by, or the judgment of, the Officer exercising such authority in accordance with such delegation shall be deemed to be a determination made by, or the judgment of, the Board. The Board may remove any Officer at any time with or without cause.

c. Unless explicitly designated as such, the Officers are not members of the Board. One individual may hold more than one office. Each Officer shall hold his or her office until his or her successor is appointed or until his or her earlier resignation, removal, incapacity or death. Any Officer may resign by delivering his or her written resignation to the Company, and such resignation shall be effective upon receipt unless it is specified to be effective at such other time or upon the happening of some event.

d. No Person dealing with any Officer shall be required to determine such Officer's authority to make any commitment or undertaking on behalf of the Company or to determine any fact or circumstance bearing upon the existence of the authority of such Officer.

Section 3.02. *Memorandum and Articles of Association Provisions*. Each Shareholder agrees to vote all of its Company Securities or execute proxies or written consents, as the case may be, and to take all other actions necessary, to ensure that the Memorandum and Articles of Association (i) facilitate, and do not at any time conflict with, any provision of this Agreement and (ii) permit each Shareholder to receive the benefits to which each such Shareholder is entitled under this Agreement.

Section 3.03. The Manager. 2 To the fullest extent permitted by Cayman law, the Board shall have the right to delegate management and conduct of the business of the Company to another Person designated to act as the manager of the Company. To the extent of any such delegation, any references in this Agreement to a determination made by, or the judgment of, the Company or the Board shall be deemed to refer to a determination made by, or the judgment of, such manager, respectively. Without limiting

the foregoing, on the date of the Original Agreement, the Company entered into the Management Agreement with the Manager pursuant to which the Company appointed the Manager to act as the manager of the Company to the extent contemplated by the Management Agreement, and as of the date hereof the Manager continues to act as the manager of the Company to the extent so contemplated. In the event that, at any time, the Manager is not serving as manager of the Company, any references in this Agreement to a determination made by, or the judgment of, the Manager shall be deemed to refer to a determination made by, or the judgment of, the Board or such other Person to which the Board has delegated such determination or judgment.

Section 3.04. *Cause Event*.

a. Upon the occurrence of a Cause Event, at Comcast AG Shareholder's election, the Company shall (i) redeem the Company Securities held by ManagementCo Shareholder (a "**Cause Redemption**") in accordance with this Section 3.04 and (ii) terminate the Management Agreement.

b. Upon the occurrence of a Cause Redemption, (i) the Class I-B Shares held by ManagementCo Shareholder and the Class II Shares shall be compulsorily redeemed by the Company, (ii) ManagementCo Shareholder shall cease to have any rights, powers, obligations or duties provided to it under this Agreement (except for any rights, powers, obligations and duties under this Section 3.04(b) and Section 10.06) or otherwise in respect of its Class I-B Shares or the Class II Shares, (iii) ManagementCo Shareholder shall cause each member of the Board to resign, effective as of the date of such redemption, and (iv) Section 11.02 shall apply as if (A) the date of such redemption is an Interim Clawback Date and (B) the Company had sold all Company Assets at the Quarterly Value, settled all of its liabilities and distributed the resulting cash pursuant to Section 11.01 on the date of such redemption (and, for the avoidance of doubt, ManagementCo Shareholder shall not participate in any appreciation in the value of any Company Assets after the date of such redemption). In connection with a Cause Redemption, ManagementCo Shareholder shall be entitled to receive from the Company as of the date of redemption an amount equal to the distributions it would be entitled to receive in such assumed liquidation as contemplated by clause (iv) of the preceding sentence, less 20% of the portion of such amount that is attributable to undistributed Class II Proceeds, and ManagementCo Shareholder shall be deemed to have an Available Capital Commitment equal to zero from and after the date of redemption. Any amount paid to ManagementCo Shareholder pursuant to this Section 3.04(b) shall be paid in the form of a promissory note, which promissory note shall be non-interest bearing, shall have a final maturity date not later than the last day on which the Company makes distributions pursuant to Section 11.01 and shall provide that ManagementCo Shareholder will receive payments in respect thereto on each date on which a distribution is made to the Shareholders in proportion to the distributions that ManagementCo Shareholder would have received had a Cause Redemption not occurred. The Shareholders and the Company agree that, to the maximum extent permissible, all payments under this Section 3.04(b) (other than the issuance of the promissory note to the extent such issuance is not otherwise a taxable event under the Code) shall be treated as payments described in Section 736(b)(1) of the Code.

c. Upon any termination of the Management Agreement, the Manager shall cease to have any rights, powers, obligations or duties provided to it under this Agreement (except for any rights, powers, obligations and duties under Section 10.06).

ARTICLE 4

Consent Rights

Section 4.01. Actions Requiring Consent. The Company agrees that it shall not take any of the following actions (in each case, including any action by the Board or any committee of the Board or the Manager or any other manager of the Company) without the approval of Comcast AG Shareholder:

a. make any individual Investment (or a series of Investments that are part of the same overall transaction) of more than $400 million in the aggregate sourced from Capital Contributions or Distributable Amounts; *provided*, *however*, that at any time at which the Unreturned Capital Amount of Comcast Shareholder is zero, the Company may make any individual Investment (or a series of Investments that are part of the same overall transaction) of up to $750 million in the aggregate sourced from Distributable Amounts without the approval of Comcast AG Shareholder; or

b. make Investments of more than $2 billion in the aggregate sourced from Capital Contributions or Distributable Amounts in any 12-month period;

c. make any Regulated Investment that would:

i. limit or impair in any significant respect the activities of (A) any then-existing or then-contemplated Comcast Core Business under any provision of Relevant Law or (B) any then-existing Comcast Core Business operating in any jurisdiction outside of the United States under any Non-U.S. Law of any jurisdiction in which such Comcast Core Business operates; or

ii. subject (A) Comcast or any of its Affiliates to any additional significant obligations or requirements under Relevant Law or (B) any then-existing Comcast Core Business operating in any jurisdiction outside of the United States to any additional significant obligations or requirements under any Non-U.S. Law of any jurisdiction in which such Comcast Core Business operates;

d. make any Investment that would violate (or cause Comcast or any of its Affiliates to be in violation of) in any significant respect any Applicable Law;

e. make any Investment that would limit or impair in any significant respect the activities of any (i) then-existing or then-contemplated Comcast Core Business under U.S. Law regarding antitrust or (ii) then-existing Comcast Core Business operating in any jurisdiction outside of the United States under Non-U.S. Law regarding antitrust of any jurisdiction in which such Comcast Core Business operates;

f. make any Investment in the United States in any Comcast Core Business where Comcast wishes to (i) acquire 100% of the relevant business and, thereafter, (ii) integrate the relevant business into Comcast's other operations in a manner consistent with the manner in which Comcast has integrated other acquired businesses that do not have third party investors or in a manner such that it would otherwise be unduly burdensome or inappropriate for there to be third party investors in such business (a "**Comcast Core Integrated Investment**");

g. make any Investment in the United States in any Comcast Core Business, other than a Comcast Core Integrated Investment (a "**Comcast Core Non-Integrated Investment**"); *provided* that, in the case of any Comcast Core Non-Integrated Investment that is being independently considered by the Company, (i) with respect to such Comcast Core Non-Integrated Investment in a domestic corporation, the Company will partner and be permitted to co-invest with Comcast for at least 25% of such Comcast Core Non-Integrated Investment, *provided*, *however*, that such co-investment percentage may be reduced at Comcast's election, but not below 20%, solely to the extent necessary to enable Comcast to file a consolidated return (within the meaning of Section 1501 of the Code) with such domestic corporation; and (ii) with respect to all other Comcast Core Non-Integrated Investments, the Company will partner and be permitted to co-invest with Comcast for at least 25% of such Comcast Core Non-Integrated Investments;

h. make any Investment in the United States utilizing the Non-U.S. Capital Commitments;

i. issue any Company Securities other than as contemplated by this Agreement or any other equity securities or admit third party direct investors (other than Comcast Shareholder, ManagementCo Shareholder, any Comcast Permitted Transferee and any ManagementCo Permitted Transferee) in the Company;

j. incur, create, issue, assume or guarantee Company Debt except to the extent (i) the Company Debt Ratio does not exceed 1.25:1, (ii) the outstanding Company Debt does not exceed $5 billion and (iii) all Company Debt is Non-Recourse to Comcast (it being understood that any Company Debt incurred, created, issued, assumed or guaranteed at a time when the Company Debt Ratio satisfies the threshold set forth in subclause (i) above may remain outstanding thereafter without any required approval of the Comcast AG Shareholder whether or not the Company Debt Ratio satisfies such threshold at any subsequent time);

k. make a public offering of securities issued by the Company;

l. permit the entry into any agreement or arrangement between the Company or any of its Subsidiaries or Portfolio Companies or any of their respective Subsidiaries, on the one hand, and the Manager, ManagementCo Shareholder or any of their respective Affiliates (other than the Company and its Subsidiaries), on the other hand, other than this Agreement, the Management Agreement, the Letter Agreement or any such agreement or arrangement (A) providing for reimbursement by any Portfolio Company of any expenses of the Manager, ManagementCo Shareholder or any of their respective

Affiliates permitted to be reimbursed pursuant to Section 7.01, (B) providing for payment of any Transaction Fees to the Manager, the ManagementCo Shareholder or any of their respective Affiliates to the extent such payment is permitted by this Agreement or the Management Agreement, (C) providing for indemnification, contribution, exculpation or advancement of expenses by any Portfolio Company or any of its respective Subsidiaries in respect of any damages, liabilities, losses or expenses of the Manager, ManagementCo Shareholder or any of its Affiliates, (D) that is a shareholders agreement or similar agreement and does not provide for the payment of money or other items of value, directly or indirectly, to or for the benefit of the Manager, ManagementCo Shareholder or any of their respective Affiliates, or (E) that is a trademark license agreement or similar agreement related to intellectual property rights and does not provide for the payment of money or other items of value, directly or indirectly, to or for the benefit of the Manager, ManagementCo Shareholder or any of their respective Affiliates;

m. permit the waiver or failure to enforce by the Company or any of its Subsidiaries of any contractual obligations of the Manager, ManagementCo Shareholder or any of their respective Affiliates (other than the Company and its Subsidiaries), including obligations of the Manager pursuant to the Management Agreement;

n. take any action that is reasonably expected to cause the Company not to be treated as a partnership for U.S. federal income tax purposes; or

o. make any amendment to the Memorandum and Articles of Association.

Section . Further Agreements with Respect to Actions Requiring Consent. Section 4.02. Further Agreements with Respect to Actions Requiring Consent. 2

(a) In the event that Comcast AG Shareholder determines not to grant its consent to a proposed action pursuant to Section 4.01, the Manager and Comcast AG Shareholder shall discuss the reasons for such withholding of consent and will consider in good faith whether there are alternative approaches that might address Comcast AG Shareholder's concerns while permitting (a possibly modified version of) the proposed action to go forward.

(b) In the event that Comcast AG Shareholder determines not to grant its consent to a proposed Investment under Section 4.01(f) or Section 4.01(g), and such Investment is initially identified to Comcast Shareholder by the Company or the Manager, Comcast AG Shareholder, the Company and the Manager will discuss in good faith arrangements designed to compensate the Manager for its efforts in identifying/sourcing the Investment.

Section 4.03. *Core Business Determination*. Solely for the purposes of the matters covered by this Section 4.03, during the Company's evaluation of any prospective Investment, the Manager may, in its sole discretion, present to Comcast AG Shareholder a summary description of the prospective Investment ("**Core Business Evaluation Material**"), and Comcast AG Shareholder shall have 10 Business Days from receipt of such Core Business Evaluation Material to notify the Manager in writing

whether it believes that such prospective Investment is in a Comcast Core Business. To the extent Comcast AG Shareholder believes after receipt of Core Business Evaluation Material that a prospective Investment is in a Comcast Core Business, Comcast AG Shareholder will have an additional 10 Business Days from the date it notifies the Manager in writing of such belief to notify the Manager in writing whether it would designate such prospective Investment as a Comcast Core Integrated Investment or a Comcast Core Non-Integrated Investment. Notwithstanding the foregoing, Comcast AG Shareholder and Comcast acknowledge and agree that (i) any indication by Comcast AG Shareholder pursuant to this Section 4.03 that it believes a prospective Investment is in a Comcast Core Business shall not be binding on the Company, the Manager or any of their respective Affiliates and (ii) any indication by Comcast AG Shareholder pursuant to this Section 4.03 that it believes a prospective Investment is not in a Comcast Core Business shall be binding on Comcast Shareholder and its Affiliates.

ARTICLE 5

Restrictions on Transfer

Section 5.01. *General Restrictions on Transfer*.

(c) Each Shareholder understands and agrees that the Company Securities have not been registered under the Securities Act and are restricted securities. Each Shareholder agrees that it shall not Transfer any Company Securities, except in compliance with the Securities Act, any other applicable securities or “blue sky” laws and the terms and conditions of this Agreement and the Memorandum and Articles of Association.

(d) Any attempt to Transfer any Company Securities not in compliance with this Agreement and the Memorandum and Articles of Association shall be null and void, and the Company shall not give any effect in the Company’s register of members to such attempted Transfer.

Section . *Legends. Section 5.02. Legends. 2* If at any time the Company issues certificated Company Securities, then, in addition to any other legend that may be required, each certificate for Company Securities issued to any Shareholder shall bear a legend in substantially the following form:

> THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED, OR ANY NON-U.S. OR STATE SECURITIES LAWS AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN COMPLIANCE THEREWITH. THIS SECURITY IS ALSO SUBJECT TO ADDITIONAL RESTRICTIONS ON TRANSFER AS SET FORTH IN THE SHAREHOLDERS AGREEMENT DATED AS OF NOVEMBER 24, 2015 AND EFFECTIVE AS OF JANUARY 1, 2016, AS AMENDED FROM TIME TO TIME, COPIES OF WHICH MAY BE OBTAINED UPON REQUEST FROM ATAIROS GROUP, INC. OR ANY SUCCESSOR THERETO, AND THIS SECURITY MAY NOT BE

VOTED OR OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN COMPLIANCE THEREWITH.

Section 5.03. Restrictions on Transfers; Comcast Permitted Transferees.

(a) *Restrictions on Transfer*. Except as expressly permitted by this Agreement, no Transfer of any Company Securities shall occur.

(b) *Comcast Permitted Transferees*. Notwithstanding Section 5.03(a), without the consent of the Company, the Manager or any other Shareholder, (i) Comcast Shareholder may Transfer some or all of its Company Securities (A) to one or more Comcast Permitted Transferees in accordance with this Section 5.03 or (B) as contemplated by Section 10.08 and, in each case, in accordance with the Memorandum and Articles of Association and (ii) ManagementCo Shareholder may Transfer some or all of its Company Securities to one or more Management Shareholder Permitted Transferees in accordance with this Section 5.03 and the Memorandum and Articles of Association. For the avoidance of doubt, in the event of a Transfer in connection with a Comcast Spin Transaction, each of Comcast AG Shareholder and Comcast Spectacor Shareholder will Transfer either (x) all of its Company Securities to a Comcast Permitted Spin Transferee or (y) in the case of a Partial Spin Transfer, its Company Securities to a Comcast Permitted Spin Transferee on a *pro rata* basis.

(c) *Treatment of Comcast Shareholder Rights and Obligations*.

(i) If Comcast Shareholder Transfers all of its Company Securities to a Comcast Permitted Transferee, then, subject to Section 5.03(d), all Comcast Shareholder Rights and Obligations shall, subject to Section 5.03(c)(iv), automatically apply to such Comcast Permitted Transferee, and the provisions of this Agreement shall be construed accordingly.

(ii) If Comcast Shareholder Transfers some, but less than all, of its Company Securities to a Comcast Permitted Spin Transferee (a "**Partial Spin Transfer**"), then (A) such Transfer shall only be in the form of an indirect transfer via the transfer to such Comcast Permitted Spin Transferee of equity securities issued by Comcast Shareholder (or the issuance by Comcast Shareholder of equity securities to such Comcast Permitted Spin Transferee), (B) subject to Section 5.03(c)(iv) and Section 5.03(d), all Comcast Shareholder Rights and Obligations shall continue to apply to, and shall only be exercisable by, Comcast Shareholder and (C) Comcast and the Comcast Permitted Spin Transferee shall enter into such arrangements with respect to the indirect allocation of Comcast Shareholder Rights and Obligations between themselves (as holders of equity securities issued by Comcast Shareholder) as they shall determine in their sole discretion.

(iii) In the event that Comcast proposes to effect a Partial Spin Transfer and the procedures set forth in Section 5.03(c)(ii) would, or would reasonably be likely to, result in significant adverse consequences to Comcast or the Comcast Permitted Spin Transferee, then Comcast AG Shareholder, the Company and the Manager shall negotiate

in good faith to structure alternative arrangements and modify this Agreement so as to effect the original intent of the parties (as reflected in Section 5.03(c)(ii) and Section 5.03(d)) as close as possible in an acceptable manner so that the transactions contemplated by Section 5.03(c)(ii) can be consummated as originally contemplated to the fullest extent possible without resulting in such adverse consequences. Without limiting the generality of the foregoing, such alternative arrangements may include the Transfer of some of Comcast Shareholder's Company Securities to the Comcast Permitted Spin Transferee and the allocation of the Comcast Shareholder Rights and Obligations between Comcast and the Comcast Permitted Spin Transferee.

(iv) In the event of a Partial Spin Transfer, Comcast AG Shareholder's consent rights set forth in Section 4.01(c) shall only be allocated to the Comcast Permitted Spin Transferee pursuant to Section 5.03(c)(ii) to the extent they correspond to the legal and regulatory regimes applicable to such Comcast Permitted Spin Transferee. In the event of a Transfer of all Comcast Shareholder's Company Securities to a Comcast Permitted Spin Transferee, the parties acknowledge and agree that Comcast AG Shareholder's consent rights set forth in Section 4.01(c) shall be adjusted, if necessary, in order to correspond only to the legal and regulatory regimes applicable to such Comcast Permitted Spin Transferee and, in such a case, the parties shall negotiate in good faith to enter into an amendment to this Agreement, to be effective immediately prior to the completion of any such Transfer, so that such consent rights are so appropriately adjusted; *provided*, *however*, that in no case shall such consent rights be adjusted to grant any broader consent rights to any Comcast Permitted Spin Transferee than the consent rights held by Comcast AG Shareholder pursuant to Section 4.01(c) as in effect immediately prior to such amendment.

(d) *Treatment of ROFO Rights*.

(i) In the case of a Transfer of all of Comcast Shareholder's Company Securities to a Comcast Permitted Spin Transferee:

(A) if, at the time of the Transfer, the Comcast Permitted Spin Transferee is an Eligible ROFO Holder:

(1) the Comcast Rights and Obligations set forth in Article 9 (the "**ROFO Rights**") shall automatically apply to the Comcast Permitted Spin Transferee; and

(2) if, at any time after the Transfer, the Comcast Permitted Spin Transferee ceases to be an Eligible ROFO Holder, the ROFO Rights shall automatically cease to apply effective as of the 24 month anniversary of the date on which the Comcast Permitted Spin Transferee ceases to be an Eligible ROFO Holder; *provided* that the ROFO Rights shall continue to apply in respect of any Offered ROFO Assets for which an Offer Notice has been delivered prior to the time at which the ROFO Rights otherwise cease to apply (this proviso, the "**Surviving ROFO Rights Principle**"); or

(B) if, at the time of the Transfer, the Comcast Permitted Spin Transferee is not an Eligible ROFO Holder, the ROFO Rights shall automatically cease to apply, subject to the Surviving ROFO Rights Principle.

(ii) In the case of a Partial Spin Transfer:

(A) if, at the time of the Transfer, neither Comcast nor the Comcast Permitted Spin Transferee is an Eligible ROFO Holder, the ROFO Rights shall automatically cease to apply, subject to the Surviving ROFO Rights Principle; or

(B) in all other cases, (1) at the time of the Transfer, Comcast shall determine in its sole discretion, and designate in writing to the Manager, whether the ROFO Rights with respect to each Portfolio Company in which the Company then holds an Investment shall be allocated to Comcast or to the Comcast Permitted Spin Transferee and (2) at all times after the Transfer, promptly following the consummation of each Investment made by the Company in a Portfolio Company that is not covered by the preceding clause (1), Comcast shall determine in its sole discretion, and designate in writing to the Manager, whether the ROFO Rights with respect to such Portfolio Company shall be allocated to Comcast or to the Comcast Permitted Spin Transferee; *provided* that, in the case of each of clauses (1) and (2), Comcast may not allocate ROFO Rights to Comcast or to the Comcast Permitted Spin Transferee if, at the time of such allocation, such Person is not an Eligible ROFO Holder (and, if at the time at which Comcast would otherwise allocate ROFO Rights pursuant to this Section 5.03(d)(ii), neither Comcast nor the Comcast Permitted Spin Transferee is an Eligible ROFO Holder, then such ROFO Rights shall automatically cease to apply, subject to the Surviving ROFO Rights Principle).

(iii) If any ROFO Rights are allocated to Comcast or the Comcast Permitted Spin Transferee pursuant to Section 5.03(d)(ii) and, following such allocation, such Person ceases to be an Eligible ROFO Holder, then the ROFO Rights allocated to such Person shall automatically cease to apply effective as of the 24 month anniversary of the date on which such Person ceases to be an Eligible ROFO Holder, subject to the Surviving ROFO Rights Principle.

(iv) For the avoidance of doubt, (A) any ROFO Rights allocated to Comcast or the Comcast Permitted Spin Transferee pursuant to Section 5.03(d)(ii) shall continue to apply to, and shall only be exercisable by, Comcast Shareholder, as contemplated by Section 5.03(c)(ii) and (B) any ROFO Rights that cease to apply pursuant to Section 5.03(d)(ii) or 5.03(d)(iii) shall no longer apply to, and shall not be exercisable by, Comcast Shareholder or any other Person.

(e) *General Provisions*.

(i) Notwithstanding Section 5.03(b), in no event may a Transfer of some or all of the Company Securities held by Comcast Shareholder or ManagementCo Shareholder occur if the Manager determines in good faith that such Transfer is reasonably likely to (A) cause a dissolution of the Company under Applicable Law (for

the avoidance of doubt, not including any technical termination under Section 708(b)(1)(B) of the Code); (B) result in the Company's assets being deemed to be "plan assets" for purposes of ERISA or constitute a prohibited transaction under ERISA or the Code; (C) require the Company to register as an "investment company" within the meaning of the Investment Company Act; (D) require registration of any Company Securities under the Securities Act; (E) cause the Company to be treated (or cause a material risk that the Company will be treated) as a 'publicly traded partnership' or otherwise as a corporation for U.S. federal income tax purposes; (F) subject the Company, the Manager or any of their respective Affiliates to a materially burdensome tax, legal or regulatory regime to which it would not otherwise be subject; (G) cause the Company, the Manager or any of their respective Affiliates to be in violation of Applicable Law; or (H) result in the Company, any Shareholder or any of their respective Affiliates being subject, directly or indirectly, to additional tax costs not reimbursed by Comcast (with respect to a Transfer of Company Securities held by Comcast Shareholder) or ManagementCo Shareholder (with respect to a Transfer of Company Securities held by ManagementCo Shareholder).

(ii) Each Comcast Permitted Transferee and ManagementCo Shareholder Permitted Transferee shall execute a joinder to this Agreement in a form to be reasonably agreed by the transferor and the Company.

(iii)

ARTICLE 6

Capital Commitments and Capital Contributions

Section 6.01. *Capital Commitments.* 2

a. Each Shareholder hereby agrees to, from time to time as hereinafter set forth in this Article 6, make Capital Contributions in respect of (i) Investments; *provided* that the applicable Drawdown Notice is delivered to such Shareholder prior to the termination of the Commitment Period (except that such Drawdown Notice may be delivered to such Shareholder after the termination of the Commitment Period if such Drawdown Notice relates to an Investment that the Company committed to make pursuant to a binding agreement entered into prior to the termination of the Commitment Period) and (ii) Company Expenses.

b. Notwithstanding anything contained in this Agreement, but subject to Section 6.03, no Shareholder shall be required to make any Capital Contribution (other than a Capital Contribution by Comcast AG Shareholder to fund the Management Fee pursuant to Section 6.02(d)) to the extent that, at the time such Capital Contribution is to be made, such Capital Contribution exceeds such Shareholder's Available Capital Commitment at such time.

c. At Comcast AG Shareholder's election, the Commitment Period shall terminate early upon the first to occur of the following:

i. an Initial CEO Event; or

ii. a Cause Event.

The Company shall give Comcast prompt notice of the occurrence of any Initial CEO Event or Cause Event.

d. Capital Contributions shall be treated by the Company as consideration for the subscription for additional Class I Shares in accordance with Section 2.04(b).

Section 6.02. *Drawdowns.* 2

a. Subject to Article 4 and this Article 6, each Shareholder shall make Capital Contributions in such amounts and at such times as the Company shall specify in notices ("**Drawdown Notices**") delivered from time to time to such Shareholder. All Capital Contributions shall be paid to the Company in immediately available funds in U.S. dollars by 11:00 A.M. (New York time) on the date specified in the applicable Drawdown Notice. Capital Contributions may include amounts that the Company determines, in its reasonable discretion, are necessary or desirable for Temporary Cash Funds or to establish reserves in respect of Company Expenses.

b. Each Drawdown Notice in respect of a Drawdown shall specify:

i. the manner in which, and the expected date on which, such Drawdown is to be applied;

ii. the required Capital Contribution to be made by each Shareholder (which shall be equal to the sum of (x) such Shareholder's share (determined pursuant to Section 6.02(c)) of each Investment Drawdown Amount, and (y) such Shareholder's share (determined pursuant to Section 6.02(d)) of each Company Expenses Drawdown Amount;

iii. the date (the "**Drawdown Date**") on which such Capital Contribution is due, which will be at least 10 Business Days from and including the date of delivery of the Drawdown Notice; and

iv. the account of the Company to which such Capital Contributions shall be paid.

c. With respect to each draw of Capital Contributions to the extent to fund an Investment, each Shareholder shall be required to make a Capital Contribution equal to the product of (x) such Shareholder's Available Commitment Percentage multiplied by (y) the Investment Drawdown Amount in respect of such Investment; *provided*, that Comcast Shareholder's aggregate share of all such Capital Contributions (i) to fund the Investment in Spectra shall be made by Comcast Spectacor Shareholder (and not Comcast AG Shareholder) and (ii) to fund all other Investments shall be made by Comcast AG Shareholder (and not Comcast Spectacor Shareholder).

d. With respect to each draw of Capital Contributions to the extent to fund Company Expenses, each Shareholder shall be required to make a Capital Contribution

equal to the product of (x) such Shareholder's Available Commitment Percentage multiplied by (y) the Company Expenses Drawdown Amount in respect of such Company Expenses; *provided*, that, with respect to each draw of Capital Contributions to the extent to fund Company Expenses (other than the Management Fee), Comcast Shareholder's aggregate share of all such Capital Contributions (i) reasonably determined by the Manager to be allocable to the Investment in Spectra shall be made by Comcast Spectacor Shareholder (and not Comcast AG Shareholder) notwithstanding that such Capital Contribution may exceed Comcast Spectacor Shareholder's Available Capital Commitment (in which case, Comcast Spectacor Shareholder's Capital Commitment shall be increased by the amount of such Capital Contributions and Comcast AG Shareholder's Capital Commitment shall be decreased by a corresponding amount) and (ii) otherwise shall be made by Comcast AG Shareholder (and not Comcast Spectacor Shareholder); and *provided*, *further*, that, with respect to each draw of Capital Contributions to the extent to fund the Management Fee, Comcast AG Shareholder shall be required to make a Capital Contribution equal to the amount of the Management Fee to be funded by such draw and no other Shareholder shall be required to make any Capital Contribution.

e. Subject to Section 4.01, the Company may utilize previous Capital Contributions in respect of Temporary Cash Funds or amounts retained by the Company pursuant to Section 8.05(c) to fund all or any portion of the acquisition of any Investment or the payment of Company Expenses at any time, and, for the avoidance of doubt, any such use will not reduce the Available Capital Commitment of any Shareholder.

f. Notwithstanding Sections 6.02(a) or 6.02(b) or anything to the contrary in this Agreement, the initial Capital Contributions by Comcast Spectacor Shareholder and ManagementCo Shareholder in respect of the Investment in Spectra shall be made in-kind in accordance with the Spectra Agreement, and not in immediately available funds in U.S. dollars, and the parties agree that the Drawdown Notice in respect of such Investment in Spectra will not be delivered at least 10 Business Days prior to the Drawdown Date. Comcast Shareholder's and ManagementCo Shareholder's share of all future Capital Contributions in respect of the Investment in Spectra shall be made in accordance with this Section 6.02. Notwithstanding anything to the contrary in this Agreement, promptly following (i) the initial Capital Contribution of each of Comcast Spectacor Shareholder and ManagementCo Shareholder in respect of the Investment in Spectra and (ii) the incurrence of certain borrowings by Spectra, a portion of the proceeds of such borrowings shall be distributed, first, to the Company by Spectra and, second, to the Shareholders by the Company, in each case, in the amounts provided in the Spectra Agreement. The parties agree that (i) the amount distributed to the Shareholders pursuant to the preceding sentence shall be treated as a Recap Dividend pursuant to Section 8.03(c) (and, for purposes of allocating Capital Contributions in respect of the Investment in Spectra as contemplated by Section 8.03(c), (a) an amount equal to the amount of the Recap Dividend shall be allocated to the disposed of portion of the Investment and (b) an amount equal to (1) the amount of Capital Contributions in respect of the Investment in Spectra minus (2) the amount of the Recap Dividend shall be allocated to the remaining portion of the Investment) and (ii) solely for purposes of Section 8.02, Section 8.03 (other

than Section 8.03(c)) and Article 11, the portion of the initial Capital Contribution of Comcast Spectacor Shareholder in respect of the Investment in Spectra that is allocated to such Recap Dividend pursuant to Section 8.03(c) shall be deemed to have been made by Comcast AG Shareholder (and not Comcast Spectacor Shareholder) to the extent of the amount of proceeds distributed to Comcast AG Shareholder pursuant to the preceding sentence. To the extent the distribution to the Shareholders contemplated by the third sentence of this Section 6.02(f) is not made on of the date of the initial Capital Contributions in respect of the Investment in Spectra, but is made within five Business Days thereafter, such distribution shall nevertheless be deemed to be made on the same date as such Capital Contributions for all purposes of calculating the Priority Return in connection with the Capital Contributions returned as part of such distribution.

Section 6.03. *Reinvestment.* At all times prior to the seventh anniversary of the Commencement Date, the Company may recall as Capital Contributions pursuant to this Article 6 all or a portion of amounts distributed to the Shareholders pursuant to Section 8.02 that represent the return of Capital Contributions made by the Shareholders and use such recalled amounts for the making of Investments; *provided* that in no event will the cost basis (i) of Investments held by the Company attributable to Capital Contributions made by Comcast Shareholder in respect of its Original Capital Commitment (including any recalled Capital Contributions) exceed $4,000,000,000 at any time or (ii) of Investments held by the Company attributable to Capital Contributions made by Comcast Shareholder in respect of its Non-U.S. Capital Commitment (including any recalled Capital Contributions) exceed $1,000,000,000 (in each case for the avoidance of doubt, not reduced by any amounts retained by the Company pursuant to Section 8.05(c)). In order to give effect to the foregoing, any amounts distributed prior to the seventh anniversary of the Commencement Date to any Shareholder pursuant to Section 8.02 that represent the return of Capital Contributions shall reduce, on a dollar-for-dollar basis, the amount of “Capital Contributions made” by such Shareholder prior to such time for purposes of clause (b) of the definition of “Available Capital Commitments”. Notwithstanding the foregoing or anything to the contrary in this Agreement, for purposes of this Section 6.03, (a) the amount of the distribution to each Shareholder as contemplated by the third sentence of Section 6.02(f) will be recallable under this Section 6.03 until the end of the Commitment Period (and shall reduce, on a dollar-for-dollar basis, the amount of “Capital Contributions made” by such Shareholder prior to such time for purposes of clause (b) of the definition of “Available Capital Commitments”) and (b) amounts distributed to Comcast Spectacor Shareholder pursuant to Section 8.02 that represent the return of Capital Contributions made by Comcast Spectacor Shareholder may be recalled from Comcast AG Shareholder (as if originally made by Comcast AG Shareholder) for the purpose of making Investments other than any Investment in Spectra.

ARTICLE 7
Expenses

Section 7.01. *Definition and Payment of Manager Expenses*. The Management Agreement provides that, as between the Manager and the Company, the Manager shall

be solely responsible for and shall pay all Manager Expenses. As used herein, the term "**Manager Expenses**" means (i) normal operating expenses of the Manager including compensation and employee benefit expenses of employees of the Manager and related overhead (including rent, utilities and other similar items) (it being understood that the Manager or any of its Affiliates may seek to be reimbursed by actual or potential Portfolio Companies for out-of-pocket expenses incurred by the Manager or any of its Affiliates (e.g., due diligence, legal, accounting, investment banking and similar expenses incurred in connection with any actual or prospective transactions; travel expenses associated with attending board meetings and otherwise conducting investment oversight, etc.)), and (ii) routine administrative expenses of the Company (e.g., the preparation of financial statements of the Company pursuant to Section 10.02(a) and the preparation and filing of tax returns of the Company pursuant to Section 10.19(a), subject to the other terms regarding expenses set forth in Section 10.19(a)).

Section 7.02. Definition and Payment of Company Expenses.

a. The Company shall be responsible for and shall pay all Company Expenses. As used herein, the term "**Company Expenses**" means all expenses or obligations of the Company or any Subsidiary, or otherwise incurred by the Manager in connection with this Agreement (other than (x) Manager Expenses and (y) the obligation of the Company to pay the purchase price for any Investment), including:

i. reasonable expenses in connection with the organization of the Company;

ii. to the extent not reimbursed by actual or potential Portfolio Companies, expenses directly attributable to any Investment or proposed Investment that is ultimately not made by the Company, including all unreimbursed expenses incurred in connection with the evaluation, making, holding, refinancing, pledging, sale or other disposition or proposed refinancing, pledging, sale or other disposition of all or any portion of such Investment (including deal initiation expenses, investment banking, consulting, valuation, custodial, trustee and professional expenses, and travel);

iii. to the extent not reimbursed by actual or potential Portfolio Companies, other expenses of the Company incurred in connection with the ongoing operation and administration of the Company that are not included in the definition of "Manager Expenses", including the Management Fee; and

iv. non-routine or extraordinary expenses of the Company, including any litigation-related expense, indemnification obligation and any other indemnity, contribution or reimbursement obligations of the Company with respect to any Person, whether payable in connection with a proceeding involving the Company or otherwise, and premiums for related insurance, if any.

ARTICLE 8

Distributions; Allocations; Capital Accounts

Section 8.01. Distributions Generally. 2 Subject to the provisions of Section 11.01, distributions shall be made in accordance with this Article 8. Except as expressly set forth below, all calculations with respect to distributions shall be made on an Investment-by-Investment basis.

Section 8.02. *Distributions of Proceeds of Investments*. 2 Subject to Section 8.05, and to amounts being lawfully available for the purpose, distributions of Proceeds in respect of a particular Investment will be made in respect of the Class I Shares and the Class II Shares until the holders of the Class I Shares and the Class II Shares have received, on a cumulative basis and without duplication, the amounts set forth below in the following order of priority:

a. first, 100% to the holders of Class I Shares (*pro rata* in accordance with the amount of Capital Contributions made by such holders in respect of such Investment) until the aggregate amount distributed in respect of the relevant Investment equals the aggregate amount of Capital Contributions made in respect of such Investment plus the Priority Return;

b. second, 100% to the holders of Class I Shares (*pro rata* in accordance with the amount of Capital Contributions made by such holders in respect of previously realized Investments) until the aggregate amount distributed in respect of previously realized Investments equals the aggregate amount of Capital Contributions made in respect of such previously realized Investments plus the Priority Return;

c. third, 100% to Comcast AG Shareholder until the aggregate amount distributed equals the amount of Capital Contributions made in respect of Management Fees theretofore paid that the Manager determines in good faith should be returned pursuant to this clause third in order to reflect the cost basis of the portion of the Company's aggregate portfolio represented by the relevant Investment and the previously realized Investments (measured relative to the cost basis of all realized and unrealized Investments) plus the Priority Return on such amount of Management Fees;

d. fourth, 100% to the holders of Class I Shares (*pro rata* in accordance with the amount of Capital Contributions made by such holders in respect of Qualifying Company Expenses) until the aggregate amount distributed equals the amount of Capital Contributions made in respect of Company Expenses (whether or not attributable to any Investment and, for the avoidance of doubt, excluding the Management Fee) theretofore paid that the Manager determines in good faith should be returned pursuant to this clause fourth in order to reflect the cost basis of the portion of the Company's aggregate portfolio represented by the relevant Investment and the previously realized Investments (measured relative to the cost basis of all realized and unrealized Investments) (such amount of Company Expenses, the "**Qualifying Company Expenses**") plus the Priority Return;

e. fifth, either:

i. if the Quarterly Value of the Company's unrealized Investments is less than the aggregate amount of Capital Contributions made in respect of such unrealized Investments, 100% to the holders of Class I Shares (*pro rata* in accordance with the amount of Capital Contributions made by such holders in respect of unrealized Investments) until the aggregate amount distributed equals the amount of the unrealized loss; or

ii. if the Quarterly Value of the Company's unrealized Investments is greater than the amount equal to (x) the aggregate amount of Capital Contributions made in respect of such unrealized Investments minus (y) the aggregate amount previously distributed to the holders of Class I Shares pursuant to subclause (i) of this clause (e) on account of then existing net unrealized losses in respect of such unrealized Investments (such excess amount, the "unrealized gain" at such time), 100% to the holder of Class II Shares until the aggregate amount distributed equals (A) 14.286% multiplied by (B) the amount of such unrealized gain (*provided* that the amount of such unrealized gain taken into account for purposes of this calculation shall not exceed the aggregate amount previously distributed to the holders of Class I Shares pursuant to subclause (i) of this clause (e) and such previously distributed amounts shall relate to Investments that are unrealized Investments at the time of the distribution pursuant to this subclause (ii));

f. sixth, 87.5% to the holder of the Class II Shares and 12.5% to the holders of the Class I Shares (*pro rata* in accordance with the respective aggregate Capital Contributions made by the holders of the Class I Shares, other than Capital Contributions made by Comcast AG Shareholder to fund the Management Fee) until the holder of the Class II Shares has received, as a "catch up" distribution with respect to its Class II Shares, 12.5% of all distributions made, less aggregate Capital Contributions (including Capital Contributions made to pay Company Expenses, including Management Fees) returned, pursuant to clauses (a) through (d) above and this clause (f); and

g. thereafter, 87.5% to the holders of the Class I Shares (*pro rata* in accordance with the respective aggregate Capital Contributions made by the holders of the Class I Shares, other than Capital Contributions made by Comcast AG Shareholder to fund the Management Fee) and 12.5% to the holder of the Class II Shares.

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Section 8.03. Other Provisions Applicable to Distributions. 2

a. Notwithstanding anything to the contrary contained herein,

i. it shall not be necessary to recover capital in respect of any realized Investment under clause (a) or (b) of Section 8.02 if such capital has been previously recovered by virtue of a distribution under subclause (i) of clause (e) of Section 8.02 (which distribution, for the avoidance of doubt, has not been offset by a corresponding distribution under subclause (ii) of clause (e) of Section 8.02); *provided*, *however*, that for the avoidance of doubt, in the case any capital in respect of any realized Investment has been recovered by virtue of such a distribution under subclause (i) of

clause (e) of Section 8.02, it shall remain necessary to make distributions of the Priority Return under clause (b) of Section 8.02 in respect of such recovered capital to the extent prior distributions under clause (a) of Section 8.02 have been insufficient to satisfy the full amount of such Priority Return; and

ii. it shall not be necessary to make any distribution in respect of any unrealized loss under subclause (i) of clause (e) of Section 8.02 if there has been a previous distribution in respect of the amount of such loss under subclause (i) of clause (e) of Section 8.02; *provided, however*, that for the avoidance of doubt, it shall remain necessary to make distributions under subclause (i) of clause (e) of Section 8.02 in respect of subsequent unrealized losses with respect to the same Investment.

b. It is understood that for purposes of Section 8.02, (i) a "realized Investment" will mean any Investment that has been sold, otherwise disposed of or permanently and fully written off, and an "unrealized Investment" will mean any Investment that has not been sold, otherwise disposed of or permanently and fully written off, in each case as determined by the Manager in its reasonable discretion and (ii) any Investment that is partially sold or otherwise disposed of shall be treated as two (or more, as appropriate) separate Investments and the Capital Contributions in respect of such Investment shall be allocated among such two (or more, as appropriate) separate Investments, in each case as determined by the Manager in its reasonable discretion.

c. In the event a recapitalization or similar transaction in respect of any Investment results in the receipt by the Company of any extraordinary dividends or similar proceeds ("**Recap Dividends**"), such transaction shall be treated as a partial disposition of the applicable Investment equal to the amount of such Recap Dividends received (and for purposes of Section 8.02 Capital Contributions in respect of the relevant Investment shall be allocated *pro rata* between such Recap Dividends and the remaining Investment based upon the relative amount of such Recap Dividends and the Fair Market Value of the remaining Investment immediately after giving effect to the payment of such Recap Dividends, as determined by the Manager in its reasonable discretion; *provided* that where such Investment consists of Publicly Traded Securities, such determination shall be based on the relative trading prices of such Publicly Traded Securities on the principal securities exchange on which such securities are traded prior to and after the record date for the Recap Dividend.

d. In the case of any ordinary dividends, interest or similar amounts received in respect of any unrealized Investment, such ordinary dividends, interest or similar amounts shall not be treated as a disposition of the applicable Investment and such unrealized Investment shall not be taken into account in determining the amount of Management Fees or Company Expenses that are to be returned pursuant to clauses (c) and (d) of Section 8.02.

e. Any amounts of Capital Contributions that are not used to make Investments or to satisfy Company Expenses (including as Temporary Cash Funds) or to pay the Management Fee, together with any net income thereon, shall be returned by the Company to the Shareholders, in the same relative proportions as the Shareholders made such Capital Contributions, promptly following the determination by the Manager that such amounts will not be used for the purpose for which the relevant Capital

Contributions were made, subject to amounts being lawfully available to effect such return and subject to the right of the Company to retain reasonable reserves for contingencies, expenses and liabilities. Any such returned Capital Contributions shall remain available for recall by the Company in accordance with the terms of this Agreement.

f. Notwithstanding anything in this Agreement to the contrary, the ManagementCo Shareholder may at any time without the consent of any Shareholder elect not to receive at the time otherwise provided therefor all or any portion of any distribution that otherwise would be made as a Class II Distribution. Any amount that is not distributed to the ManagementCo Shareholder due to the preceding sentence, in the ManagementCo Shareholder's sole discretion, either shall be retained by the Company on behalf of the ManagementCo Shareholder or shall be distributed to the applicable Class I Shareholders. In making distributions to a Class I Shareholder of any amount pursuant to the preceding sentence, the ManagementCo Shareholder may apply such amount against distributions to such Class I Shareholder to which such Class I Shareholder is or becomes entitled under any subsection of Section 8.02 (including as a return of Capital Contributions made in respect of Investments, Management Fees and other Company Expenses, and/or a payment of the Priority Return), but treated as having been made on the actual date any such amount is distributed. If the ManagementCo Shareholder in its sole discretion so elects, and unless and except to the extent the ManagementCo Shareholder has waived its election right under this Section 8.03(f), all or any portion of subsequent distributions otherwise distributable to such Class I Shareholder may be distributed to the ManagementCo Shareholder until the ManagementCo Shareholder has received the amount of distributions it would have received had it not waived receipt of any distributions pursuant to the first sentence of this Section 8.03(f). To the extent the ManagementCo Shareholder has elected not to receive all or any portion of any distribution that otherwise would be made as a Class II Distribution with respect to any Class I Shareholder in accordance with this Section 8.03(f), the ManagementCo Shareholder shall be under no obligation to waive or reduce distributions with respect to any other Shareholders. The ManagementCo Shareholder shall be authorized to make such determinations that the ManagementCo Shareholder in good faith believes to be reasonably necessary to give effect to any provision set forth in this Section 8.03(f) and to implement other provisions of this Agreement (including but not limited to Section 11.02) in a manner consistent with this Section 8.03(f).

Section 8.04. *Tax Distributions.* To the extent of available cash as determined in the reasonable discretion of the Manager, and to amounts being lawfully available for the purpose, at the option of each Shareholder from time to time, the Company shall make distributions in cash to such Shareholder in an amount necessary to pay combined federal, state and local income tax, determined based on the Tax Rate, in respect of the net taxable income and gain allocated to such Shareholder in respect of any taxable year of the Company. For purposes of applying the other provisions of this Article 8, any distribution that is made pursuant to this Section 8.04 shall be treated as an advance against distributions otherwise to be made pursuant to the other provisions of this Article 8.

Section 8.05. Other General Principles of Distribution.

a. *Distributions of Cash*. Subject to Section 8.05(c) and Section 11.01(b), and to amounts being lawfully available for the purpose, distributions of Proceeds shall be made as promptly as practicable after their receipt by the Company. All distributions pursuant to this Section 8.05(a) shall be made in immediately available funds in (x) U.S. dollars, except to the extent that distributions in U.S. dollars would be illegal or impracticable under Applicable Law, in which case, to such extent, distributions shall be made in the currency in which cash is received by the Company or (y) Marketable Securities.

b. *Distributions in Kind*. Prior to the commencement of the winding up of the Company, the Company shall not make any distributions in kind of securities unless such securities are Marketable Securities. Following the commencement of the winding up of the Company, subject to Section 11.01(b), the Company may distribute in kind any securities (whether or not Marketable Securities) or other property constituting all or any portion of an Investment in such amounts as the Company shall in its reasonable discretion determine. In any distribution of property in kind, the Company shall not discriminate among the Shareholders but shall in any such distribution (i) distribute to the Shareholders property of the same type and (ii) if cash and property in kind are to be distributed simultaneously in respect of any Investment, distribute cash and property in kind in the same proportion to each Shareholder. For purposes of distributions pursuant to Section 8.02 and allocations pursuant to Section 8.07, (A) Marketable Securities shall be valued at the average of their closing sale prices on the principal securities exchange on which such securities were traded on each trading day during the five trading day period ending immediately prior to such distribution, or if such securities are not primarily traded on a securities exchange, the five day average of their closing bid prices as shown by the National Association of Securities Dealers Automated Quotation System or comparable established over-the-counter trading system consisting of the five trading day period immediately prior to such distribution and (B) all other property to be distributed in kind shall be valued at the Fair Market Value thereof determined by the Manager in its reasonable discretion on a date as near as reasonably practicable to the date of notice of such distribution.

c. *Amounts Held in Reserve*. Subject to Section 8.04, the Company shall have the right to retain up to $2,000,000,000 of amounts otherwise distributable by the Company to the Shareholders ("**Distributable Amounts**"); *provided* that, after the termination of the Commitment Period in accordance with the terms hereof, (i) the Company shall retain Distributable Amounts only in an amount not greater than the amount necessary to make such provision as the Manager deems necessary or advisable, in its reasonable discretion, for liabilities and obligations, contingent or otherwise, of the Company; *provided*, *however* that such liabilities and obligations shall not include the obligation to pay for the purchase price of Investments except pursuant to commitments of the Company in effect at such time; and (ii) any amount held by the Company as of the

termination of the Commitment Period in excess of the amounts permitted to be retained pursuant to the preceding clause (i) shall be promptly distributed to the Shareholders. To the extent that any Investment is funded with Distributable Amounts retained by the Company pursuant to this Section 8.05(c), such Investment shall, for purposes of Section

8.02, be treated as the same Investment as the initial Investment whose realization resulted in such Distributable Amounts (or in the Distributable Amounts that were used to fund any intermediate Investment whose realization resulted in the Distributable Amounts used to fund such Investment).

d. *Tax Withholding.* The Company is authorized to pay or withhold and pay over to the U.S. Internal Revenue Service, or to any other relevant taxing authority, (i) such amounts as the Company is required to pay or withhold and pay over pursuant to the Code or any other Applicable Law in respect of any Shareholder (including (x) to satisfy any outstanding tax liability of a Shareholder or (y) any such amounts withheld against the Company with respect to a Shareholder), (ii) such portion of any amounts in connection with an audit for which the Company is liable and that the Manager determines, in its reasonable discretion, is attributable to such Shareholder or that result from such Shareholder's status, actions or inactions, and (iii) any amounts that the Manager reasonably determines should be paid or withheld and paid by the Company pursuant to Section 1446(f) of the Code. The Manager shall allocate any such amounts paid or withheld and paid to the Shareholders in respect of whom such amount was paid or withheld and paid and shall treat such amounts as actually distributed to such Shareholders. To the extent any such payment or withholding exceeds any Shareholder's share of distributions or proceeds, or to the extent the Manager fails for any reason to withhold any amounts required to be withheld as set forth in this Section 8.05(d), each Shareholder further agrees to indemnify the Company in full for any amounts required to be paid or withheld and paid in respect of or that is attributable to such Shareholder (including, without limitation, any interest, penalties and expenses associated with such payments), and each Shareholder shall promptly upon notification of an obligation to indemnify the Company pursuant to this Section 8.05 make a cash payment to the Company equal to the full amount to be indemnified. This Section 8.05(d) shall survive and continue in full force in accordance with its terms notwithstanding any termination of this Agreement or the dissolution of the Company and no current or former Shareholder shall be released from any obligations pursuant to this Section 8.05(d) as a result of any Transfer of its Company Securities (in whole or in part) or withdrawal from the Company. Notwithstanding the foregoing, a Shareholder shall not be required to indemnify the Company, and the Manager shall instead indemnify the Company, with respect to such interest, penalties, additions to tax or additional amounts that are imposed as a result of a failure by the Company to withhold tax with respect to such Shareholder due to the Manager's fraud, willful misconduct or recklessness.

e. *Excess Transaction Fees.* Notwithstanding anything to the contrary in this Agreement, (i) any Excess Transaction Fees received by the Company (including any Excess Transaction Fees received by the Manager or any of its Affiliates and remitted to the Company) shall be distributed to Comcast AG Shareholder and (ii) any distributions of Excess Transaction Fees to Comcast AG Shareholder shall not be treated as having been made pursuant to Section 8.02 or 11.02 and shall not reduce the amounts that the holders of Class I Shares are entitled to receive pursuant to those Sections.

f. *Comcast Spectacor Shareholder*. Notwithstanding anything to the contrary in this Agreement, (i) Comcast Shareholder's share of distributions (whether in cash or in kind) attributable to the Investment in Spectra shall be made solely to Comcast

Spectacor Shareholder up to Comcast Spectacor Shareholder's then-current Capital Account balance, and any amount of any such distribution that would be in excess of Comcast Spectacor Shareholder's then-current Capital Account balance shall be made to Comcast AG Shareholder and (ii) Comcast Shareholder's share of any distribution of cash other than a distribution of cash attributable to the Investment in Spectra shall be made solely to Comcast AG Shareholder up to Comcast AG Shareholder's then-current Capital Account balance, and any amount of any such distribution that would be in excess of Comcast AG Shareholder's then-current Capital Account balance shall be made to Comcast Spectacor Shareholder. For the avoidance of doubt, (i) the calculations required under Section 8.02 related to the Company's aggregate portfolio of Investments shall include Spectra and (ii) nothing in this clause (f) shall alter the aggregate distributions to which Comcast Shareholder is entitled pursuant to this Agreement, it being understood that the provisions of this clause (f) shall be applied after determining Comcast Shareholder's aggregate share of any distributions. In the event the application of the first sentence of this Section 8.05(f) would result in both Comcast Spectacor Shareholder and Comcast AG Shareholder receiving distributions in excess of their respective then-current Capital Accounts (or in neither of Comcast Spectacor Shareholder and Comcast AG Shareholder being entitled to receive a distribution), the first sentence of this Section 8.05(f) shall not apply and (i) Comcast Shareholder's share of distributions (whether in cash or in kind) attributable to the Investment in Spectra shall be made solely to Comcast Spectacor Shareholder and (ii) Comcast Shareholder's share of any distribution of cash other than a distribution of cash attributable to the Investment in Spectra shall be made solely to Comcast AG Shareholder.

g. *Optional Share Repurchase*.

i. Notwithstanding anything to the contrary in this Agreement, the Board in its discretion may elect to cause the Company to return amounts under this Article 8 to a Shareholder either (A) by distribution to such Shareholder or (B) by a repurchase of such Shareholder's Class I and/or Class II Shares, as applicable, and in the case of any such repurchase, in a manner intended to result in economic consistency with the distribution provisions of Section 8.02 (where, for the avoidance of doubt, each Comcast Shareholder, as applicable, and ManagementCo Shareholder shall receive proceeds in respect of any such repurchase equal to the amount such Shareholder would have been distributed pursuant to Section 8.02 with respect to the distribution event giving rise to such repurchase).

ii. In the event the Board elects with respect to any distribution event to cause amounts to be returned by a repurchase of Shares, the Board shall first cause to be calculated, in accordance with Section 8.02, the amounts to be returned to each Shareholder pursuant to each Distribution Tier (such calculated amount with respect to

iii.

each Shareholder and each Distribution Tier, a "**Distribution Tier Return Amount**"), and based upon the Distribution Tier Return Amounts with respect to such distribution event, the Board shall cause to be calculated the applicable Asset Ratios.

iv. The Board shall then cause the Company to repurchase from each Shareholder otherwise entitled to receive a Distribution at such time, on a Repurchase Class-by-Repurchase Class basis, such number of Shares equal to (x) the Asset Ratio for the applicable Repurchase Class held by such Shareholder applied to (y) the total outstanding Shares of such Repurchase Class. Notwithstanding anything to the contrary in this Agreement, including this Section 8.05(g)(iii), if the application of this Section 8.05(g) to any Shareholder with respect to any distribution event would otherwise result in such Shareholder holding less than one whole Share of any class prior to the time at which such Shareholder would cease to have any future rights to distributions in respect of such class of Shares (determined as though this Section 8.05(g) were never included in this Agreement), then the number of Shares of such class repurchased from such Shareholder in connection with such distribution event shall be reduced as necessary to cause such Shareholder to retain one whole Share of such class.

v. A repurchase of a Shareholder's Class I Shares or Class II Shares shall otherwise be treated as a "distribution" hereunder, and the Board shall have the power and authority, without the consent of any Shareholder, to interpret in good faith any provision of this Agreement to give effect to the intent of this Section 8.05(g). For the avoidance of doubt, in connection with any repurchase of Shares in accordance with this Section 8.05(g), amounts otherwise distributable to a Shareholder at any Distribution Tier shall be treated as a "distribution" in respect of such Distribution Tier.

8.06. *Capital Account*. There shall be established for each Shareholder on the books and records of the Company a capital account (a "**Capital Account**"), the balance of which shall initially be zero. It is intended that each Shareholder's Capital Account shall be maintained at all times in a manner consistent with the principles of Section 704 of the Code and applicable U.S. Treasury Regulations thereunder, and that the provisions hereof relating to the Capital Accounts shall be interpreted in a manner consistent therewith. The Capital Account of each Shareholder shall be:

a. credited with the amount of cash contributed by such Shareholder, and if such Shareholder makes an in-kind contribution to the Company, with the Fair Market Value of the contributed property (net of any liabilities secured by such property that the Company assumes or to which such property is subject) as determined by the Manager in its reasonable discretion pursuant to Section 8.05(b));

b. credited with any allocations of income and gain that are made to such Shareholder pursuant to this Article 8;

c. debited by any allocations of loss or deduction that are made to such Shareholder pursuant to this Article 8; and

d. debited by the amount of cash, the fair value of other property as determined by the Manager in its reasonable discretion, distributed by the Company to such Shareholder (net of any liabilities of the Company assumed by such Shareholder and any liabilities to which such distributed property is subject).

Section 8.07. *Allocations*. Except as otherwise provided in this Article 8, as of the last day of each fiscal period, the Company's items of income, gain, loss and deduction for such period shall be allocated as follows:

a. Manager Expenses.

i. Any items of loss or deduction that are attributable to the Management Fee shall be allocated to the Comcast AG Shareholder.

ii. Any items of loss or deduction that are attributable to Company Expenses funded by or for the account of any Shareholder in accordance with Section 6.02 (for the avoidance of doubt, not to include any Management Fee) shall be allocated to such Shareholder.

b. *Profits and Losses.* After giving effect to Section 8.07(a), Profits or Losses for such fiscal period (and, if necessary, items of income, gain, loss or deduction included in the determination thereof) shall be allocated among the Shareholders in a manner consistent with the corresponding distributions made or to be made pursuant to this Article 8. Without limiting the generality of the foregoing, any allocation pursuant to this Section 8.07(b) shall be made in a manner such that each Shareholder's Capital Account balance, immediately after such allocation, is as nearly as possible (and proportionately as nearly as possible with respect to all Shareholders' Capital Accounts) equal to (i) the distributions that would be made to such Shareholder pursuant to the provisions of this Article 8 if, immediately after such allocation, the Company were wound up, all of its assets sold for cash equal to their Carrying Values and its liabilities settled (limited, in the case of any nonrecourse liability to the Carrying Values of the assets securing such liability) and the remaining proceeds derived from the hypothetical sale of assets were distributed pursuant to the provisions of this Article 8, *minus* (ii) the amount that such Shareholder would be obligated to contribute to the Company in connection with such hypothetical liquidation, including any amount that ManagementCo Shareholder would be required to contribute to the Company pursuant to Section 11.02, and any amount that such Shareholder would be deemed, immediately prior to the Company's hypothetical sale of assets, to be obligated to restore to the Company pursuant to the penultimate sentence of U.S. Treasury Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5), *plus* (iii) in the case of a Class I-A Shareholder, the amount that would be distributable to such Class I-A Shareholder pursuant to Section 11.02 in connection with such hypothetical liquidation.

c. Notwithstanding the foregoing or anything to the contrary in this Agreement, but subject to Section 8.08, the share of Profits or Losses for any fiscal period (and, if necessary, items of income, gain, loss or deduction included in the determination thereof) attributable to the Investment in Spectra and otherwise allocable to Comcast Shareholder will be allocated solely to Comcast Spectacor Shareholder (and not to Comcast AG Shareholder). All other Profits or Losses for any fiscal period (and, if necessary, items of income, gain, loss or deduction included in the determination thereof)

attributable to each of the Investments other than Spectra and otherwise allocable to Comcast Shareholder will be allocated solely to Comcast AG Shareholder (and not to Comcast Spectacor Shareholder) unless such allocation would cause Comcast AG

Shareholder to have a deficit Capital Account balance that is in excess of the amount the Comcast AG Shareholder is treated as being obligated to restore pursuant to the penultimate sentence of U.S. Treasury Regulations Section 1.704-2(g)(1) and 1.704-2(i)5), in which case such Profits or Losses will be allocated to Comcast Spectacor Shareholder.

Section 8.08. *Special Allocations*. Notwithstanding the provisions of Section 8.07, the following special allocations shall be made:

a. *Minimum Gain Chargebacks.* Items of Company income and gain shall be allocated among the Shareholders at such times and in such manner as may be necessary to satisfy the minimum gain chargeback requirements of U.S. Treasury Regulations Sections 1.704-2(f) and 1.704-2(i)(4).

b. *Qualified Income Offset.* Items of Company income and gain shall be allocated at such times and in such manner as may be necessary to satisfy the "qualified income offset" requirement of U.S. Treasury Regulations Section 1.704-1(b)(2)(ii)*(d)*.

c. *Nonrecourse Deductions.* To the extent that the allocation of any "nonrecourse deductions" (within the meaning of U.S. Treasury Regulations Section 1.704-2(b)(1)) would not otherwise satisfy the requirements of U.S. Treasury Regulations Section 1.704-2(e), such nonrecourse deductions shall be allocated in a manner that satisfies such requirements, as determined by the Manager in its reasonable discretion.

d. *Gross Income Allocation.* In the event that any Shareholder has, or would otherwise have, a deficit Capital Account balance that is in excess of the amount such Shareholder is treated as being obligated to restore pursuant to the penultimate sentences of U.S. Treasury Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5), items of Company income and gain in the amount of such excess shall be allocated to such Shareholder; *provided* that an allocation pursuant to this Section 8.08(d) shall be made only if and to the extent that such Shareholder would have such a deficit Capital Account balance after all other allocations provided for in this Article 8 have been made as if Section 8.08(b) and this Section 8.08(d) were not in this Agreement.

e. *Curative Allocations.* The allocations required pursuant to the preceding provisions of this Section 8.08 (the "**Regulatory Allocations**") shall be taken into account for purposes of allocating other items of income, gain, loss and deduction among the Shareholders so that each Shareholder's Capital Account balance is, to the extent possible, equal to the Capital Account balance such Shareholder would have had if the Regulatory Allocations were not part of this Agreement and all allocations were made pursuant to Section 8.07.

f. The Manager is authorized to modify any and all of the allocation provisions under Sections 8.07 and 8.08 to the extent that, in the reasonable judgment of the Manager and based upon advice of tax advisors to the Manager, such modifications

are necessary to reflect the economic entitlements of the Shareholders and to comply with Section 704 of the Code and applicable U.S. Treasury Regulations.

Section 8.09. *Revaluations*. Upon the occurrence of any event specified in U.S. Treasury Regulations Section 1.704-1(b)(2)(iv)(f), the Manager may cause the Capital Accounts of the Shareholders to be adjusted to reflect the Fair Market Value of the Company's assets at such time, as determined by the Manager in its reasonable discretion; *provided* that the Manager has received the prior written consent of Comcast AG Shareholder to such revaluation.

Section 8.10. *Tax Allocations*.

a. For U.S. federal, state and local income tax purposes, each item of income, gain, loss, deduction and credit of the Company shall be allocated among the Shareholders as nearly as possible in the same manner as the corresponding items are allocated pursuant to the other provisions of this Article 8.

b. All items of income, gain, loss and deduction with respect to any Company asset that has a Carrying Value that differs from its adjusted tax basis for U.S. federal income tax purposes shall be allocated so as to take into account the variation between the Carrying Value and the adjusted tax basis in accordance with the principles of Section 704(c) of the Code and the U.S. Treasury Regulations thereunder.

Section 8.11. *Change in Interests During a Tax Year*. If any Shareholder's interest in the Company changes during any Tax Year allocations pursuant to this Article 8 shall be made in a manner that takes into account the varying interest of the Shareholders in the Company during such Tax Year, as required by Section 706(d) of the Code, under such method as the Manager may determine in its reasonable discretion; *provided* that the Manager shall cause the Company to adopt the "closing-of-the-books" method for the allocation of any items of income, gain, loss or deduction attributable to a Transfer pursuant to Section 5.03.

ARTICLE 9
Right of First Offer

Section 9.01. *Right of First Offer.*

a. If the Company desires to Transfer any Portfolio Company Securities or any other assets or any controlled Portfolio Company desires to transfer all or substantially all of its assets (collectively, including Portfolio Company Securities, "**ROFO Assets**") to any Person (other than (i) the Transfer by the Company of Portfolio Company Securities and (ii) the Transfer by a Portfolio Company of assets that, in each case, have been pledged, encumbered or hypothecated to secure any Debt of the applicable Portfolio Company upon the exercise of remedies in respect thereof), the Company shall give notice (an "**Offer Notice**") to Comcast Shareholder that the

Company or such Portfolio Company desires to make such a Transfer and that sets forth the number and kind of ROFO Assets proposed to be Transferred by the Company or such Portfolio Company (the "**Offered ROFO Assets**"), the price at which the Company or such Portfolio Company proposes to Transfer such Offered ROFO Assets (the "**Offer Price**") and any other material terms and conditions of the proposed Transfer; *provided*, *however*, that the Company shall not be required to give an Offer Notice to Comcast Shareholder with respect to (and Comcast Shareholder shall have no right under this Section 9.01 with respect to) the proposed Transfer of any Portfolio Company Securities

if the Portfolio Company issuing such Portfolio Securities is not a Subsidiary of the Company (assuming solely for this purpose that the last sentence in the definition of the term "Subsidiary" in Section 1.01 were deleted) and the rights of Comcast under this Section 9.01 would be inconsistent with the terms of such Portfolio Securities or any contractual or other legally binding provision applicable to the Company or any of its Subsidiaries or to such Portfolio Securities; *provided, further*, that in connection with an Investment in a Portfolio Company that is not a Subsidiary of the Company (assuming solely for this purpose that the last sentence in the definition of the term "Subsidiary" in Section 1.01 were deleted), if the Manager determines in its good faith discretion that it would be reasonably likely through the exercise of commercially reasonable efforts to be able to make such Investment without accepting any such inconsistent terms or provisions so as to preserve Comcast Shareholder's rights under this Section 9.01, then the Company shall use commercially reasonable efforts to make such Investment without accepting any such inconsistent terms or provisions; *provided, further*, that notwithstanding the foregoing or anything to the contrary in this Agreement, the Manager shall interpret the provisions of this Article 9 to apply to Comcast Spectacor Shareholder solely with respect to the Investment in Spectra, and shall apply the provisions of the Agreement (including Section 10.08) in accordance with such interpretation.

b. The giving of an Offer Notice to Comcast Shareholder shall constitute an offer (the "**Offer**") by the Company or such Portfolio Company to Transfer all (but not less than all) of the Offered ROFO Assets to Comcast Shareholder or an Affiliate of Comcast Shareholder designated by Comcast Shareholder ("**Comcast ROFO Purchaser**") for cash at the Offer Price applicable to such Offered ROFO Assets and otherwise on the terms and conditions set forth in the Offer Notice. Comcast ROFO Purchaser shall have a 30-day period (the "**Offer Period**") in which to accept such Offer by giving a notice of acceptance to the Company prior to the expiration of such Offer Period. If Comcast ROFO Purchaser fails to notify the Company, prior to the expiration of the Offer Period, of acceptance of the terms of the Offer, Comcast ROFO Purchaser shall be deemed to have declined the Offer with respect to such portion of the Offered ROFO Assets.

c. The Company shall provide, and shall cause any controlled Portfolio Company and use reasonable best efforts to cause any other Portfolio Company to provide, to Comcast ROFO Purchaser all information it may reasonably request in the course of determining whether to accept any Offer.

d. If Comcast ROFO Purchaser elects to purchase any Offered ROFO Assets, Comcast ROFO Purchaser shall purchase and pay, by wire transfer of immediately available funds to an account designated by the Company, for such Offered ROFO Assets within 20 Business Days after the date on which Comcast ROFO Purchaser accepted the Offer pertaining to such Offered ROFO Assets; *provided* that, if the Transfer of such Offered ROFO Assets is subject to any prior regulatory approval, the time period during which such Transfer may be consummated shall be extended until the expiration of five Business Days after all such approvals shall have been received; *provided, further,* that in lieu of a payment of cash by Comcast ROFO Purchaser with respect to such Offered ROFO Assets, at the written request of the Comcast ROFO Purchaser, Comcast ROFO

Purchaser and the Company agree to use commercially reasonable efforts to devise and implement an alternative structure to Transfer such Offered ROFO Assets to Comcast ROFO Purchaser in a tax-efficient manner, *provided* such alternative structure places ManagementCo Shareholder in the same economic position (taking into account the tax consequences of the alternative structure as compared to the tax consequences of a payment of cash by Comcast ROFO Purchaser) as if Comcast ROFO Purchaser had purchased such Offered ROFO Assets in cash. Comcast ROFO Purchaser, the Company and all Shareholders of the Company shall cooperate, and the Company shall use commercially reasonable efforts to cause the Portfolio Company to cooperate, in good faith in implementing any alternative structure agreed to pursuant to this Section 9.01(d).

e. With respect to any Offered ROFO Assets, upon the earlier to occur of (i) rejection of the Offer pertaining to such Offered ROFO Assets by Comcast ROFO Purchaser and (ii) the ultimate failure to obtain any required consent or regulatory approval for the purchase of such Offered ROFO Assets by Comcast ROFO Purchaser, the Company or the applicable Portfolio Company shall have a 270-day period during which to effect a Transfer of such Offered ROFO Assets at a price not less than 95% of the Offer Price and otherwise on terms no less favorable to the Company or the applicable Portfolio Company than those set forth in the Offer Notice (other than in an immaterial respect); *provided* that, if the Company or the applicable Portfolio Company enters into a definitive agreement providing for the Transfer within such 270-day period and the Transfer is subject to regulatory approval, such 270-day period shall be extended until the expiration of five Business Days after all such approvals shall have been received, but in no event shall such regulatory extension exceed 120 days. If the Company or any Portfolio Company does not consummate the Transfer of any of the Offered ROFO Assets in accordance with the foregoing time limitations, then the right of the Company or such Portfolio Company to effect the Transfer of such Offered ROFO Assets pursuant to this Section 9.01(e) shall terminate and the Company and such Portfolio Company shall again comply with the procedures set forth in this Section 9.01(e) with respect to any proposed Transfer of Offered ROFO Assets to any Person.

Article 1

Article 10

Certain Covenants and Agreements

Section 10.01. *Confidentiality*.

(a) Comcast Shareholder shall, and shall cause each of its Affiliates and Representatives to, maintain the confidentiality of and not use for any purpose (other than in connection with the matters contemplated by this Agreement) any information furnished to it under this Agreement or by or on behalf of the Company, including any information regarding the Company's Investments, Portfolio Companies or prospective Investments or Portfolio Companies (collectively, the "**Company Confidential Information**"); *provided* that Company Confidential Information shall not include information that (1) is or becomes generally available to the public other than as a result of a disclosure by Comcast Shareholder or any of the directors, officers, employees, stockholders, members, partners, agents, counsel, investment and financial advisers, accountants, auditors or other representatives (all such persons being collectively referred

to as "**Representatives**") of Comcast Shareholder in violation of this Agreement, (2) was available to Comcast Shareholder on a non-confidential basis prior to its disclosure to Comcast Shareholder or its Representatives by the Company, (3) was obtained by Comcast Shareholder from a third party who, insofar as known to Comcast Shareholder, is not prohibited from transmitting the information to Comcast Shareholder by a contractual, legal or fiduciary obligation to the Company or any of its Affiliates or (4) is necessary in connection with a tax audit; *provided, further*, that Comcast Shareholder may disclose Company Confidential Information:

(i) to its Representatives in the normal course of the performance of their duties or to any financial institution providing or that may provide credit to Comcast Shareholder or any of its Affiliates (provided that such information is maintained in confidence by the party to whom it is disclosed in accordance with the provisions of this Section 10.01(a) and Comcast shall be responsible for the failure of any such party to maintain such information in confidence);

(ii) to the extent required by Applicable Law, including any listing agreement with any national securities exchange (including complying with any oral or written questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process to which Comcast Shareholder or any of its Affiliates is subject; *provided* that (except with respect to any matters covered by clause (iii) below) Comcast Shareholder agrees to give the Company prompt notice of such request, to the extent practicable, so that the Company may seek an appropriate protective order or similar relief);

(iii) to any regulatory authority or rating agency to which Comcast Shareholder or any of its Affiliates is subject or with which it has regular dealings; *provided* that such authority or agency is advised of the confidential nature of the Company Confidential Information;

(iv) to the extent related to the tax treatment and tax structure of the transactions contemplated by this Agreement; *provided* that the foregoing does not constitute an authorization to disclose information identifying any party to this Agreement or any Affiliate of a party (except to the extent relating to such tax structure or tax treatment) or any Company Confidential Information unrelated to such tax structure or tax treatment; or

(v) if the prior written consent of the Company shall have been obtained.

Nothing contained herein shall prevent the use (subject, to the extent possible, to a protective order) of Company Confidential Information in connection with the assertion or defense of any claim by or against the Company or any Shareholder.

(b) The Company shall, and shall cause each of its Affiliates and Representatives to, maintain the confidentiality of and not use for any purpose (other than in connection with the matters contemplated by this Agreement) any information furnished to it regarding Comcast Shareholder or its Affiliates under

this Agreement (collectively, "**Comcast Confidential Information**"); *provided* that Comcast Confidential Information shall not include information that (1) is or becomes generally available to the public other than as a result of a disclosure by the Company or its Affiliates or any of their Representatives in violation of this Agreement, (2) was available to the Company or its Affiliates on a non-confidential basis prior to its disclosure to the Company or its Representatives by Comcast Shareholder, (3) was obtained by the Company from a third party who, insofar as known to the Company, is not prohibited from transmitting the information to the Company by a contractual, legal or fiduciary obligation to Comcast Shareholder or any of its Affiliates or (4) is necessary in connection with a tax audit; *provided*, *however*, that the Manager may disclose such information:

(i) to its Representatives in the normal course of the performance of their duties or to any financial institution providing or that may provide credit to the Company or any of its Affiliates (*provided* that such information is maintained in confidence by the party to whom it is disclosed in accordance with the provisions of this Section 10.01(b) and the Company shall be responsible for the failure of any such party to maintain such information in confidence);

(ii) to the extent required by Applicable Law (including complying with any oral or written questions, interrogatories, requests for information or documents, subpoena, civil investigative demand or similar process to which the Company or any of its Affiliates is subject; *provided* that (except with respect to any matters covered by clause (iii) below) the Company agrees to give Comcast Shareholder prompt notice of such request, to the extent practicable, so that Comcast Shareholder may seek an appropriate protective order or similar relief);

(iii) to any regulatory authority or rating agency to which the Company, the Manager or any of their respective Affiliates is subject or with which it has regular dealings; *provided* that such authority or agency is advised of the confidential nature of the Comcast Confidential Information;

(iv) to the extent related to the tax treatment and tax structure of the transactions contemplated by this Agreement; *provided* that the foregoing does not constitute an authorization to disclose information identifying any party to this Agreement or any Affiliate of a party (except to the extent relating to such tax structure or tax treatment) or any Comcast Confidential Information unrelated to such tax structure or tax treatment; or

(v) if the prior written consent of Comcast AG Shareholder shall have been obtained.

Nothing contained herein shall prevent the use (subject, to the extent possible, to a protective order) of Comcast Confidential Information in connection with the assertion or defense of any claim by or against the Company or any Shareholder.

(c) Each Shareholder and the Company shall consult with the others before issuing any press release or making any public statement with respect to this agreement or the transactions contemplated hereby, except as may be required by Applicable Law, including any listing agreement with any national securities exchange; *provided*, that any press release or public statement issued by the

Company or its Affiliates shall require Comcast AG Shareholder's prior written approval if it (i) refers to Comcast, either Comcast Shareholder or any of their Affiliates or (ii) discloses any information regarding the aggregate financial performance of the Company (for the avoidance of doubt, not including the financial performance of, or the financial terms of the acquisition or disposition of, any individual Investment) for any period and is made prior to the time at which Comcast has publicly disclosed its financial results for such period. For the avoidance of doubt, the parties agree that press releases issued by, or other public statements made by, the Company regarding matters in the ordinary course of the Company's business (including any press releases or statements regarding acquisitions or dispositions of Investments, hiring of personnel and other similar matters) shall not be deemed to be a press release or other public statement with respect to the "transactions contemplated hereby" within the meaning of the immediately preceding sentence.

(d) Notwithstanding anything herein to the contrary, Comcast Shareholder's and its Representatives' obligations in this Section 10.01 shall, in each case, not be deemed to be breached by any disclosure by NBCUniversal Media, LLC or any other of Comcast Shareholder's Affiliates in the ordinary course of their business of disseminating news and information; *provided* that the individuals involved in such dissemination received such Company Confidential Information from a source other than the personnel of Comcast Shareholder or its Representatives involved in the matters contemplated by this Agreement.

Section 10.02. *Reports*.

a. The Company agrees to furnish to each Shareholder:

i. to the extent such information is available, as soon as practicable and, in any event, within 45 days after the end of each fiscal month, the summary financial information, prepared for internal reporting purposes, of the Company and its consolidated Subsidiaries (assuming, for all purposes of this Section 10.02 and Section 10.03 that the last sentence in the definition of the term "Subsidiary" in Section 1.01 were deleted) as at the end of and for such month;

ii. as soon as practicable and, in any event, within 45 days after the end of each fiscal quarter of each fiscal year, the unaudited consolidated balance sheet of the Company and its consolidated Subsidiaries as at the end of such quarter and the related unaudited statement of operations and cash flow for such quarter and for the portion of the fiscal year then ended, in each case prepared in accordance with GAAP; and

iii. as soon as practicable and, in any event, within 90 days after the end of each fiscal year, (A) the audited consolidated balance sheet of the Company and its consolidated Subsidiaries as at the end of such fiscal year and the related audited statement of operations and cash flow for such fiscal year, and for the portion of the fiscal year then ended, in each case prepared in accordance with GAAP and certified by

Deloitte & Touche LLP or another firm of independent public accountants of nationally recognized standing.

b. The Company shall:

i. permit Comcast Shareholder, its independent public accountants and its other Representatives, upon reasonable prior notice and during normal business hours, to examine the books, records and accounts of the Company; and

ii. permit Comcast Shareholder and its Representatives, upon reasonable prior notice and during normal business hours, to visit and inspect any of the properties of the Company and discuss the affairs, finances and accounts of the Company with the independent certified public accountants of the Company for purposes which may include procedures performed in connection with Comcast's evaluation of internal controls pursuant to Section 404 of the Sarbanes Oxley Act of 2002; *provided* that such investigation does not unreasonably interfere with the operations of the Company.

Section 10.03. *Other Information and Assistance*. If at any time the Company and its consolidated Subsidiaries are or will be consolidated in Comcast's statement of financial position (it being understood that the determination of whether the Company and its consolidated Subsidiaries are so consolidated shall be made by Comcast in its sole judgment), the Company shall, shall cause its consolidated Subsidiaries to and shall use reasonable best efforts to cause Deloitte & Touche LLP or another firm of independent public accountants of nationally recognized standing to provide all other financial information and assistance as reasonably requested by Comcast for purposes of preparing such consolidated financial statements and management's report on internal control over financial reporting and complying with Comcast's related obligations under Applicable Law, including the Exchange Act and the Sarbanes Oxley Act of 2002. Comcast shall reimburse the Company and its consolidated Subsidiaries for all out-of-pocket expenses incurred in providing any financial information and assistance under this Section 10.03 that is not otherwise required to be provided under Section 10.02.

Section 10.04. *Conflicting Agreements*. The Company and each Shareholder represents and agrees that it shall not (i) grant any proxy or enter into or agree to be bound by any voting trust or agreement with respect to the Company Securities, except as expressly

contemplated by this Agreement, or (ii) enter into any agreement or arrangement of any kind with any Person with respect to any Company Securities inconsistent with the provisions of this Agreement or for the purpose or with the effect of denying or reducing the rights of any other Shareholder under this Agreement, including agreements or arrangements with respect to the Transfer or voting of its Company Securities.

Section 10.05. Business Opportunity. The Company and each of the Shareholders recognize and acknowledge that (x) the Company, Comcast Shareholder and their Affiliates engage, or intend to engage, in a wide variety of activities, (y) some of these activities presently or may in the future involve the participation in businesses and activities that may be similar to those of the Company and its Subsidiaries and Portfolio Companies, on the one hand, or Comcast Shareholder and its Affiliates, on the other

hand, and (z) subject to the terms of this Agreement, it is critical that the Company, Comcast Shareholder and their Affiliates be permitted to continue to develop their current and future business and investment activities without any restriction. In light of the foregoing considerations, the Company and each of the Shareholders acknowledge and agree as follows:

a. To the fullest extent permitted by Applicable Law, except as otherwise provided in Article 4 or Section 10.18, the doctrine of corporate opportunity, or any other analogous doctrine, shall not apply with respect to the Company or any Shareholder. Except as otherwise provided in Article 4 or Section 10.18, (x) no Shareholder nor any of its Affiliates shall have any obligation to refrain from (i) engaging in the same or similar activities or lines of business as the Company or any Portfolio Company or developing or marketing any products or services that compete, directly or indirectly, with those of the Company or any Portfolio Company, (ii) investing or owning any interest publicly or privately in, or developing a business relationship with, any Person engaged in the same or similar activities or lines of business as, or otherwise in competition with, the Company or any Portfolio Company or (iii) employing or otherwise engaging a former officer or employee of the Company or any Portfolio Company and (y) neither the Company nor any of its Affiliates shall have any obligation to refrain from (i) engaging in the same or similar activities or lines of business as any Shareholder or any of its Affiliates or developing or marketing any products or services that compete, directly or indirectly, with those of any Shareholder or any of its Affiliates or (ii) investing or owning any interest publicly or privately in, or developing a business relationship with, any Person engaged in the same or similar activities or lines of business as, or otherwise in competition with, any Shareholder or any of its Affiliates.

b. Notwithstanding any duty otherwise existing under Applicable Law or in equity, to the fullest extent permitted by Applicable Law, except as otherwise provided in Article 4 or Section 10.18, if the Company or any of its Affiliates, Subsidiaries or Portfolio Companies, or Comcast Shareholder or any of its Affiliates, as the case may be, acquires knowledge of a potential transaction or matter which may be a business opportunity for both the Company or its Affiliates, Subsidiaries or Portfolio Companies, on the one hand, and Comcast Shareholder or its Affiliates, on the other hand, neither the Company or any such Affiliate, Subsidiary or Portfolio Company of the Company, nor
Comcast Shareholder or any such Affiliate of Comcast Shareholder, as the case may be, shall have a duty to communicate or offer such business opportunity to the other, and neither the Company or any such Affiliate, Subsidiary or Portfolio Company of the Company, nor Comcast Shareholder or any such Affiliate of Comcast Shareholder, as the case may be, shall be liable to the other in respect of any such matter (including for any breach of fiduciary or other duties) by reason of the fact that the Company or any of its Affiliates, Subsidiaries or Portfolio Companies, or Comcast Shareholder or any of its Affiliates, as the case may be, pursues or acquires such business opportunity for itself.

Section 10.06. Indemnification; Exculpation; Advancement of Expenses.

a. The Company shall indemnify, and hold harmless each Indemnified Party from and against any and all damage, loss, liability and expense (including reasonable expenses of investigation and reasonable attorneys' fees and expenses) incurred by such

Indemnified Party before, on or after the date of this Agreement (collectively, the "**Indemnified Liabilities**"), arising out of any actual or threatened action, cause of action, suit, proceeding or claim arising directly or indirectly out of such Indemnified Party's or any related Indemnified Party's ownership of Company Securities, status as a shareholder or Manager, actual, alleged or deemed control or ability to influence the Company or any of its Subsidiaries or Portfolio Companies or actual or alleged act or omission in connection with the Company or any of its Subsidiaries or the direct or indirect Investments or prospective Investments or other business, activities, operations or affairs of the Company or any of its Subsidiaries (other than any such Indemnified Liabilities in respect of any act or omission constituting fraud, willful misconduct or recklessness), including with respect to any criminal action or proceeding, any act or omission taken by such Indemnified Party without reasonable cause to believe such conduct was unlawful and including any Indemnified Liabilities arising under Title IV of the Employee Retirement Income Security Act of 1974; *provided* that if and to the extent that the foregoing undertaking may be unavailable or unenforceable for any reason, the Company hereby agrees to make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities which is permissible under Applicable Law.

Notwithstanding the foregoing provisions of this Section 10.06(a), no Indemnified Party shall be entitled to any indemnification or contribution under this Section 10.06(a) in respect of any Indemnified Liabilities consisting of an investment or other loss in respect of any Company Assets or otherwise attributable to any such loss (including any diminution in the value of the investment of a Shareholder in the Company). Nothing in the immediately preceding sentence shall be deemed to limit (i) a Shareholder's right to make any claim in respect of any investment or other loss in respect of any Company Assets that such Shareholder would be entitled to make if the immediately preceding sentence was not included in this Agreement and such Shareholder was not an Indemnified Party or (ii) each Manager Indemnified Party's right to indemnification or contribution pursuant to Section 10.06(a) in respect of any Indemnified Liabilities consisting of any other Person's (including any other Manager Indemnified Party's) investment or other loss in respect of any Company Assets or otherwise attributable to any such loss.

b. The right to indemnification conferred in Section 10.06(a) shall also include the right to be paid by the Company the expenses (including reasonable expenses of investigation and reasonable attorneys' fees and expenses) incurred in connection with such action, cause of action, suit, proceeding or claim in advance of its final disposition to the fullest extent permitted by Applicable Law; *provided* that the payment of such expenses in advance of the final disposition of an action, cause of action, suit, proceeding or claim shall be made only upon delivery to the Company of an undertaking by or on behalf of the Indemnified Party to repay all amounts so paid in advance if it shall be determined by a court or other tribunal of proper jurisdiction that such Indemnified Party is not entitled to indemnification under Section 10.06(a).

c. Each Indemnified Party may consult with recognized, outside legal counsel, accountants and other professional advisors selected by the Company; and any action or omission taken or suffered in good faith in reliance and in accordance with the opinion or advice of such counsel, accountants or other professional advisors (which the Indemnified Party reasonably believes to be an opinion or advice within such advisor's professional competence) shall be conclusive evidence that such action or omission did not constitute fraud, willful misconduct or recklessness, and with respect to any criminal action or proceeding, was taken or suffered without reasonable cause to believe such Indemnified Party's conduct was unlawful. Unless there is a specific finding of fraud, willful misconduct, recklessness or reasonable cause by a party to believe that such party's conduct was unlawful (or where such a finding is an essential element of a judgment or order), the termination of any action, suit or proceeding by judgment, order or settlement, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption for purposes of Section 10.06(a) that the party in question acted fraudulently, engaged in willful misconduct, was reckless, or with respect to any criminal action or proceeding, had reasonable cause to believe that such party's conduct was unlawful.

d. Notwithstanding the foregoing provisions of this Section 10.06, if an Indemnified Party may be entitled to be indemnified by a Portfolio Company, is insured by an insurer providing insurance coverage under an insurance policy issued to such Portfolio Company and/or may be entitled to be indemnified by any Upper Tier Indemnitor for any damages, losses, liabilities or expenses as to which such Indemnified Party also would be entitled to be indemnified by the Company pursuant to the foregoing provisions of this Section 10.06 (i) it is intended that as among such Upper Tier Indemnitor, the Company, and such Portfolio Company and its insurer, such Portfolio Company and its insurer will be the full indemnitor (or insurer) of first resort, the Company will be the full indemnitor of second resort, and such Upper Tier Indemnitor will be the full indemnitor of third resort for any such damages, losses, liabilities or expenses; (ii) any amount that the Company is otherwise obligated to pay with respect to indemnification or advancement for such liabilities, expenses or losses will be reduced by the amount such Indemnified Party receives in respect of such indemnification, advancement or insurance from such Portfolio Company and/or its insurer; (iii) the Indemnified Party will not be required first to exhaust rights or remedies with respect to indemnification, advancement or insurance provided by such Portfolio Company and/or its insurer before the Company makes any payment to such Indemnified Party; (iv) if such Portfolio Company or its insurer does not promptly pay such indemnification, advancement or insurance to or on behalf of the Indemnified Party for any reason, the Indemnified Party will be entitled to pursue any rights to advancement or indemnification hereunder (subject to all of the terms and conditions of this Section 10.06); and (v) if the Company indemnifies, or advances payment for expenses to, such Indemnified Party with respect to any damages, losses, liabilities or expenses, and such Indemnified Party may be entitled to indemnification, advancement of expenses or insurance from such Portfolio Company or its insurer, the Company may request that such Indemnified Party agree with the Company that (x) the Company will be fully subrogated to all rights of such Indemnified Party to indemnification, advancement of expenses or insurance from such

Portfolio Company and its insurer with respect to such payment; (y) such Indemnified Party will assign to the Company all of the Indemnified Party's rights to indemnification, advancement of expenses or insurance from such Portfolio Company and its insurer; and (z) such Indemnified Party will execute all documents and take all other actions appropriate to effectuate the foregoing clauses (x) and (y). For purposes of this Section 10.06, the term "**Upper Tier Indemnitor**" means the Manager, ManagementCo Shareholder or any of their respective Affiliates, other than the Company or any Portfolio Company. In addition, solely for the purposes of this Section 10.06, the term "**Portfolio Company**" shall include the Person which is the Portfolio Company in accordance with the definition of such term set forth in Section 1.01 of this Agreement and each Subsidiary of such Person and any Affiliate of such Person which is controlled by such Person.

e. To the fullest extent permitted by Applicable Law, no Indemnified Party shall be liable to the Company or its Subsidiaries or any other Shareholder for any actual or alleged act or omission arising directly or indirectly out of such Indemnified Party's or any other Indemnified Party's ownership of Company Securities, status as a shareholder or Manager, actual, alleged or deemed control or ability to influence the Company or any of its Subsidiaries or Portfolio Companies or actual or alleged act or omission in connection with the Company or any of its Subsidiaries or the direct or indirect Investments or prospective Investments or other business, activities, operations or affairs of the Company or any of its Subsidiaries (other than any such liabilities in respect of any act or omission constituting fraud, willful misconduct or recklessness), including with respect to any criminal action or proceeding, any act or omission taken by such Indemnified Party without reasonable cause to believe such conduct was unlawful. For the avoidance of doubt, the provisions of this Section 10.06(e) shall not relieve any Indemnified Party for such Indemnified Party's contractual obligations to the Company as set forth in this Agreement or such Indemnified Party's contractual obligations to the Company, any Subsidiary of the Company or any Shareholder set forth in any other agreement to which any Indemnified Party may now be or in the future become party to with the Company, any Subsidiary of the Company or any Shareholder.

f. To the extent that, at law or in equity, any Indemnified Party has duties (including fiduciary duties) and liabilities relating thereto to the Company or any of its Subsidiaries or the Shareholders, none of the Manager, the ManagementCo Shareholder or any other Manager Indemnified Party acting in connection with the business or affairs of the Company or its Subsidiaries shall be liable to the Company or any of its Subsidiaries or any Shareholder for its good faith reliance on the provisions of this Agreement. The provisions of this Agreement, to the extent that they restrict the duties and liabilities of any Manager Indemnified Party otherwise existing at law or in equity, are agreed by the Shareholders to replace such other duties and liabilities of such Manager Indemnified Party.

g. The rights of any Indemnified Party to indemnification, exculpation and advancement of expenses hereunder will be in addition to any other rights any such Person may have under any other agreement or instrument to which such Indemnified Party is or becomes a party or is or otherwise becomes a beneficiary or under Applicable Law or under the Memorandum and Articles of Association or the certificate of

incorporation or bylaws or other organizational documents of any of the Subsidiaries of the Company or any other Person. The provisions of this Section 10.06 shall continue to afford protection to each Indemnified Party in respect of any act or omissions occurring while such Indemnified Party occupied the position or had the capacity pursuant to which such Indemnified Party became entitled to indemnification, exculpation and advancement of expenses under this Section 10.06 regardless of whether such Indemnified Party remains in such position or capacity and regardless of any subsequent amendment to this Agreement. No amendment to this Agreement shall reduce or restrict the extent to which these indemnification, exculpation and advancement provisions apply to actions or omissions occurring prior to the date of such amendment. The provisions of this Section 10.06 shall inure to the benefit of the successors, assigns, heirs and personal representatives of the Indemnified Parties, and the provisions of and rights under this Section 10.06 shall survive the winding up and termination of the Company.

h. Each of the Indemnified Parties shall be a third party beneficiary of the rights conferred to such Indemnified Party in this Section 10.06.

i. Notwithstanding anything to the contrary in the foregoing provisions of this Section 10.06, a present or former partner, stockholder, member, director, officer, fiduciary, manager, controlling Person, employee and agent of the Manager, ManagementCo Shareholder or any Affiliate of the Manager or ManagementCo Shareholder shall not be entitled to indemnification, exculpation or advancement of expenses in respect of any controversy relating to any employment or similar service relationship or the termination of any such relationship or in respect of any claim or cause of action brought against the Manager, ManagementCo Shareholder or the Company or any other Affiliate of the Manager or ManagementCo Shareholder, other than a claim or cause of action for indemnification, exculpation or advancement of expenses to which any such Person is otherwise entitled under the provisions of this Section 10.06 or under any other agreement or instrument to which such Person is or becomes a party or is or otherwise becomes a beneficiary or under Applicable Law or under the Memorandum and Articles of Association or the certificate of incorporation or bylaws or other organizational documents of any of the Subsidiaries of the Company or any other Person.

Section 10.07. *Co-Investors*.

a. If the Manager determines that it would be advisable to include any co-investors in connection with any Investment (including, for the avoidance of doubt, any equity investment in a Portfolio Company after the Company's initial Investment in such Portfolio Company) (any such co-investment opportunity, a "**Co-Investment Opportunity**"), it shall offer such Co-Investment Opportunity to Comcast AG Shareholder or an Affiliate of Comcast AG Shareholder designated by Comcast AG Shareholder prior to offering such Co-Investment Opportunity to any other Person; *provided*, *however*, that in the event the Manager determines that it would be advisable to include in respect of any Co-Investment Opportunity one or more strategic co-investors, it may offer up to 50% of any such Co-Investment Opportunity to such strategic co-investor(s), with the balance of such Co-Investment Opportunity offered to Comcast AG Shareholder or its designated Affiliate; *provided*, *further*, that (i) in no event shall the Manager offer all or any portion of any Co-Investment Opportunity in the United States

to any person set forth on Schedule IV (each Person set forth on Schedule IV, a "**Prohibited Co-Investor**"), regardless of whether such Co-Investment Opportunity is first offered to Comcast AG Shareholder or its designated Affiliate and (ii) the Manager shall only offer all or any portion of any Co-Investment Opportunity not in the United States to a Prohibited Co-Investor if such Co-Investment Opportunity is first offered to Comcast AG Shareholder or its designated Affiliate and such Persons decline to accept any portion of such Co-Investment Opportunity.

b. Notwithstanding Section 10.07(a), prior to offering all or any portion of a Co-Investment Opportunity to Comcast AG Shareholder (or any permissible strategic co-investor), the Manager may offer such Co-Investment Opportunity to (i) rollover investors, (ii) management investors and (iii) bona fide sources of financing; *provided* that, in the case of this clause (iii), (A) such financing source customarily provides financing of the type comprising such Co-Investment Opportunity, (B) the type of financing being provided by such financing source and comprising such Co-Investment Opportunity customarily includes an equity component and (C) such financing source is not a Prohibited Co-Investor.

c. The procedures set forth in Section 9.01 shall apply, *mutatis mutandis*, to any offer of a Co-Investment Opportunity to Comcast AG Shareholder; *provided* that, in the event that it is not commercially practicable under the circumstances for Comcast AG Shareholder to have 30 days to accept such offer, then Comcast AG Shareholder shall have such amount of time to accept such offer as determined by the Manager and set forth in the offer notice, but not less than 10 Business Days.

Section 10.08. Additional Comcast Rights. In the event that Comcast determines, in its good faith judgment, that (i) the Company and its consolidated Subsidiaries will be consolidated in Comcast's statement of financial position and (ii) such consolidation is resulting or would be reasonably likely to result in significant adverse consequences to Comcast (including, by way of example, adverse impacts on Comcast's credit rating or borrowing terms):

a. if the Company is not then and is not reasonably likely to become an "investment company" under the Investment Company Act of 1940 (as determined in

good faith by the Manager), (x) Comcast will be permitted to effect a spinoff of its interest in the Company to Comcast shareholders provided that the spinoff entity has the financial wherewithal to meet its obligations under this Agreement, it being understood that (A) ManagementCo Shareholder will not be obligated to agree to changes to its governance or economic rights set forth in this Agreement and the Manager will not be obligated to agree to changes to its governance or economic rights set forth in the Management Agreement, (B) the rights of Comcast Shareholder pursuant to Article 9 shall be retained by Comcast Shareholder post-spinoff but shall apply only to assets held by the Company at the time of the spinoff and not to subsequently acquired assets and (C) Comcast will not be permitted to effect a spinoff if the consummation of the spinoff would, or would be reasonably likely to, result in any significant adverse consequences to the Company, ManagementCo Shareholder or the Manager (with the sole fact of the

creation of the new public company itself not constituting such a significant adverse effect), and (y) the Company, ManagementCo Shareholder and the Manager will cooperate with Comcast to facilitate such a spinoff;

b. if the Company is then such an "investment company" or is reasonably likely to become such an "investment company" (as determined in good faith by the Manager), ManagementCo Shareholder, the Manager and the Company will use their good faith efforts (in collaboration with Comcast) to determine whether there are reasonable available actions that can be taken to address the adverse consequences affecting Comcast (but, for the avoidance of doubt, in such circumstances, it shall not be considered reasonable to effect a spinoff of the type referenced in clause (a) or any alternative public offering unless other reasonable actions are available so that, in the good faith judgment of the Manager, the Company will not, at the time of any such spinoff or alternative public offering, be or be reasonably likely to become an "investment company") and, if such available actions are determined to exist and Comcast wishes to pursue such course of action, ManagementCo Shareholder, the Manager and the Company will take such actions; *provided* that, in connection with the taking of any such action, ManagementCo Shareholder will not be obligated to agree to any changes to its governance or economic rights set forth in this Agreement, the Manager will not be obligated to agree to any changes to its governance or economic rights set forth in the Management Agreement and neither ManagementCo Shareholder nor the Manager will be obligated to pursue any action that would, or would be reasonably likely to, result in any other significant adverse consequences to the Company, ManagementCo Shareholder or the Manager; and

c. if Comcast elects to pursue the action described below in this clause (c) in preference to any available action under clause (a) or clause (b) or if there is no such other available action, Comcast will be permitted to Transfer up to 40% of the Comcast Rights and Obligations to a third party, with the transferee subject to the Board's consent (not to be unreasonably withheld or delayed); *provided* that, except as specified below, the Board shall not be entitled to withhold or delay its consent if the proposed transferee is a bona fide financial institution or investment firm or fund of national standing with the financial wherewithal to meet its related financial obligations (*i.e.*, Capital Commitment, Capital Contributions and Management Fee); *provided*, *further*, that in all cases, the

Board shall be entitled to withhold its consent if the transfer would result in, or be reasonably likely to result in, significant adverse consequences to the Company, ManagementCo Shareholder or the Manager with respect to regulatory, legal, tax or similar matters. Any Person to whom Comcast Transfers Comcast Rights and Obligations as permitted by this Section 10.08(c) shall be deemed to be (i) a "Shareholder" for all purposes hereof and (ii) "Comcast AG Shareholder", a "holder of Class I Shares" and a "holder of Class I-A Shares" to the extent of the transfer of Comcast Rights and Obligations pursuant to this Section 10.08(c), and shall execute a joinder to this Agreement in a form to be reasonably agreed by Comcast and the Company.

Section 10.09. Advisory Board. In the event the Company forms an advisory board in the future (the "**Advisory Board**"), such Advisory Board will advise the Company and consult with the Manager on such matters relating to the business of the Company and

the Portfolio Companies or this Agreement as the Manager may determine from time to time or any member of the Advisory Board may reasonably propose to the Manager; *provided* that any actions taken by the Advisory Board shall be advisory only, and neither the Company nor the Manager shall be required or otherwise bound to act in accordance with any such actions. The Comcast Chief Executive Officer (or a designee acceptable to the Manager) will be entitled to serve on any such Advisory Board. The Advisory Board shall otherwise consist of individuals selected by the Manager, in its reasonable discretion.

Section 10.10. Comcast Executive Committee. The Initial CEO, in his capacity as a representative of the Manager, is and will continue to be allocated time at relevant Comcast Executive Management Committee meetings to discuss potential Investments, opportunities and initiatives under consideration by the Company.

Section 10.11. Administrative Services. Comcast will provide or cause to be provided certain (to be mutually agreed) administrative services to the Company, ManagementCo Shareholder and the Manager on arm's-length terms pursuant to an administrative services agreement entered into among Comcast, the Management Shareholder and the Manager.

Section 10.12. Non-solicitation; Non-hire. AUTONFD3_TC Each of the Company, ManagementCo Shareholder and the Manager agrees that, without Comcast Shareholder's prior written consent, it will not, and will cause its Affiliates (and, in the case of the Company, its controlled Portfolio Companies and their respective Subsidiaries solely to the extent any such Portfolio Company or Subsidiary of a Portfolio Company is acting in concert with the Company, ManagementCo Shareholder or the Manager) not to, solicit for employment or employ any current or former senior employee of Comcast or any of its Affiliates; *provided* that this Section 10.12 shall not prohibit any such Person from (i) conducting a general solicitation or advertisement that is not directed at employees of Comcast or any of its Affiliates; *provided* that this clause (i) shall not permit the employment of any individuals who respond to such solicitation or advertisement; (ii) soliciting for employment or employing any individuals who have not been employed by Comcast or any of its Affiliates for a period of six months prior to the

date such individuals were first solicited for employment; (iii) soliciting for employment or employing any individuals whose employment with Comcast or any of its Affiliates is terminated by Comcast or any of its Affiliates without cause; or (iv) responding to unsolicited inquiries regarding employment; *provided* that this clause (iv) shall not permit the employment of any individuals making such unsolicited inquiries.

Section 10.13. *Accountants.* The Company agrees that Deloitte & Touche LLP will be appointed as initial independent certified public accountant for the Company and its consolidated Subsidiaries; *provided* that the Manager may thereafter appoint as independent certified public accountant for the Company and its consolidated Subsidiaries another of the "big four" nationally recognized independent public accounting firms if the Manager determines in its reasonable discretion that the pricing or services provided by Deloitte & Touche LLP are not satisfactory.

Section 10.14. *FCC Order; DOJ Order.* The Company acknowledges that it has received and reviewed that certain Memorandum Opinion and Order of the Federal

Communications Commission (In the Matter of Applications of Comcast Corporation, General Electric Company and NBC Universal, Inc.) as adopted on January 18, 2011 (the "**FCC Order**") and that certain Stipulation and Order of the United States District Court for the District of Columbia with respect to the January 18, 2011 [Proposed] Final Judgment of the Department of Justice and Certain States in the matter United States of America, et al., as Plaintiffs, v. Comcast Corporation, et al., as Defendants (the "**DOJ Order**" and together with the FCC Order, the "**Orders**"), has had the opportunity to discuss the Orders with counsel, and understands that the each of the Orders may subject the Company, its Subsidiaries and Portfolio Companies, and their respective businesses to certain conditions or requirements. The Company (i) shall comply with any and all applicable conditions or requirements set forth in the Orders, and (ii) shall cause each of its Covered Subsidiaries to contractually agree to comply with, and to comply with, any and all applicable conditions or requirements set forth in the Orders. "**Covered Subsidiaries**" means each of the Company's Subsidiaries and Portfolio Companies that (A) in the case of the FCC Order, is an Affiliate (as defined in the FCC Order) of Comcast or NBCUniversal Media LLC or (B) in the case of DOJ Order, in which Comcast or one of its Affiliates owns a 25% or greater interest or which Comcast or one of its Affiliates otherwise controls, and that, by the terms of an Order is subject to any conditions or requirements of such Order.

Section 10.15. *Non-Affiliation of Comcast and the Company*. Each of the parties acknowledges that Comcast Shareholder does not possess, directly or indirectly, the power to direct or cause the direction of the management and policies of the Company or any of its Affiliates and that, accordingly, where the term "affiliate" is based on the existence of a control relationship, (i) neither the Company nor any of its Affiliates is an "affiliate" of Comcast Shareholder or any of its Affiliates or has the authority to bind Comcast Shareholder or any of its Affiliates and (ii) neither Comcast Shareholder nor any of its Affiliates is an "affiliate" of the Company or any of its Affiliates or has the authority to bind the Company or any of its Affiliates. Comcast Shareholder, on the one hand, and the Company, on the other hand, will at all times act (and cause their Affiliates to act) in a manner consistent with the foregoing principle, and the Company shall use commercially reasonable efforts to cause any controlled Portfolio Companies to act in a manner consistent with the foregoing principle.

Section 10.16. *HSR Filings.* The Company agrees that any filing by the Company pursuant to the Hart-Scott-Rodino Antitrust Improvements Act of 1976 (as in effect from time to time) shall include a cover letter explaining the relationship of Comcast and the Company in a form to be mutually agreed by the Company and Comcast Shareholder.

Section 10.17. Manager and ManagementCo Shareholder Actions Requiring Consent.

a. Each of the Manager and ManagementCo Shareholder, as applicable, agrees that it shall not take any of the following actions without the approval of Comcast AG Shareholder:

i. the admission of investors other than employees of the Manager in the Manager or ManagementCo Shareholder (other than trusts, estate planning vehicles or

similar entities established as contemplated by the partnership agreement of the Manager or the ManagementCo Shareholder Partnership Agreement);

ii. the pledge by ManagementCo Shareholder of its interest in the Class II Shares; and

iii. the public offering of securities issued by the Manager or ManagementCo Shareholder.

b. In the event that Comcast AG Shareholder determines not to grant its consent to a proposed action pursuant to Section 10.17(a), the Manager and Comcast AG Shareholder shall discuss the reasons for such withholding of consent and will consider in good faith whether there are alternative approaches that might address Comcast AG Shareholder's concerns while permitting (a possibly modified version of) the proposed action to go forward.

Section 10.18. *Exclusivity*. The Manager agrees that, for the term of the Management Agreement, the Manager will not have investment advisory or similar arrangements with any Persons other than the Company.

Section 10.19. *Certain Tax Matters*.

a.

i. The Manager shall cause to be prepared and timely filed all tax returns required to be filed for each Company Entity; *provided, however*, that prior to the filing of any federal income tax return of any Company Entity (including such Company Entity's Internal Revenue Service Form 1065, if applicable), any material foreign, state or local income tax return of a Company Entity, or any material franchise tax return of a Company Entity, Comcast AG Shareholder shall be entitled to review and consult with

the applicable Company Entity, as appropriate, with respect to such tax returns, which shall be provided to Comcast AG Shareholder no less than 60 days prior to the applicable due date. Comcast AG Shareholder shall have the right to dispute any such tax return provided to Comcast AG Shareholder with respect to any significant issue or item. If Comcast AG Shareholder disputes any such tax return by delivering a written notice thereof to the Manager, within 30 days following receipt of such tax return, the Comcast AG Shareholder, the Company and the Manager shall, and the Manager shall cause the relevant Company Entity to, use commercially reasonable efforts to resolve the dispute. If the dispute is not resolved within 10 days following receipt of a written notice of a dispute from Comcast AG Shareholder, the dispute shall be referred to a firm of independent public accountants of nationally recognized standing and with relevant expertise, mutually acceptable to the applicable Company Entity and Comcast AG Shareholder. Such accounting firm shall use commercially reasonable effort to resolve

the dispute prior to the due date of the disputed tax return, and such accounting firm's conclusions shall be binding on the relevant Company Entity and the Comcast AG Shareholder. If such accounting firm cannot resolve the dispute prior to the due date of the disputed tax return, such tax return will be filed as originally proposed by the relevant Company Entity, and the applicable Company Entity shall file an amended tax return, within 10 days of such accounting firm's resolution, reflecting the conclusion of such accounting firm. Any incremental out-of-pocket expenses incurred by any Company Entity or the Manager relating to Comcast AG Shareholder's dispute of any tax return, including the fees and expenses of the accounting firm's review of any dispute with respect to a tax return, shall be reimbursed by the Comcast AG Shareholder. The Company, the Manager and Comcast AG Shareholder shall work together in good faith to procure that any such expenses (and any other incremental out-of-pocket expenses that are to be reimbursed by Comcast AG Shareholder pursuant to any provision of this Section 10.19) are reasonable in amount.

ii. At the request of Comcast AG Shareholder, the Manager shall use commercially reasonable efforts to provide information reasonably requested by Comcast AG Shareholder for purposes of determining whether a Controlled Portfolio Company is required by Applicable Law to be included with Comcast or any of its Affiliates in a combined, consolidated or unitary tax return (for the avoidance of doubt, other than by reason of an allocation of items of income, gain, loss, deduction or credit on a "pass through" basis for income tax purposes) (any such tax return, a "**Comcast Group Tax Return**") for any taxable period. Any incremental out-of-pocket expenses incurred by the Company, the Manager, or the Controlled Portfolio Company as a result of Comcast AG Shareholder's request pursuant to this Section 10.19(a)(ii) shall be reimbursed by the Comcast AG Shareholder.

iii. In the event that Comcast or any of its Affiliates is required by Applicable Law to include any Company Entity in a combined, consolidated or unitary tax return (for the avoidance of doubt, other than by reason of an allocation of items of income, gain, loss, deduction or credit on a "pass through" basis for income tax purposes) (any such tax return, a "**Comcast Group Tax Return**") for any taxable period, the tax liability of such Company Entity and its Subsidiaries for each such taxable period will be determined on a hypothetical separate tax return basis as if such Company Entity and its Subsidiaries had never been included in any such Comcast Group Tax Return (such tax liability of such Company Entity and its Subsidiaries, the "**Company Entity Hypothetical Tax Liability**"). If the Company Entity Hypothetical Tax Liability with respect to a taxable period is positive, Comcast shall pay such amount on behalf of such Company Entity, and the Manager shall cause such Company Entity to reimburse Comcast for such amount within 10 days of Comcast's payment. If the Company Entity Hypothetical Tax Liability with respect to a taxable period is negative, such amount shall carry forward to successive taxable periods and shall reduce the Company Entity Hypothetical Tax Liability for such taxable periods; *provided, however*, if the aggregate amount of Company Entity Hypothetical Tax Liabilities of such Company Entity for prior taxable periods is positive, Comcast shall pay to such Company Entity an amount equal to the reduction in the tax liability of Comcast or its Affiliates attributable to any Tax Attribute of such Company Entity ("**Tax Loss Payment**"); *provided further* that (I) the

amount of Tax Loss Payment Comcast is required to make to such Company Entity shall not exceed the aggregate amount of Company Entity Hypothetical Tax Liabilities paid by such Company Entity to Comcast for prior taxable periods, (II) Comcast is required to make a Tax Loss Payment only if, and to the extent that, the actual tax liability of such Company Entity on a hypothetical separate tax return basis would have been reduced due to such Tax Attribute and (III) the Company Entity Hypothetical Tax Liabilities for prior taxable periods shall be reduced to reflect any Tax Loss Payment made by Comcast. In no event shall Comcast be required to make available its tax returns (or any other information relating to its taxes) to such Company Entity.

b. The Manager may cause any Company Entity to make, or refrain from making, any tax elections as it determines in its reasonable discretion, including, without limitation, the election under Section 754 of the Code; *provided, however*, that (i) prior to making any material election with respect to any Company Entity, the Manager shall consult with the Comcast AG Shareholder in good faith and the Manager shall cause any Company Entity not to make any material election that could reasonably be expected to have an adverse effect on Comcast AG Shareholder relative to any other Shareholder without the consent of Comcast AG Shareholder, which consent shall not be unreasonably withheld or delayed; (ii) at the request of Comcast AG Shareholder and to the extent available under Applicable Law, the Manager shall cause a Company Entity to make an election so that such Company Entity would not be included in a combined, consolidated or unitary tax return with Comcast or any of its Affiliates or under a group relief regime with Comcast or any of its Affiliates; (iii) the Manager shall not make an election under Section 1101(g)(4) of the “Bipartisan Budget Act of 2015” to apply the Partnership Audit Reform Rules prior to its effective date provided under Section 1101(g)(1) of the “Bipartisan Budget Act of 2015”; (iv) on or after the effective date of the Partnership Audit Reform Rules and to the extent permissible under Applicable Law, at the request of Comcast AG Shareholder, Manager shall cause any applicable Company Entity to file an election pursuant to Section 6221(b), as promulgated under the “Bipartisan Budget Act of 2015;” and (v) the Manager shall cause the Company to elect to be treated as a partnership for U.S. federal income tax purposes by timely filing Internal Revenue Service Form 8832 and any comparable tax form under applicable provisions of state or local law, and shall refrain from taking any actions inconsistent with its treatment as a partnership for federal, state and local income tax purposes.

c.

i. The Company shall, and the Manager shall cause each Comcast Investment Vehicle to, deliver, no later than five Business Days after the filing of the appropriate income tax returns by the Company or applicable Comcast Investment Vehicle, to each Shareholder a Schedule K-1 showing such Shareholder’s share of income, loss, deductions, gain and credits; *provided* that the Company shall, and the Manager shall cause each Comcast Investment Vehicle to, use commercially reasonable efforts to provide estimates of the information to be set forth on such Schedule K-1 no later than 60 days after the end of each Tax Year but in no event later than 90 days after the end of each Tax Year. Each Shareholder agrees that such Shareholder shall not treat any item of income, gain, loss or any other Company or Alternative Investment Vehicle item on such Shareholder’s tax return in a manner which is inconsistent with the

treatment of such item on the Company's or applicable Alternative Investment Vehicle's tax return (for the avoidance of doubt, as amended to reflect the resolution of an accounting firm pursuant to Section 10.19(a)(i)). The Company shall, and the Manager shall cause each Comcast Investment Vehicle to, deliver to the Comcast Shareholder estimates of the information necessary for Comcast to determine its estimated taxes payable with respect to a Tax Quarter attributable to Comcast Shareholder's interest in the Company or a Comcast Investment Vehicle, no later than 30 days after the end of such Tax Quarter; *provided, however*, that the Company and the Manager shall only be required to provide such information with respect to a tax year for which the aggregate amount of income, or aggregate amount of loss, allocated to Comcast Shareholder is expected to be significant; *provided* further that any incremental out-of-pocket expenses incurred by any Company Entity or the Manager in connection with the preparation of information for the Comcast Shareholder pursuant to this sentence shall be reimbursed by the Comcast Shareholder. For the avoidance of doubt, any expenses with respect to the preparation and filing of the tax returns for the Company or Comcast Investment Vehicle, including Schedule K-1 provided to the Shareholders, are Manager Expenses pursuant to Section 7.01.

ii. The Manager and the Company shall use commercially reasonable efforts to deliver, at the reasonable request of a Shareholder, such other information as is required for the preparation of its tax returns, including, if requested, state apportionment information. At the request of any Shareholder, the Manager and the Company shall use commercially reasonable efforts to deliver to such Shareholder such information as may be necessary for such Shareholder to file its Schedule UTP and similar other statements or returns that are required to be filed by such Shareholder as a result of its holding of Company Securities. Any incremental out-of-pocket expenses incurred by the Manager, the Company, a Comcast Investment Vehicle, or their Subsidiaries or any Portfolio Company as a result of a request from a Shareholder pursuant to this Section 10.19(c)(ii) shall be reimbursed by such Shareholder.

iii. The Manager agrees to use its commercially reasonable efforts to promptly notify a Shareholder in writing upon becoming aware of any tax filing, reporting or withholding obligations (including, for the avoidance of doubt, any amounts withheld or paid with respect to the Shareholder) and the availability of any refunds or exemptions from withholding, in each case with respect to the Shareholder's interest in the Company. In the event of any imposition by any governmental authority within the jurisdictions in which the Company makes its investments of any income tax liability on a Shareholder's share of the Company's income or of any tax liability arising out of a Shareholder's interest in the Company, in each case, on a net income basis, the Company shall use commercially reasonable efforts to provide the Shareholder with sufficient information so as to permit the Shareholder to claim any deduction or credit with respect to such taxes and to complete all requisite tax forms, reports or filings. In addition, if requested in writing by a Shareholder, the Company shall use its commercially reasonable efforts to obtain on behalf of the Shareholder, or to assist the Shareholder in obtaining, any available tax refunds or exemptions from withholding tax arising out of the Shareholder's interest in the Company. Any incremental out-of-pocket expenses

incurred by any Company Entity, Portfolio Company or the Manager as a result of a request from a Shareholder pursuant to this Section 10.19(c)(iii) shall be reimbursed by such Shareholder.

d. (i) ManagementCo Shareholder is hereby designated as the Company's "tax matters partner" under Section 6231(a)(7) of the Code (as in effect prior to amendment by the "Bipartisan Budget Act of 2015") or any comparable law (the "**Tax Matters Partner**"), with all powers and responsibilities of a "tax matters partner" as defined in Section 6231(a)(7)(A) of the Code (as in effect prior to amendment by the "Bipartisan Budget Act of 2015") or any comparable law and (ii) ManagementCo Shareholder (or such other Person designated by ManagementCo Shareholder) is hereby designated as the Company's "partnership representative" within the meaning of Section 6223 of the Code or any comparable law (the "**Partnership Representative**"), and, in each case, is granted the corresponding designation under any similar provisions of state, local or non-U.S. law. ManagementCo Shareholder shall also be authorized to appoint, and shall appoint, a natural person to serve as the "designated individual", within the meaning of Sections 6221 through 6242 of the Code together with any Regulations and guidance issued thereunder (the "**Designated Individual**"), to act on behalf of the Partnership Representative. The Tax Matters Partner or the Partnership Representative, as applicable, shall act in good faith in fulfilling its responsibilities. In the event that the Tax Matters Partner, the Partnership Representative or the relevant Company Entity is notified (in writing) by a taxing authority that the relevant Company Entity is the subject of an audit or examination by a taxing authority of any federal income, material foreign, state or local income, or material franchise tax return (a "**Tax Contest**"), the Tax Matters Partner or the Partnership Representative, as applicable, shall promptly provide to the Shareholders a written notice informing the Shareholders that the applicable Company Entity is the subject of a Tax Contest, shall keep the Shareholders reasonably informed of material developments relating to such audit or examination and shall permit the Comcast AG Shareholder to participate in the conduct and settlement of any proceeding with respect to any Tax Contest (it being understood that ManagementCo Shareholder shall retain control of the conduct and settlement of any such Tax Contest except to the extent of the consent right of Comcast AG Shareholder specified in the immediately succeeding sentence). The Tax Matters Partner or the Partnership Representative, as applicable, shall not agree to any settlement, resolution or closing or other agreement with respect to a Tax Contest involving any significant issue or item without the consent of Comcast AG Shareholder, which consent shall not be unreasonably withheld or delayed. Expenses of any administrative proceedings undertaken by the Tax Matters Partner or the Partnership Representative, as applicable, shall be Company Expenses other than incremental out-of-pocket expenses of Manager or any Company Entity relating to Comcast AG Shareholder's exercise of its consent right hereunder, which expenses shall be reimbursed by Comcast AG Shareholder, and the expenses of Comcast AG Shareholder in exercising its participation rights hereunder, which shall be borne by Comcast AG Shareholder.

e. The Manager shall not cause the Company, any Comcast Investment Vehicle and their Subsidiaries to engage, and the Manager shall not knowingly cause any other Company Entity to engage, directly or indirectly, in a transaction that, as of the date the Company Entity enters into a binding contract to engage in such transaction, is a

“listed transaction” as defined in U.S. Treasury Regulation Section 1.6011-4(b)(2). The Manager will undertake reasonable due diligence to determine whether any transaction to be engaged in by any Company Entity is a “listed transaction” or a “prohibited reportable transaction” as defined in Section 4965(e)(1)(C) of the Code. If the Manager has knowledge that any Company Entity has engaged directly or indirectly in a transaction that is a “listed transaction” or a “prohibited reportable transaction”, it shall (i) promptly notify the Shareholders of such determination and (ii) provide each Shareholder with any requested information needed by such Shareholder to fulfill its reporting or disclosure obligations in respect of such transaction.

f. The Manager may, in its reasonable discretion, take any steps that it deems necessary or advisable to cause the Company to comply with the tax laws of non-U.S. jurisdictions.

Section 10.20. *Tax Year*. The Company shall elect the calendar year as its taxable year (“**Tax Year**”), unless otherwise required by Applicable Law.

Section 10.21. *Portfolio Company Debt.* The Company will not permit any controlled Portfolio Companies to incur, create, issue, assume or guarantee any Debt unless such Debt is Non-Recourse to Comcast, and the Company shall use commercially reasonable efforts in structuring any such Debt to minimize the amount of any income inclusion by a Shareholder relating to such Debt pursuant to Section 956 of the Code.

Section 10.22. *Comcast Securities*. 99 The Company agrees that it will not acquire, directly or through any Alternative Investment Vehicle or controlled Portfolio Company, any equity securities or equity-related securities (including preferred equity, convertible debt or similar securities) or debt securities issued by Comcast or any of its Affiliates or Comcast Permitted Spin Transferee or any of its Affiliates.

ARTICLE 11

Winding-Up and Dissolution of the Company

Section 11.01. *Winding-Up of the Company.*

a. Subject to Applicable Law, the Company's affairs shall be wound up upon the earliest of:

i. the unanimous agreement of the Shareholders;

ii. the election by Comcast AG Shareholder or ManagementCo Shareholder, with effect only after the termination of the Commitment Period (taking into account any extension or early termination thereof in accordance with the terms of this Agreement);

iii. at Comcast AG Shareholder's election, the third anniversary of the occurrence of an Initial CEO Event (*provided* that, if at any time during such three year period, neither Alexander D. Evans nor David L. Caplan is serving in a senior management role with respect to the Company with responsibilities at least comparable to their responsibilities on the Commencement Date, the Comcast AG Shareholder may elect to require that the Company be wound up commencing at such time as neither of such individuals is serving in such capacity); and

iv. at Comcast AG Shareholder's election, the occurrence of a Cause Event (each of clauses (i) through (iv), a "**Wind-Up Event**").

b. Subject to Article 9, upon the occurrence of a Wind-Up Event, the Manager shall be the liquidator to wind-up the affairs of the Company and shall conduct an orderly disposition of the assets of the Company, including Portfolio Company Securities (collectively, "**Company Assets**"), in a manner consistent with the best interests of the Company, taking into account market conditions and legal and contractual considerations. The Manager shall determine in its reasonable discretion which Company Assets shall be sold and which Company Assets shall be retained for distribution in kind to the Shareholders. The Manager shall consider in good faith tax efficient structuring among other relevant factors in connection with the disposition or distribution of Company Assets pursuant to this Section 11.01(b). Subject to Applicable Law, after all liabilities of the Company have been satisfied or duly provided for, the remaining Company Assets shall be distributed to the Shareholders in accordance with Article 8 and this Article 11.

c. In the discretion of the liquidator, and subject to Applicable Law, a portion of the distributions that would otherwise be made to the Shareholders pursuant to this Section 11.01 may be:

i. distributed to a trust established for the benefit of the Shareholders for purposes of liquidating Shareholder assets, collecting amounts owed to the Shareholders, and paying any liabilities or obligations of the Company arising out of, or in connection with, this Agreement or the Company's affairs; or

ii. withheld, with respect to any Shareholder, to provide a reserve for the payment of such Shareholder's share of future Company Expenses; *provided* that such withheld amounts shall be distributed to the Shareholders as soon as the liquidator determines, in its reasonable discretion, that it is no longer necessary to retain such amounts.

The assets of any trust established in connection with clause (i) above shall be distributed to the Shareholders from time to time, in the discretion of the liquidator, in the same proportions as the amount distributed to such trust by the Company would otherwise have been distributed to the Shareholder pursuant to this Agreement.

d. Each Shareholder shall look solely to the assets of the Company for the return of such Shareholder's aggregate Capital Contributions, and no Shareholder shall have priority over any other Shareholder as to the return of such Capital Contributions.

e. After the liquidator has distributed the assets of the Company in accordance with this Section 11.01, the liquidator shall do all such acts required to wind up the Company in accordance with the Companies Law (2013 Revision) of the Cayman Islands.

Section 11.02. *Clawback.*

a. ManagementCo Shareholder acknowledges and agrees that the aggregate amount of Class II Distributions that it is entitled to receive in its capacity as the Class II Shareholder (the "**Class II Maximum Amount**") shall not exceed the lesser of (i) 12.5% of the excess, if any, of (A) the aggregate amount of distributions pursuant to Sections 8.02 and 11.01 over (B) the aggregate amount of Capital Contributions made by all Shareholders; and (ii) the excess, if any, of (A) the aggregate amount of distributions pursuant to Sections 8.02 and 11.01 over (B) the amount necessary to be distributed to the Class I Shareholders pursuant to Sections 8.02 and 11.01 such that each Class I Shareholder shall have received a Priority Return in respect of each Capital Contribution made by such Shareholder.

b. Upon the occurrence of a Wind-Up Event (the date of the occurrence of a Wind-Up Event, the "**Interim Clawback Date**"), the Manager shall calculate the Class II Maximum Amount and determine the amount, if any, the Class II Shareholder would be required to return pursuant to Section 11.02(c), in each case based upon a hypothetical liquidation of the Company as if all of the Company Assets were sold at the Quarterly Value thereof and the net assets of the Company were distributed as of such Interim Clawback Date in accordance with Section 11.01 after giving effect to such hypothetical liquidation (the "**Interim Clawback Amount**"). If there is an Interim Clawback Amount, the Class II Shareholder shall repay to the Company, for distribution (subject to Applicable Law) to the Class I Shareholders (*pro rata* in accordance with Section 8.02 or Section 11.01), an amount of cash equal to the Interim Clawback Amount; *provided* that in no event shall the Class II Shareholder be obligated to repay an amount that is greater than the aggregate Class II Distributions previously received by the Class II Shareholder less the excess of the deemed income tax liability (calculated based on the Tax Rate) on the income allocated to the Class II Shareholder over the amount of any corresponding deemed tax benefit (calculated based on the Tax Rate) arising out of the payment described in this paragraph in the taxable year in which such payment is made, in each case determined without reference to any item of income, gain, expense, loss or credit other than such items arising out of the Class II Shareholder's activities as a Shareholder of the Company. To the extent that there have been any distributions in kind of Marketable Securities or other non-cash Company Assets to the Class II Shareholder, the amount of the deemed income tax liability associated with such distributions shall be the value of such distributed Marketable Securities and Company Assets (as determined for purposes of making the applicable distribution under Section 8.02 or Section 11.01) multiplied by the applicable Tax Rate. Any amount that the Class II Shareholder pays to

the Company pursuant to this Section 11.02(b) shall not be treated as a Capital Contribution. The amount of any distribution to a Class I Shareholder pursuant to this Section 11.02(b) shall, for purposes of applying Section 8.02 and Section 11.01, be treated as having been made pursuant to Section 8.02 or Section 11.01 and shall be taken into account in determining the amounts that are distributable thereafter to such Class I Shareholder pursuant to Section 8.02 and Section 11.01.

c. If, after giving effect to (i) any payments pursuant to Section 11.02(b) and (ii) the final allocations and distributions pursuant to Section 11.01, the Class II Shareholder shall have received aggregate Class II Distributions in excess of the Class II Maximum Amount, the Class II Shareholder shall repay to the Company, for distribution (subject to Applicable Law) to the Class I Shareholders (*pro rata* in accordance with Section 8.02 or Section 11.01) an amount of cash equal to the excess of the aggregate Class II Distributions over the Class II Maximum Amount; *provided* that in no event shall the Class II Shareholder be obligated to repay an amount that is greater than the aggregate Class II Distributions previously received by the Class II Shareholder less the excess of the deemed income tax liability (calculated based on the Tax Rate) on the income allocated to the Class II Shareholder over the amount of any corresponding deemed tax benefit (calculated based on the Tax Rate) arising out of the payment described in this paragraph in the taxable year in which such payment is made, in each case determined without reference to any item of income, gain, expense, loss or credit other than such items arising out of the Class II Shareholder's activities as a Shareholder of the Company. Any amount that the Class II Shareholder pays to the Company pursuant to this Section 11.02(c) shall not be treated as a Capital Contribution. The amount of any distribution to a Class I Shareholder pursuant to this Section 11.02(c) shall, for purposes of applying Section 8.02 and Section 11.01, be treated as having been made pursuant to Section 8.02 or Section 11.01 and shall be taken into account in determining the amounts that are distributable thereafter to such Class I Shareholder pursuant to Section 8.02 and Section 11.01.

d. In the event that the Class II Shareholder is obligated under Section 11.02(b) or Section 11.02(c) to return to the Company a portion of the Class II Distributions received from the Company, to the extent the Class II Shareholder has insufficient funds to meet such obligations, (i) each limited partner or former limited partner of the Class II Shareholder shall be severally obligated to return its *pro rata* share of such amounts (based on the amounts paid to or for the account of such limited partner relating to Class II Distributions). Each limited partner of the Class II Shareholder shall execute and deliver a guarantee, for the benefit of the Company and the Shareholders, of the performance of his or her obligation to return up to his or her *pro rata* share of any amount required to be returned by the Class II Shareholder to the Company pursuant to Section 11.02(b) or c).

ARTICLE 12

Miscellaneous

Section 12.01. Binding Effect; Assignability; Benefit.

a. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, successors, legal representatives and permitted assigns.

b. Neither this Agreement nor any right or obligation arising hereunder or by reason hereof shall be assignable, delegable or otherwise transferable by any party hereto pursuant to any Transfer of Company Securities or otherwise, except that (i) Comcast Shareholder may assign its rights or obligations arising hereunder to the extent contemplated by Section 5.03 and Section 10.08 and (ii) ManagementCo Shareholder may assign its rights or obligations hereunder to the extent contemplated by Section 5.03; *provided* that no such assignment shall relieve ManagementCo Shareholder of any of its obligations hereunder.

c. Except as provided in Section 10.06(e), nothing in this Agreement, expressed or implied, is intended to confer on any Person other than the parties hereto, and their respective heirs, successors, legal representatives and permitted assigns, any rights or obligations under or by reason of this Agreement.

Section 12.02. *Notices*. All notices, requests and other communications to any party shall be in writing and shall be delivered in person, by reputable overnight courier service, mailed by certified or registered mail, return receipt requested, or sent by electronic mail:

if to the Company to:

Atairos Group, Inc.
40 Morris Avenue
Bryn Mawr, PA 19010
Attention: Michael J. Angelakis
E-mail: m.angelakis@atairos.com

Atairos Group, Inc.
620 Fifth Avenue
New York, NY 10020
Attention: David L. Caplan
E-mail: d.caplan@atairos.com

with copies to Comcast and the Manager at the addresses listed below;

if to Comcast Shareholder, to:

Comcast AG Holdings, LLC
c/o Comcast Corporation
One Comcast Center
1701 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103
Attention: Arthur R. Block

E-mail: art_block@comcast.com

Comcast Spectacor Ventures, LLC
c/o Comcast Corporation
One Comcast Center
1701 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103
Attention: Arthur R. Block
E-mail: art_block@comcast.com

with a copy to:
Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, New York 10017
Attention: Thomas J. Reid
E-mail: tom.reid@davispolk.com
Attention: William H. Aaronson
E-mail: william.aaronson@davispolk.com

if to ManagementCo Shareholder, to:
Atairos Partners, L.P.
40 Morris Avenue
Bryn Mawr, PA 19010
Attention: Michael J. Angelakis
E-mail: m.angelakis@atairos.com

Atairos Partners, L.P.
620 Fifth Avenue
New York, NY 10020
Attention: David L. Caplan
E-mail: d.caplan@atairos.com

with a copy to:
Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, Massachusetts 02199-3600
Attention: John B. Ayer

E-mail: john.ayer@ropesgray.com

if to the Manager, to:

Atairos Management, L.P.
40 Morris Avenue
Bryn Mawr, PA 19010
Attention: Michael J. Angelakis
E-mail: m.angelakis@atairos.com

Atairos Management, L.P.
620 Fifth Avenue
New York, NY 10020
Attention: David L. Caplan
E-mail: d.caplan@atairos.com

with a copy to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, Massachusetts 02199-3600
Attention: John B. Ayer
E-mail: john.ayer@ropesgray.com

if to Comcast, to:

Comcast Corporation
One Comcast Center
1701 John F. Kennedy Boulevard
Philadelphia, Pennsylvania 19103
Attention: Arthur R. Block
E-mail: art_block@comcast.com

with a copy to:

Davis Polk & Wardwell LLP
450 Lexington Avenue
New York, New York 10017
Attention: Thomas J. Reid
E-mail: tom.reid@davispolk.com
Attention: William H. Aaronson
E-mail: william.aaronson@davispolk.com

or such other address or electronic mail address as such party may hereafter specify for the purpose by notice to the other parties hereto.

All notices, requests and other communications shall be deemed received on the date of receipt by the recipient thereof if received (evidenced, in the case of electronic mail, by electronic confirmation of receipt) prior to 5:00 p.m. in the place of receipt and

such day is a Business Day in the place of receipt. Otherwise, any such notice, request or communication shall be deemed not to have been received until the next succeeding Business Day in the place of receipt. Any notice, request or other written communication sent by electronic mail transmission shall be confirmed by certified or registered mail, return receipt requested, posted within one Business Day, or by personal delivery, whether courier or otherwise, made within two Business Days after the date of such electronic mail transmissions.

Section 12.03. *Amendment; Waiver; Consent*.

a. Any provision of this Agreement may be amended or waived if, but only if, such amendment or waiver is in writing and is signed, in the case of an amendment, by each party to this agreement, or in the case of a waiver, by the party against whom the waiver is to be effective; *provided, however*, that notwithstanding the foregoing or anything to the contrary in this Agreement, unless otherwise specifically contemplated with respect to a particular provision, the written, signed consent of Comcast AG Shareholder to amend, waive or consent to any provision of this Agreement (including those set forth in Article 4, Section 6.01(c) and Section 10.17) shall be sufficient to constitute the consent on behalf of Comcast Shareholder (including on behalf of Comcast Spectacor Shareholder).

b. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

c. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by Applicable Law.

Section 12.04. *Fees and Expenses*. Subject to Article 7, all costs and expenses incurred in connection with the preparation of this Agreement, or any amendment or waiver hereof, and the transactions contemplated hereby shall be paid by the party incurring such costs or expenses.

Section 12.05. *Governing Law*. 2 This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to the conflict of laws rules of such state.

Section 12.06. *Jurisdiction*. The parties agree that any suit, action or proceeding seeking to enforce any provision of, or based on any matter arising out of or in connection with,

this Agreement or the transactions contemplated hereby shall be brought in the United States District Court for the Southern District of New York or any New York State court sitting in the Borough of Manhattan in New York, New York, so long as one of such courts shall have subject matter jurisdiction over such suit, action or proceeding, and that any cause of action arising out of this Agreement shall be deemed to have arisen from a transaction of business in the State of New York, and each of the parties hereby irrevocably consents to the jurisdiction of such courts (and of the appropriate appellate courts therefrom) in any such suit, action or proceeding and irrevocably waives, to the fullest extent permitted by Applicable Law, any objection that it may now or hereafter have to the laying of the venue of any such suit, action or proceeding in any such court or that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum. Process in any such suit, action or proceeding may be served on any party anywhere in the world, whether within or without the jurisdiction of any such court. Without limiting the foregoing, each party agrees that service of process on such party as provided in Section 12.02 shall be deemed effective service of process on such party.

Section 12.07. *WAIVER OF JURY TRIAL*. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 12.08. Specific Performance. The parties agree that irreparable damage would occur if any provision of this Agreement were not performed in accordance with the terms hereof and that the parties shall be entitled to an injunction or injunctions to prevent breaches of this agreement or to enforce specifically the performance of the terms and provisions hereof, in addition to any other remedy to which they are entitled at law or in equity.

Section 12.09. *Counterparts; Effectiveness*. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement shall become effective when each party hereto shall have received counterparts hereof signed by all of the other parties hereto. Until and unless each party has received a counterpart hereof signed by the other party hereto, this Agreement shall have no effect and no party shall have any right or obligation hereunder (whether by virtue of any other oral or written agreement or other communication).

Section 12.10. *Entire Agreement*. This Agreement, the Memorandum and Articles of Association, the ManagementCo Shareholder Partnership Agreement, the Management Agreement, the Letter Agreement and the Spectra Agreement constitute the entire agreement among the parties hereto with respect to the subject matter hereof and thereof and supersede all prior and contemporaneous agreements and understandings, both oral and written, among the parties hereto with respect to the subject matter hereof and thereof. Without limiting the foregoing, upon the effectiveness of the Original Agreement, the New Company - Binding Agreement dated as of March 31, 2015 by and between Comcast and the Initial CEO was terminated as of the date of the Original Agreement and is of no further force and effect.

Section 12.11. *Severability*. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction or other authority to be invalid,

void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Agreement shall remain in full force and effect and shall in no way be affected, impaired or invalidated so long as the economic or legal substance of the transactions contemplated hereby is not affected in any manner materially adverse to any party. Upon such a determination, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner so that the transactions contemplated hereby be consummated as originally contemplated to the fullest extent possible.

Section 12.12. *Guarantee*.

(e) Subject to Section 12.12(b), Comcast hereby irrevocably and unconditionally guarantees (the "**Comcast Guarantee**") to the Company, ManagementCo Shareholder and the Manager the prompt and full discharge by Comcast Shareholder of all of Comcast Shareholder's covenants, agreements, obligations and liabilities under this Agreement including the due and punctual payment of all amounts which are or may become due and payable by Comcast Shareholder hereunder when and as the same shall become due and payable (collectively, the "**Comcast Shareholder Obligations**"), in accordance with the terms hereof. Comcast acknowledges and agrees that, with respect to all Comcast Shareholder Obligations to pay money, such guaranty shall be a guaranty of payment and performance and not of collection and shall not be conditioned or contingent upon the pursuit of any remedies against Comcast Shareholder. If Comcast Shareholder shall default in the due and punctual performance of any Comcast Shareholder Obligation, including the full and timely payment of any amount due and payable pursuant to any Comcast Shareholder Obligation, Comcast will forthwith perform or cause to be performed such Comcast Shareholder Obligation and will forthwith make full payment of any amount due with respect thereto. Upon performance by Comcast of any Comcast Shareholder Obligation, Comcast shall be subrogated to the rights of Comcast Shareholder against the Company, ManagementCo Shareholder or the Manager, as the case may be, with respect to such Comcast Shareholder Obligation.

(f) Notwithstanding Section 12.12(a), upon the Transfer of any Comcast Shareholder Obligations in accordance with this Agreement to any Person that is not an Affiliate of Comcast (including any obligations of Comcast Shareholder that are indirectly allocated to a Comcast Permitted Spin Transferee pursuant to Section 5.03(c)(ii)), the Comcast Guarantee shall automatically be revoked and cease to be in effect with

respect to such Comcast Shareholder Obligations first arising after the effective date of the relevant Transfer (and otherwise the Comcast Guarantee shall remain in effect).

Section 12.13. *Representations.*

a. Each of Comcast Shareholder, ManagementCo Shareholder, the Manager and Comcast, severally but not jointly, for itself and not for any other party to this

Agreement, represents and warrants to the Company and to each of the others as of the date hereof that:

i. *Existence and Power*. Such Person is an entity duly formed, validly existing and in good standing under the laws of its jurisdiction of formation and has all powers and all governmental licenses, authorizations, permits, consents and approvals required to carry on its business as now conducted, except for those licenses, authorizations, permits, consents and approvals the absence of which would not, individually or in the aggregate, reasonably be expected to have an effect that is adverse and material to such Person's ability to consummate the transactions contemplated hereby.

ii. *Authorization*. The execution, delivery and performance by such Person of this Agreement and the consummation by such Person of the transactions contemplated hereby are within such Person's powers and, if applicable, have been duly authorized by all necessary corporate action on the part of such Person. This Agreement constitutes a valid and binding agreement of such Person, enforceable in accordance with its respective terms, except to the extent enforceability thereof may be limited by bankruptcy, insolvency, reorganization and other similar Applicable Laws affecting the enforcement of creditor's rights generally and by general principles of equity.

iii. *Noncontravention*. The execution, delivery and performance by such Person of this Agreement and the consummation by such Person of the transactions contemplated hereby do not and will not (A) violate the organizational documents of such Person, (B) violate any Applicable Law or (C) require any consent or other action by any Person under, constitute a default under, or give rise to any right of termination, cancellation or acceleration of any right or obligation of such Person or to a loss of any benefit to which such Person is entitled under, any provision of any agreement or other instrument binding upon such Person with such exceptions, in the case of clause (B) and (C), as would not, individually or in the aggregate, reasonably be expected to have an effect that is adverse and material to such Person's ability to consummate the transactions contemplated hereby.

b. Each of Comcast Shareholder and ManagementCo Shareholder, severally but not jointly, for itself and not for the other, represents and warrants to the Company and to the other as of the date hereof and as of each date on which Company Securities are issued to such Person pursuant to Section 2.04(b), that:

i. *Purchase for Investment*. Such Person is acquiring the Company Securities for investment for its own account and not with a view to, or for sale in connection with, any distribution thereof and such Person (either alone or together with its advisors) has sufficient knowledge and experience in financial and business matters so as to be capable of evaluating the merits and risks of its investment in the Company Securities, and such Person is capable of bearing the economic risks of such investment for an indefinite period of time and is aware that Transfer of the Company Securities may

not be possible because (A) such Transfer will be subject to contractual restrictions on Transfer set forth in this Agreement and (B) the issuance of the Company Securities has not been registered under the Securities Act or any applicable state securities laws and, therefore, the Company Securities cannot be sold unless such sale is registered under the Securities Act and such applicable state securities laws or an exemption from such registration is available.

ii. *Not a Registered Offering*. Such Person understands that the Company Securities have not been registered either with the SEC or with the securities commission of any state and are being offered and sold pursuant to private offering exemptions therefrom, and that no Governmental Authority has recommended or endorsed the Company Securities or made any finding or determination relating to the adequacy or accuracy of information provided to such Person or to the fairness for public investment of interests in the Company.

iii. *Source of Funds*. Such Person has sufficient cash, available lines of credit or other sources of immediately available funds (or, with respect to Comcast Spectacor Shareholder, property) to enable it to make payment of such Purchaser's Available Capital Commitment.

Section 12.14. *Safe Harbor Rules*. The ManagementCo Shareholder is authorized and directed to elect to have the "Safe Harbor" described in the proposed Revenue Procedure set forth in Internal Revenue Service Notice 2005-43 (the "**Notice**") apply to any interest in the Company transferred to a service provider by the Company on or after the effective date of such Revenue Procedure in connection with services provided to the Company. Under the Safe Harbor, the value of an interest that is transferred in connection with the performance of services (a "**Safe Harbor Interest**") is treated as being equal to the liquidation value of that interest. For purposes of making such Safe Harbor election, the ManagementCo Shareholder is designated as the "partner who has responsibility for federal income tax reporting" by the ManagementCo Shareholder and, accordingly, execution of such Safe Harbor election by the ManagementCo Shareholder constitutes execution of a "Safe Harbor Election" in accordance with Section 3.03(1) of the Notice. The Company and each Shareholder agree to comply with all requirements of the Safe Harbor described in the Notice, including, without limitation, the requirement that each Shareholder prepare and file all federal income tax returns (to the extent it is required to file such returns) reporting the income tax effects of each Safe Harbor Interest issued by the Company in a manner consistent with the requirements of the Notice. Each Shareholder's obligations to comply with the requirements of this Section 12.14 shall survive the Shareholder's ceasing to be a Shareholder of the Company and/or the winding up and/or termination of the Company, and for purposes of this Section 12.14, the Company shall be treated as continuing in existence. The ManagementCo Shareholder is authorized to amend the provisions in this Agreement to the extent necessary to achieve substantially the same tax treatment with respect to any interest in the Company transferred to a service provider by the Company in connection with services provided to the Company as set forth in Section 4 of the Notice (*e.g.*, to reflect changes from the rules set forth in the Notice in subsequent Internal Revenue Service guidance), provided that such amendment is not adverse to any Shareholder (as compared with the after-tax consequences that would result if the provisions of the Notice applied to all interests in

the Company transferred to a service provider by the Company in connection with services provided to the Company).

Section 12.15. *Advisers Act*. Each Shareholder agrees that it is not an advisory client of the Manager, ManagementCo Shareholder or any of their respective Affiliates for purposes of the Advisers Act in connection with the decision to invest in, or otherwise in connection with its investment in, the Company. The Board may, in its sole discretion, grant on behalf of the Company any approvals or consents required to be given by clients of the Manager or its Affiliates under the Advisers Act with respect to the Company in respect of (a) any and all disclosures and approvals required under Section 206(3) thereof, and (b) any consent to a transaction that would result in the "assignment" (within the meaning of the Advisers Act) of the Management Agreement. Such approval or consent of the Board shall constitute all necessary disclosures to and approvals or consents of a client for purposes of the Advisers Act. This Section 12.15 shall not prevent or restrict any vote, consent or approval of any Shareholder otherwise expressly required under the terms of this Agreement, including Sections 4.01(l) and 5.03, or the Letter Agreement in order for the Company, the Manager, ManagementCo Shareholder or any of their respective Affiliates to take or refrain from taking any specified action. Nothing contained in this Agreement shall constitute a waiver by any Shareholder of any of its legal rights under applicable federal securities laws or any other Applicable Law whose applicability is not permitted to be contractually waived.

[Remainder of page is intentionally blank.]

Signature Page to Second Amended and Restated Shareholders Agreement of Atairos Group, Inc.

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Signature Page to Second Amended and Restated Shareholders Agreement of Atairos Group, Inc.

#91677011v2

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their respective authorized officers as of the day and year first above written.

COMPANY:

ATAIROS GROUP, INC.

By: /s/ Clare McGrory

Name: Clare McGrory

Title: Chief Financial Officer

SHAREHOLDERS:

Comcast AG Holdings, LLC

By: /s/ Marc A. Rockford

Name: Marc A. Rockford

Title: Vice President

Comcast SPECTACOR VENTURES, LLC

By: /s/ Philip Weinberg

Name: Philip Weinberg

Title: President

ATAIROS PARTNERS, L.P.

By: Atairos Partners GP, Inc., its general partner

By: /s/ Clare McGrory

Name: Name:

Title: Title:

MANAGER:

ATAIROS MANAGEMENT, L.P.

By: Atairos Family GP, Inc., its general partner

By: /s/ Clare McGrory

Name: Name:

Title: Title:

COMCAST:

(solely for purposes of the Comcast Provisions)

COMCAST CORPORATION

By: /s/ Marc A. Rockford

Name: Marc A. Rockford

Title: Vice President

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SCHEDULE I

Capitalization

Shareholder	**Initial Class I-A Shares**	**Initial Class I-B Shares**	**Initial Class II Shares**	**Capital Commitment**
Comcast AG Shareholder	100	0	0	$5,000,000,000 *minus* the Capital Commitment of Comcast Spectacor Shareholder*
Comcast Spectacor Shareholder	100	0	0	An amount equal to the "Acquiror Capital Contribution" as defined in, and subject to adjustment pursuant to, the Spectra Agreement*
ManagementCo Shareholder	0	100	100	$50,000,000 - 100,000,000**

* Comcast Shareholder's Capital Commitment is not subject to adjustment without the consent of Comcast AG Shareholder. Effective as of January 1, 2016, Comcast Shareholder's aggregate Capital Commitment is $4,000,000,000. Effective July 1, 2018, Comcast Shareholder's aggregate Capital Commitment is $5,000,000,000.

** ManagementCo Shareholder's Capital Commitment may be adjusted by ManagementCo Shareholder from time to time by giving written notice of such adjustment to the Company and Comcast Shareholder; *provided* that, without Comcast Shareholder's prior written consent, (i) ManagementCo Shareholder's Capital Commitment may not be increased to an amount greater than $100,000,000 and

(ii) except to the extent that such decrease is caused by the termination of the Initial CEO's capital commitment to ManagementCo Shareholder pursuant to the Letter Agreement, ManagementCo Shareholder's Capital Commitment may not be decreased to an amount less than $50,000,000 (the "**ManagementCo Shareholder Capital Commitment Floor**"); *provided*, *further*, that, if the Manager fails to maintain an office outside of the United States at any time after January 1, 2019 (either because the office has not opened or is subsequently closed) and as a result the portion of the Non-U.S. Capital Commitment of each Shareholder that has not been called pursuant to a Drawdown Notice prior to such time is canceled, then the ManagementCo Shareholder Capital Commitment Floor shall be proportionally decreased on a straight-line basis by up to $10,000,000 (by way of example, if 75% of the Non-U.S. Capital Commitment of each Shareholder is canceled, then the ManagementCo Shareholder Capital Commitment Floor will be reduced by $7,500,000 and will thereafter be equal to $42,500,000). Effective as of January 1, 2016, ManagementCo Shareholder's Capital Commitment was $59,875,000. Effective July 1, 2018, ManagementCo Shareholder's Capital Commitment is $69,875,000.

SCHEDULE II

Comcast Core Business Exclusions

Healthcare- and pharma-related industries

Natural resources-, energy- and power-related industries

Public utilities, such as water and electricity related industries

Financial services industries

Print and publishing media industries

Radio- and music-related industries

Outdoor advertising industries

Real estate- and property-related industries

Hospitality-related industries

Software technology industries unrelated to a Core Business

E-commerce industries unrelated to a Core Business

Retail industries

Consumer products industries

Food- and beverage-related industries

Industrial and manufacturing industries

Automotive- and transportation-related industries

Logistics industries

Consulting- and technical services-related industries

Education- and training services-related industries

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SCHEDULE III

Cash Management Policy

Security Type	**Minimum credit rating**	**Maximum maturity**	**Maximum exposure as a % of all cash invested pursuant to Section 2.03**	**Maximum issuer exposure as a % of all cash invested pursuant to Section 2.03**
US Treasury Securities	AAA/Aaa	5 Years	No Limit	No Limit
US Government Agency Obligations	AAA/Aaa	1 Year	25%	25%
Obligations of Foreign Governments and Supranational Organizations	AAA/Aaa	3 Months	25%	25%
Commercial Paper USD, Euro and GBP	A-1/P-1 A-2/P2 F1/F2	13 Months 3 Month	25% 15%	5% 3%
Certificates of Deposit (Domestic, Eurodollar and Yankee), Eurodollar Deposits, Time Deposits, Banker's Acceptance, Bank Obligations	A-1/P-1 F1/F2	13 Months	25%	5%
Corporate Debt Securities (Fixed and Variable)	AA/Aa2	13 Months	15%	5%
Repurchase Agreements	Collateralized US Treasury Collateralized US Agency	Overnight Overnight	No Limit 25%	No Limit 25%
Local, City, State Government & Agency Obligations	AA/Aa2	13 Months	25%	5%
Money Market Funds-Taxable and Municipal Domestic and International	AAA-rated, 2a7 compliant, IMMFA compliant	NA	No limit	7%

SCHEDULE IV

Strategic Co-Investor Exclusions

Any of the following entities (or their successors) that is engaged in competition with Comcast's businesses, directly or indirectly through any parent, Subsidiary, Affiliate, joint venture, partnership or otherwise:

Altice N.V.

AT&T Inc. (including DirectTV)

CBS Corporation

CenturyLink, Inc.

Charter Communications, Inc.

Cox Communications, Inc.

Discovery Communications, Inc.

DISH Network Corporation

EchoStar Holding Corporation

Epix Joint Venture

EW Scripps Co.

Frontier Communications Corporation

Hulu, LLC

Liberty Media Corp.

Netflix, Inc.

Roku, Inc.

Sony Corporation of America

Sprint Corporation

T-Mobile USA, Inc.

The Walt Disney Company (including ABC)

Time Warner Inc. (including HBO, Turner and Warner Bros.)

Time Warner Cable Inc.

TiVo Inc.

Twenty-First Century Fox, Inc.

Verizon Communications, Inc.

Viacom Inc. (including DreamWorks and Paramount)

Exhibit 21.1

Legal Name	State/Country of Organization
AWTV, LLC	DE
Bravo Media LLC	NY
Centaur Funding Corporation	Cayman Islands
CNBC LLC	DE
Comcast ABB Note Consolidation, Inc.	DE
Comcast Business Communications, LLC	PA
Comcast Cable Communications Management, LLC	DE
Comcast Cable Communications, LLC	DE
Comcast Cable Funding I, LLC	DE
Comcast Interactive Media, LLC	DE
Comcast IP Phone, LLC	PA
Comcast MO Investments, LLC	DE
Comcast Nashville Finance	DE
Comcast of Arkansas/Louisiana/Minnesota/Mississippi/Tennessee, LLC	DE
Comcast of Boston, Inc.	NY
Comcast of California II, LLC	DE
Comcast of California III, Inc.	PA
Comcast of California IX, Inc.	PA
Comcast of California/Colorado, LLC	DE
Comcast of California/Colorado/Florida/Oregon, Inc.	PA
Comcast of California/Colorado/Illinois/Indiana/Michigan, LLC	DE
Comcast of California/Maryland/Pennsylvania/Virginia/West Virginia, LLC	DE
Comcast of California/Massachusetts/Michigan/Utah, LLC	DE
Comcast of Colorado IX, LLC	DE
Comcast of Colorado/Pennsylvania/West Virginia, LLC	DE
Comcast of Connecticut, Inc.	OK
Comcast of Connecticut/Georgia/Massachusetts/New Hampshire/New York/North Carolina/Virginia/Vermont, LLC	DE
Comcast of Delmarva, LLC	DE
Comcast of Florida/Michigan/New Mexico/Pennsylvania/Washington, LLC	CO
Comcast of Garden State, L.P.	DE
Comcast of Georgia/Illinois/Michigan, LLC	FL
Comcast of Georgia/Pennsylvania, LLC	DE
Comcast of Georgia/South Carolina, LLC	CO
Comcast of Houston, LLC	DE
Comcast of Illinois VI, LLC	DE
Comcast of Illinois/Indiana/Ohio, LLC	DE
Comcast of Illinois/West Virginia, LLC	DE
Comcast of Maine/New Hampshire, Inc.	NH
Comcast of Maryland, LLC	CO
Comcast of Massachusetts II, Inc.	DE
Comcast of Massachusetts III, Inc.	DE
Comcast of Minnesota, Inc.	PA
Comcast of New Jersey II, LLC	DE

Comcast of Oregon II, Inc.	OR
Comcast of Philadelphia II, LLC	DE
Comcast of Potomac, LLC	DE
Comcast of South Jersey, LLC	DE
Comcast of Southeast Pennsylvania, LLC	DE
Comcast of the South	CO
Comcast of Utah II, Inc.	PA
Comcast OTR1, LLC	DE
Comcast Shared Services, LLC	DE
Comcast Spectacor Ventures, LLC	PA
Comcast SportsNet Chicago, LLC	DE
E! Entertainment Television, LLC	DE
MSNBC Cable L.L.C.	DE
NBC Olympics LLC	DE
NBC Sports Network, L.P.	DE
NBC Subsidiary (KNBC-TV) LLC	DE
NBC West, LLC	DE
NBCU New Site Holdings LLC	DE
NBCUniversal Enterprise, Inc.	DE
NBCUniversal Media, LLC	DE
NBCUniversal, LLC	DE
Pacific Regional Programming Partners	NY
Sky CP Limited	United Kingdom
Sky Deutschland Fernsehen GmbH & Co. KG	Germany
Sky German Holdings GmbH	Germany
Sky In-Home Service Limited	United Kingdom
Sky Italia S.r.l.	Italy
Sky Italian Holdings S.p.A.	Italy
Sky Limited	United Kingdom
Sky Subscribers Services Limited	United Kingdom
Sky Telecommunications Services Limited	United Kingdom
Sky UK Limited	United Kingdom
TGC, LLC	DE
Universal Cable Productions LLC	DE
Universal City Development Partners, Ltd.	FL
Universal City Studios LLC	DE
Universal City Studios Productions LLLP	DE
Universal Studios International B.V.	The Netherlands
Universal Studios Limited	United Kingdom
Universal Studios LLC	DE
Universal Television LLC	NY
Universal Television Networks	NY
USJ LLC	Japan

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statements on Form S-8 (Nos. 333-101645, 333-101295, 333-104385, 333-121082, 333-123059, 333-130844, 333-130845, 333-130847, 333-150976, 333-161468, 333-174416, 333-174417, 333-179638, 333-183008, 333-193903, 333-210085, 333-212716, 333-224456 and 333-224455) and Form S-3 (No. 333-212719) of our reports dated January 31, 2019, relating to the consolidated financial statements and consolidated financial statement schedule of Comcast Corporation, and the effectiveness of Comcast Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K of Comcast Corporation for the year ended December 31, 2018.

/S/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania

January 31, 2019

Exhibit 23.2

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statements on Form S-8 (Nos. 333-177681 and 333-215522) and Form S-3 (No. 333-212719-01) of our reports dated January 31, 2019, relating to the consolidated financial statements and consolidated financial statement schedule of NBCUniversal Media, LLC appearing in this Annual Report on Form 10-K of NBCUniversal Media, LLC for the year ended December 31, 2018.

/S/ DELOITTE & TOUCHE LLP

New York, New York

January 31, 2019

Exhibit 31.1

CERTIFICATIONS

I, Brian L. Roberts, certify that:

1. I have reviewed this Annual Report on Form 10-K of Comcast Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2019

/s/ BRIAN L. ROBERTS

Name: Brian L. Roberts
Title: Chief Executive Officer

I, Michael J. Cavanagh, certify that:

1. I have reviewed this Annual Report on Form 10-K of Comcast Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2019

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Chief Financial Officer

Exhibit 31.2

CERTIFICATIONS

I, Brian L. Roberts, certify that:

1. I have reviewed this Annual Report on Form 10-K of NBCUniversal Media, LLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2019

/s/ BRIAN L. ROBERTS

Name: Brian L. Roberts

Title: Principal Executive Officer

I, Michael J. Cavanagh, certify that:

1. I have reviewed this Annual Report on Form 10-K of NBCUniversal Media, LLC;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an Annual Report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: January 31, 2019

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh

Title: Principal Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT

January 31, 2019

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Ladies and Gentlemen:

The certification set forth below is being submitted in connection with the Annual Report on Form 10-K of Comcast Corporation (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Brian L. Roberts, the Chief Executive Officer and Michael J. Cavanagh, the Chief Financial Officer of Comcast Corporation, each certifies that, to the best of his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Comcast Corporation.

/s/ BRIAN L. ROBERTS

Name: Brian L. Roberts
Title: Chief Executive Officer

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Chief Financial Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT

January 31, 2019

Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Ladies and Gentlemen:

The certification set forth below is being submitted in connection with the Annual Report on Form 10-K of NBCUniversal Media, LLC (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Brian L. Roberts, the Principal Executive Officer and Michael J. Cavanagh, the Principal Financial Officer of NBCUniversal Media, LLC, each certifies that, to the best of his knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of NBCUniversal Media, LLC.

/s/ BRIAN L. ROBERTS

Name: Brian L. Roberts
Title: Principal Executive Officer

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Principal Financial Officer