

SKY STUDIOS LIMITED

(formerly Parthenon Entertainment Limited)

Annual report and financial statements
For the 18 month period ended 31 December 2019

Registered number: 04377175



Directors and Officers

For the period ended 31 December 2019

Directors

Sky Studios Limited's (the "Company") present Directors and those who served during the period are as follows:

C J Taylor (resigned 5 June 2019)
C R Jones (resigned 5 June 2019)
K Holmes (resigned 5 June 2019)
T C Richards (appointed 5 June 2019)
C Smith (appointed 5 June 2019)
C L Cooper (appointed 23 July 2020)

Company Secretary

Sky Corporate Secretary Limited (appointed 5 June 2019)
C J Taylor (resigned 5 June 2019)

Registered office

Grant Way
Isleworth
Middlesex
TW7 5QD
United Kingdom

Auditor

Deloitte LLP
Statutory Auditor
London
United Kingdom

Strategic and Directors' Report

Strategic Report

The Directors present their Strategic and Directors' report on the affairs of the Company, together with the audited financial statements and Auditor's Report for the 18 month period ended 31 December 2019. During the period the Company changed its year-end from 30 June to 31 December, to align with that of Comcast Corporation ("Comcast"), the ultimate controlling party of the Company. Accordingly, the financial statements comprise the 18 month period to 31 December 2019, with comparatives for the 12 months to 30 June 2018.

The purpose of the Strategic Report is to inform members of the Company and help them assess how the directors have performed their duty under section 172 of the Companies Act 2006 (duty to promote the Company).

Business review and principal activities

The Company is a wholly-owned subsidiary of Parthenon Media Group Limited (the immediate parent company). The ultimate controlling party of the Company is Comcast Corporation and operates together with Comcast Corporation's other subsidiaries as a part of Comcast Group ("the Group").

On 9 October 2018, the offer by Comcast Bidco Limited to acquire the entire issued and to be issued share capital of Sky Limited ("Sky") (formerly Sky plc) became wholly unconditional. As a result and as of that date, the ultimate controlling party of Sky and its direct and indirect subsidiaries, including the Company, is now Comcast. In the fourth quarter of 2018, Comcast Bidco Limited acquired the remaining Sky shares and it now owns 100% of the share capital of Sky Limited.

On 18 February 2019, Sky cancelled its previous £1 billion revolving credit facility, which had a maturity date of 30 November 2021, and the Company, as part of the Sky Ltd group of companies, now part of Comcast's inter-company funding relationships.

The Company is a media company that distributes video content. The Company's key asset is its library of programmes and hours of content. The principal activity of the Company in the period has continued to be that of the distribution of television programmes. There have not been any significant changes in the Company's activities in the period under review.

In 2020, Sky Studios Elstree, the new Sky Studios state-of-the-art film and TV studio, received planning permission to proceed with construction in the UK. Set to open in 2022, Sky Studios Elstree will become home to a host of Sky Originals, created by Sky Studios, as well as major film productions from Universal Pictures, Focus Features and Working Title, and television series from Universal Studio Group.

Financial Review and Dividends

The audited accounts for the period ended 31 December 2019 are set out on pages 12 to 26. The Directors consider turnover and operating profit/loss to be key performance indicators of the Company. Turnover for the period ended 31 December 2019 was £107,207k (2018: £58,740k) and the loss after tax was £22,769k (2018: £12,795k profit).

The increase in turnover was due to sales relating to a number of Sky owned productions in the period. The loss after tax reflects the impairment of content rights during the period of £50,990k (2018: £3,141k) as well as the increased cost relating to the amortisation of programme stock. The Directors continue to take steps to identify new revenue streams from the existing programme library.

Strategic and Directors' Report (continued)

Financial Review and Dividends (continued)

The Balance Sheet shows that the Company's shareholders deficit position at the end of the period was £429k (2018: £22,340k surplus).

Key performance indicators (KPIs)

The Group manages its operations on a divisional basis. For this reason, the Company's Directors believe that further key performance indicators for the Company are not necessary or appropriate for an understanding of the development, performance or position of the Company.

Principal risks and uncertainties

The Company's business is dependent on the quality of programming in its library and its ability to monetise this content through its efficient and established distribution systems and its network of relationships. The Company's business is reliant on technology which is subject to the risk of failure, change and development.

The Company operates in a highly competitive environment that is subject to rapid change and it must continue to invest to remain competitive. The failure of key suppliers and customers could affect the Company's ability to operate as a business. The Group's principal risks and uncertainties are disclosed in the Group's annual report.

The Company's activities expose it to financial risks, namely credit risk, liquidity risk and foreign exchange risk, including any fluctuations arising as a result of the UK's decision to exit the European Union. The Company is also exposed to risk through the performance of its investments.

Foreign exchange risk

The Company's international activities expose it to the financial risks of changes in foreign currency exchange rates. This risk is not currently managed.

Credit risk

The Company has no significant concentration of credit risk, with exposure spread over a large number of counterparties and customers.

Liquidity risk

The Company relies on the Group Treasury function to manage its liquidity and ensure that sufficient funds are available for ongoing operations and future developments. The Group has access to an undrawn £3 billion revolving credit facility which is due to expire on 11 January 2024. The Company benefits from this liquidity through intra-group facilities and loans.

Strategic and Directors' Report (continued)

Impacts of COVID-19

The novel coronavirus disease 2019 ("COVID-19") and measures taken to prevent its spread across the globe are impacting Sky's businesses in a number of ways.

As a result of COVID-19, many sporting events and professional sports seasons were postponed in the first half of 2020, with certain sports, including European football, resuming in May and June 2020. This had a significant impact on Sky's results of operations for the first nine months of 2020. Direct-to-consumer revenue has been negatively impacted as a result of lower sports subscription revenue, and continued negative impacts as a result of the impacts of COVID-19 on the reopening plans of Sky's commercial customers are expected. Additionally, significant costs associated with broadcasting these programmes were not recognised as a result of sporting events not occurring as scheduled in the first half of 2020. These costs were generally recognised in the third quarter of 2020; and although sporting events have resumed, COVID-19 continues to result in uncertainty in the ultimate timing of when, or the extent to which, these events will occur for the remainder of 2020; their broadcast is expected to impact the timing, and potentially the amount, of revenue and expense recognition.

Sky also temporarily suspended certain sales channels due to COVID-19, which negatively impacted net customer additions and revenue in the first half of 2020. Sales channels generally resumed operations in June 2020.

COVID-19 has resulted in the deterioration of economic conditions and increased economic uncertainty in the United Kingdom and Europe, intensifying what was an already deteriorating economic and advertising environment. These conditions negatively impacted revenue in the first nine months of 2020, and these conditions are expected to continue to reduce advertising spend and consumer demand for Sky's services for the remainder of 2020. In addition, there is increased risk associated with collections on Sky's outstanding receivables, and Sky has incurred and expects to continue to incur increases in its bad debt expense.

Legislation and Regulation risk

U.K. Exit from the European Union

Sky's businesses are 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.

The telecommunications and media regulatory framework applicable to Sky's businesses in the U.K. and the EU may be subject to greater uncertainty following the U.K.'s withdrawal from the EU in January 2020. 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.

Employment policies

Organisation

Over the past 18 months, the Company has continued in its efforts to make the Company a great place to work. The Company has continued to place particular focus on leadership capability, looking both at the Company's leaders of today and future leaders.

Strategic and Directors' Report (continued)

Employment policies (continued)

Organisation (continued)

The average monthly number of full-time equivalent persons employed by the Company during the period was 47 (2018: 56).

Managing and developing our people

Equal opportunities

At Sky we believe in equal opportunities and that everyone should have full and fair consideration for all vacancies, promotions, training and development. We work with employees who have disabilities to remove barriers from the working environment to allow them to maximise their potential.

Inclusion

It's our people that make Sky, Europe's leading entertainment company, and we know that embracing different perspectives fosters innovation. Having diverse voices contribute to the decisions we take as a business helps us better anticipate and meet the needs of all our customers. Our ambition is to become the industry leader for inclusion, both on screen and behind the scenes. To help us achieve this we are focused on increasing the representation of people from BAME (Black, Asian, and minority ethnic) backgrounds in our business and remain committed to achieving gender parity. We are also actively supporting women to develop skills in traditionally underrepresented areas, with initiatives such as 'Get into Tech'. We support the aims of the UK legislation requiring organisations to publish their gender pay gap and are committed to equal pay.

Employee engagement

At Sky we listen to our people and encourage everyone to be involved. We know great ideas come from all corners of our business and it is part of our 'believe in better' spirit to harness those ideas for the benefit of our customers and our people. This period we gathered feedback from our teams through our People Survey. We achieved record levels of participation in the survey and we continue to achieve high levels of engagement, outperforming the 2018 employee engagement score.

Approved by the board and signed on its behalf by,

C L Cooper
Director

Grant Way
Isleworth
Middlesex
TW7 5QD
16 December 2020

Strategic and Directors' Report (continued)

Directors' Report

The Directors who served during the period are shown on page 1. During the period ended 31 December 2019 no dividend was proposed for the period ended 31 December 2019 (12 months to 30 June 2018: £nil).

The Company has chosen, in accordance with section 414C(11) of Companies Act 2006, to include such matters of strategic importance to the Company in the Strategic Report which otherwise would be required to be disclosed in the Director's report.

Going concern

The Company's business activities, together with the factors likely to affect its future development and performance are set out in the Business Review. The Strategic Report details the financial position of the Company, as well as the Company's objectives and policies, and details of its exposures to credit risk, liquidity risk and foreign exchange risk.

Given the integrated nature of the Group's financial planning and treasury functions, the impact of COVID-19 on the Company's operations and funding requirements has been assessed at the Group level. Although negatively impacted by COVID-19, the Directors expect that the businesses will continue to generate adequate cash flow from operating activities and believe that these cash flows, together with the Company's existing cash, cash equivalents and investments, and available borrowings under its existing credit facilities, including the £3 billion revolving credit facility with Comcast, will be sufficient for the Company to meet its current and long-term liquidity and capital requirements. The Directors further highlight that the Company has received confirmation of support from Comcast for a period of at least 12 months from the date of signing of these financial statements.

As a result, after making enquiries, the Directors have formed a judgement at the time of approving the financial statements that the Company will have access to adequate resources to continue in existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the financial statements.

Auditor

In accordance with the provisions of Section 418 of the Companies Act 2006, each of the persons who are Directors of the Company at the date of approval of this report confirms that:

- so far as the Director is aware, there is no relevant audit information (as defined in the Companies Act 2006) of which the Company's auditor is unaware; and
- the Director has taken all the steps that he ought to have taken as a Director to make himself/herself aware of any relevant audit information (as defined) and to establish that the Company's auditor is aware of that information.

Deloitte LLP have expressed their willingness to continue as auditor and a resolution to reappoint them was approved by the Board of Directors on 16 December 2020.

Strategic and Directors' Report (continued)

Approved by the board and signed on its behalf by,

CL Cooper
Director

Grant Way
Isleworth
Middlesex
TW7 5QD

16 December 2020

Statement of Directors' responsibilities

The Directors are responsible for preparing the Annual Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial period. Under that law the directors have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law) including FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland". Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period. In preparing these financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and accounting estimates that are reasonable and prudent;
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

Auditor's report (continued)

Independent Auditor's report to the members of Sky Studios Limited Report on the audit of the financial statements

Opinion

In our opinion the financial statements of Sky Studios Limited (the 'Company'):

- give a true and fair view of the state of the company's affairs as at 31 December 2019 and of its loss for the period then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland"; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements which comprise:

- the profit and loss account;
- the balance sheet;
- the statement of changes in equity and
- the related notes 1 to 17.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- the directors' use of the going concern basis of accounting in preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

We have nothing to report in respect of these matters.

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Auditor's report (continued)

Other information (continued)

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in respect of these matters.

Report on the audit of the financial statements

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in respect of these matters.

Responsibilities of directors

As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Auditor's report (continued)

Report on other legal and regulatory requirements

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified any material misstatements in the strategic report or the directors' report.

Matters on which we are required to report by exception

Under the Companies Act 2006 we are required to report in respect of the following matters if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

We have nothing to report in respect of these matters.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Jon Young FCA (Senior statutory auditor)
For and on behalf of Deloitte LLP
Statutory Auditor
London, United Kingdom
16 December 2020

Profit and Loss Account

For the period ended 31 December 2019

		18 months to 31 December 2019	12 months to 30 June 2018
	Note	£'000	£'000
Turnover	3	107,207	58,740
Cost of sales		(126,806)	(45,887)
Gross (loss)/profit		(19,599)	12,853
Administrative expenses		(2,782)	(168)
(loss)/profit before taxation	4	(22,381)	12,685
Tax on profit	7	(388)	110
(loss)/profit for the financial period		(22,769)	12,795

The accompanying notes are an integral part of this Profit and Loss Account.

For the year ended 30 June 2018 and the period ended 31 December 2019, the Company did not have any other items of Comprehensive Income. Accordingly, no statement of other comprehensive income is presented.

All results relate to continuing operations.

Balance Sheet

As at 31 December 2019

	Note	31 December 2019 £'000	30 June 2018 £'000
Fixed assets			
Intangible assets	8	80,458	102,127
Tangible assets	9	187	349
Investments	10	-	-
		80,645	102,476
Current assets			
Debtors	11	62,557	39,983
Cash at bank and in hand		37	-
		62,594	39,983
Creditors: Amounts falling due within one year	12	(143,668)	(120,119)
Net current liabilities		(81,074)	(80,136)
Total assets less current liabilities		(429)	22,340
Net assets		(429)	22,340
Capital and reserves			
Called up share capital	14	-	-
Profit and loss account		(429)	22,340
Shareholders' Funds		(429)	22,340

The financial statements of Sky Studios Limited (registered number 04377175) were approved by the board of directors and authorised for issue on 16 December 2020. They were signed on its behalf by:

CL Cooper
Director
16 December 2020

Statement of Changes in Equity

For the period ended 31 December 2019

	Note	Share capital £'000	Profit and loss account £'000	Total £'000
At 30 June 2017		-	9,545	9,545
Profit for the year	4	-	12,795	12,795
At 30 June 2018		-	22,340	22,340
Loss for the period	4	-	(22,769)	(22,769)
At 31 December 2019		-	(429)	(429)

Notes to the financial statements for the period ended 31 December 2019

1. General information

Sky Studios Limited ("the Company") is a private limited liability company, limited by shares, incorporated in the United Kingdom and registered in England and Wales under Companies Act 2006. The address of the registered office is Grant Way, Isleworth, Middlesex, TW7 5QD, United Kingdom and registered number is 04377175. The nature of the Company's operations and its principal activities are set out in the strategic report on pages 2 to 5.

These financial statements are presented in pounds sterling because that is the currency of the primary economic environment in which the Company operates.

These financial statements are separate financial statements. The Company is taking advantage of s401 under the Companies act, meaning it is exempt from preparing consolidated accounts as it is included in the Group accounts of Sky Limited ("Sky"). The Group accounts of Sky are available to the public and can be obtained as set out in note 16.

2. Significant accounting policies

Basis of accounting

The financial statements have been prepared on the historical cost basis and in accordance with Financial Reporting Standard 102 (FRS102) issued by the Financial Reporting Council. The Company meets the definition of a qualifying entity under FRS 102 and has therefore taken advantage of the disclosure exemptions available to it in respect of its financial statements. Exemptions have been taken in relation to financial instruments, presentation of a cash flow statement, intra-group transactions and remuneration of key management personnel.

The principal accounting policies adopted are set out below.

Investments

Investments in subsidiaries are accounted for at cost less, where appropriate, provisions for impairment.

Turnover

Turnover represents amounts receivable for production services and distribution fees net of VAT.

Turnover from a production commissioned or contracted by broadcasters is recognised as turnover in proportion to the stage of completion of the production at the relevant date. The stage of completion of a production is determined based on the proportion of costs incurred for work performed to date to total expected production costs.

Turnover from the distribution of programmes is recognised when a contract has been executed by both the Company and licensee and the relevant programmes have been delivered to the broadcaster.

Distribution turnover from programmes or formats distributed by third parties and other ancillary turnover is recognised once the Company has been notified of the sums due to it. Non-refundable advance payments received from third parties are recognised as turnover on execution of a contract. Any fees received in advance, which do not meet all the above criteria, are included in deferred income until the above criteria are met.

Foreign currencies

Transactions in foreign currencies are recognised at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated. Exchange differences are recognised in profit or loss in the period in which they arise.

Notes to the financial statements for the period ended 31 December 2019

2. Significant accounting policies (continued)

Taxation

UK corporation tax is provided at current amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date, where transactions or events that result in an obligation to pay more tax in the future or a right to pay less tax in the future have occurred at the balance sheet date. A net deferred tax asset is regarded as recoverable and therefore recognised only when, on the basis of all available evidence, it can be regarded as more likely than not that there will be suitable taxable profits against which carried forward tax losses can be offset and from which the future reversal of underlying timing differences can be deducted.

Deferred tax is measured at the average tax rates that are expected to apply in the periods in which the timing differences are expected to reverse based on tax rates and laws that have been enacted by the balance sheet date. Deferred tax is measured on a non-discounted basis.

Tangible fixed assets

Tangible fixed assets are stated at historic purchase cost less accumulated depreciation. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to its working condition for its intended use.

Depreciation is provided at the following annual rates in order to write off each asset over its estimated useful life.

Short leasehold	- over the term of the lease
Plant and machinery	- Straight-line over 3-20 years
Fixtures and fittings	- Straight-line over 3-20 years
Motor vehicles	- Straight-line over 3-20 years

Intangible assets

i) Film rights

Intangible assets, which comprise internally generated and acquired film distribution rights are initially stated at cost, respectively, less accumulated amortisation and impairment losses. Internally generated intangible assets are classified as assets under construction until they are available for use.

Amortisation of an intangible asset begins when the asset is available for use, and is charged to the Profit and Loss Account through operating expense based on the estimated useful life of between 3 and 10 years. The estimated useful life is based on the genre of the programme. This requires an element of judgement from management.

During the period, an impairment review was undertaken and any programme which was no longer expected to generate revenues was fully impaired, with the charge taken to the Profit and Loss Account.

ii) Internally generated software

Amortisation of internally generated software begins when the asset is available for use, and is charged to the Profit and Loss Account through operating expense on a straight-line basis over the intangible asset's estimated useful life of 4 years.

Notes to the financial statements for the period ended 31 December 2019

2. Significant accounting policies (continued)

Production and development costs

Production costs incurred in programming where future distribution rights are retained are capitalised in the balance sheet as intangible assets as they are incurred. Amortisation of an intangible asset begins when the asset is available for use, and is charged to the Profit and Loss Account through operating expense based on the estimated useful life. The estimated useful life is based on the genre of the programme.

Production costs incurred in programming where no distribution rights are retained are charged to the profit and loss account as they are incurred.

Development costs have been capitalised in accordance with FRS 102 Section 18 Intangible Assets other than Goodwill and are therefore not treated, for dividend purposes, as a realised loss.

Wages and salaries, pension costs and other post-retirement benefits

Wages, salaries, social security contributions, bonuses payable and non-monetary benefits for current employees are recognised in the Profit and Loss Account as the employees' services are rendered. The Company operates a defined contribution pension scheme. Contributions payable to the Company's pension scheme are charged to the profit and loss account in the period to which they relate.

Financial instruments

(i) Cash and cash equivalents

Cash and cash equivalents include cash in hand, bank accounts, deposits receivable on demand and deposits with maturity dates of three months or less from the date of inception. Bank overdrafts that are repayable on demand and which form an integral part of the Company's cash management are also included as a component of cash and cash equivalents.

(ii) Debtors

Trade and other debtors are stated at their recoverable amount. A provision is made when the amount receivable is not considered recoverable and the full amount is written off when the probability for recovery of a balance is assessed as being remote.

(iii) Creditors

Trade and other creditors are non-derivative financial liabilities and are measured at amortised cost using the effective interest method. Trade and other creditors with no stated interest rate are measured at the original invoice amount if the effect of discounting is immaterial.

Critical accounting policies and judgement and key sources of estimation uncertainty

Certain accounting policies are considered to be critical to the Company. An accounting policy is considered to be critical if its selection or application materially affects the Company's financial position or results. The Directors are required to use their judgement in order to select and apply the Company's critical accounting policies.

Below is a summary of the Company's critical accounting policies and details of the key areas of judgement that are exercised in their application.

Notes to the financial statements for the period ended 31 December 2019

2. Significant accounting policies (continued)

Critical accounting policies and judgement and key sources of estimation uncertainty (continued)

Critical accounting policies and judgements

(i) Turnover (see note 3)

- Selecting the appropriate timing for, and amount of, revenue to be recognised requires judgement. This may involve estimating the fair value of consideration before it is received.

(ii) Tax (see note 7)

- The Company's tax charge is the sum of the total current and deferred tax charges. The calculation of the Company's total tax charge necessarily involves a degree of estimation and judgement in respect of certain items whose tax treatment cannot be finally determined until resolution has been reached with the relevant tax authority or, as appropriate, through a formal legal process.
- Accruals for tax contingencies require management to make judgements and estimates in relation to tax audit issues and exposures. Amounts accrued are based on management's interpretation of country-specific tax law and the likelihood of settlement. Tax benefits are not recognised unless it is probable that the tax positions will be sustained. Once considered to be probable, management reviews each material tax benefit to assess whether a provision should be taken against full recognition of the benefit on the basis of the likely resolution of the issue through negotiation and/or litigation.

The amounts recognised in the financial statements in respect of each matter are derived from the Company's best estimation and judgement, as described above. However, the inherent uncertainty regarding the outcome of these items means the eventual resolution could differ from the provision and in such event the Company would be required to make an adjustment in a subsequent period which could have a material impact on the Company's profit and loss and/or cash position.

(iii) Intangible assets and property, plant and equipment (see notes 8 and 9)

- The assessment of the useful economic lives of these assets requires judgement. Depreciation and amortisation is charged to the income statement based on the useful economic life selected, which requires an estimation of the period and profile over which the Company expects to consume the future economic benefits embodied in the assets. The Company reviews its useful economic lives on at least an annual basis.
- Determining whether the carrying amount of these assets has any indication of impairment also requires judgement. If an indication of impairment is identified, further judgement is required to assess whether the carrying amount can be supported by the net present value of future cash flows forecast to be derived from the asset. This forecast involves cash flow projections and selecting the appropriate discount rate.

Assessing whether assets meet the required criteria for initial capitalisation requires judgement. This requires a determination of whether the assets will result in future benefits to the Company. In particular, internally generated intangible assets must be assessed during the development phase to identify whether the Company has the ability and intention to complete the development successfully. No property, plant and equipment arrangements have been entered into as at the reporting date.

Key sources of estimation uncertainty

The performance of Programme Rights has been identified as a major sources of estimation uncertainty at the reporting period end, that have a significant risk of causing a material adjustment to be made to the carrying value amounts of assets and liabilities within the next financial year.

By contrast, areas where estimation is applied primarily in the context of applying critical accounting policies and judgements, have been discussed in the preceding section above.

Notes to the financial statements for the period ended 31 December 2019

3. Turnover

An analysis of the Company's turnover is as follows:

	2019 £'000	2018 £'000
Turnover:		
Production and distribution of programmes	107,207	58,740

An analysis of the Company's turnover by geographical market is set out below:

	2019 £'000	2018 £'000
Turnover:		
United Kingdom	16,066	8,226
European Union Markets	58,377	26,517
Rest of the World	32,764	23,997
	<u>107,207</u>	<u>58,740</u>

4. Profit / (Loss) on ordinary activities before taxation

Profit on ordinary activities before taxation has been arrived at after crediting:

	2019 £'000	2018 £'000
Net foreign exchange (gains) / losses	1,326	311
Depreciation of tangible fixed assets (note 9)	162	117
Amortisation of intangible assets (note 8)	48,901	26,727
Impairment of intangible assets (note 8)	50,990	3,141
Loss on disposal of intangible assets	-	-

5. Auditor's remuneration

Fees payable to Deloitte LLP and their associates for the audit of the Company's annual accounts were £25,000 (2018: £20,000). No amounts for other services have been paid to the auditor (2018: £nil).

Notes to the financial statements for the period ended 31 December 2019

6. Staff Costs

The average monthly number of employees (including executive directors) was:

	2019 Number	2018 Number
Channels and services	47	56

Their aggregate remuneration comprised:

	2019 £'000	2018 £'000
Wages and salaries	6,522	3,095
Social security costs	450	339
Other pension costs	213	150
	<u>7,185</u>	<u>3,584</u>

The directors did not receive any remuneration during the period in respect of their services to the Company (2018: £nil)

7. Tax on profit on ordinary activities

The tax charge / (credit) comprises:

	2019 £'000	2018 £'000
Current tax on profit on ordinary activities		
UK corporation tax	-	-
Double tax relief	-	-
Overseas taxation	307	21
Total current tax	<u>307</u>	<u>21</u>
Deferred tax: origination and reversal of temporary differences	(118)	(180)
Deferred tax: impact of change in tax rates	(9)	46
Deferred tax asset written off	209	
Deferred tax: prior year adjustments	(1)	3
Total deferred tax	<u>81</u>	<u>(131)</u>
Total tax on profit on ordinary activities	<u>388</u>	<u>(110)</u>

The tax assessed for the period is higher with (2018: lower) the standard rate of corporation tax in the UK for the period ended 31 December 2019 of 19% (2018: 19%). The differences are explained below:

Notes to the financial statements for the period ended 31 December 2019

7. Tax on profit on ordinary activities (continued)

	2019 £'000	2018 £'000
(Loss) / Profit on ordinary activities before tax	(22,381)	12,685
Tax on ordinary activities multiplied by standard rate of corporation tax in the UK of 19% (2018: 19%)	(4,252)	2,410
Tax effect of expenses that are not deductible in determining taxable profit	198	49
Effect of tax losses not recognised in deferred tax	-	7
Group relief surrendered/(claimed) for no consideration	3,936	(2,646)
Prior year adjustment	(1)	3
Deferred tax write-off following rate reduction	(9)	46
Deferred tax asset written off	209	-
Foreign Tax not creditable	307	21
Total tax charge / (credit) for period	388	(110)

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the periods in which they reverse. At the Statement of Financial Position date, the rates enacted or substantively enacted for the relevant periods of reversal are: 19.0% from 1 April 2017 and 17.0% from 1 April 2020 in the UK. On 11 March 2020, the Chancellor announced that in April 2020 the UK government will legislate to retain the current 19% rate. This change was substantively enacted on 17 March 2020, after the Statement of Financial Position date, and therefore is not included in these financial statements.

Notes to the financial statements for the period ended 31 December 2019

8. Intangible Assets

	Film rights not yet available for use £'000	Film rights £'000	Internally generated software £'000	Total £'000
Cost				
At 30 June 2018	49,183	152,735	312	202,230
Additions	33,533	44,744	-	78,277
Disposals	-	-	(55)	(55)
Transfers	(49,183)	49,183	-	-
At 31 December 2019	33,533	246,662	257	280,452
Amortisation				
At 30 June 2018	-	100,037	66	100,103
Charge for the period	-	48,805	96	48,901
Impairment	-	50,990	-	50,990
At 31 December 2019	-	199,832	162	199,994
Carrying amount				
At 30 June 2018	49,183	52,698	246	102,127
At 31 December 2019	33,533	46,830	95	80,458

The amortisation and impairment in the period of film rights and internally generated software have been charged to cost of sales in the profit and loss.

Intangible assets are amortised over their estimated useful lives as disclosed in note 2 of the notes to the accounts. An annual review is undertaken to ensure that the proportion of costs amortised to date matches the proportion of revenue to date. An impairment is calculated to accelerate the amortisation on titles where the amortised cost does not appropriately match revenue. Development costs have been capitalised.

Notes to the financial statements for the period ended 31 December 2019

9. Tangible Fixed Assets

	Short Leasehold £'000	Plant and machinery £'000	Fixtures and Fittings £'000	Motor Vehicles £'000	Totals £'000
Cost or valuation					
At 30 June 2018	2	408	743	10	1,163
Additions	-	-	-	-	-
At 31 December 2019	2	408	743	10	1,163
Accumulated depreciation and impairment					
At 30 June 2018	2	379	423	10	814
Charge for the period	-	29	133	-	162
At 31 December 2019	2	408	556	10	976
Carrying amount					
At 30 June 2018	-	29	320	-	349
At 31 December 2019	-	-	187	-	187

10. Investments

The company has the following investments:

Name	Country of incorporation	Description and proportion of shares held (%)	Principal activity
Direct holdings			
Cymru International Limited, Grant Way, Isleworth, Middlesex, TW75QD	United Kingdom	2 ordinary shares of £1.00 each - 100%	Distribution and Licensing

Notes to the financial statements for the period ended 31 December 2019

11. Debtors

Amounts falling due within one year:

	2019 £'000	2018 £'000
Trade debtors	35,291	18,384
Amounts owed by group undertakings	6,692	4,191
Amounts owed by associates	288	300
VAT	2,026	4,502
Other debtors	200	272
Prepayments and accrued income	17,748	11,941
Deferred tax asset	312	393
	62,557	39,983

There are amounts receivable from other group undertakings totalling £6,692k (2018: £4,191k); these balances are non-interest bearing and repayable on demand.

The directors believe that carrying amount approximates the fair value under FRS 102.

There are amounts receivable from associates totalling £288k (2018: £300k); these balances are non-interest bearing and repayable on demand.

12. Creditors

Amounts falling due within one year:

	2019 £'000	2018 £'000
Trade creditors	1,803	3,920
Amounts owed to group undertakings	123,095	108,883
Other Loans	-	5
Indirect tax liabilities	440	-
Accruals and deferred income	18,330	7,311
	143,668	120,119

There are amounts payable to other group undertakings totalling £123,095k (2018: £108,883k); these balances are non-interest bearing and are repayable on demand.

13. Provision for deferred tax

	2019 £'000	2018 £'000
Accelerated capital allowances	(50)	(39)
Other timing differences	-	(172)
Tax losses available	-	-
Provisions	(262)	(182)
Total Provision	(312)	(393)

There are unused losses of £413k which can be carried forward indefinitely however these have not been recognised in deferred tax as they are ringfenced against certain productions where suitable profits are not expected to arise.

Notes to the financial statements for the period ended 31 December 2019

14. Share capital

	2019	2018
	£	£
Allotted, called-up and fully paid		
100 (2018: 100) ordinary shares of £1 (2018: £1) each	100	100

The Company has one class of ordinary shares which carries equal voting rights and no contractual right to receive payment.

15. Related party disclosures

During the period the Company conducted business transactions with companies that form part of the 21st Century Fox, Inc. group, a major shareholder in Sky until 9 October 2018. Transactions with 21st Century Fox, Inc. group are as follows:

	2019	2018
	£'000	£'000
Supply of services by the Company	150	9,224
Purchase of services by the Company	1,167	6,762

Transactions with other Group companies

The Company conducts business transactions with other Group companies:

	2019	2018
	£m	£m
Supply of services by the Company	813	-
Purchases of goods / services by the Company	-	-

For details of amounts owed by and owed to other Group companies, see note 11 and note 12.

16. Ultimate parent undertaking

The company is a wholly-owned subsidiary undertaking of Sky Limited (formerly Sky plc), a Company incorporated and registered in England and Wales. The Company's ultimate parent company and the largest group in which the results of the company are consolidated is Comcast, a company incorporated in Pennsylvania, United States.

The Company is ultimately controlled by Comcast and operates together with Comcast's other subsidiaries, as a part of the Group. The only group in which the results of the Company are consolidated is that headed by Comcast.

The consolidated financial statements of the Group are available to the public and may be obtained from Comcast Investor Relations at Comcast Corporation, One Comcast Center, Philadelphia, PA 19103, USA. Or at:

<https://www.cmcsa.com>.

Notes to the financial statements for the period ended 31 December 2019

17. Post Balance Sheet Events

Subsequent to 31 December 2019, the novel COVID-19 outbreak was declared a pandemic, and measures taken to prevent its spread are impacting Sky's business in a number of ways. The impacts of COVID-19 on the Company's business activities are set out in the Strategic Report.

In 2020, Sky Studios Limited entered into an Agreement for Lease with Legal & General, relating to the construction and subsequent lease of Sky Studios Elstree. On satisfaction of the pre-conditions and completion of the construction, Sky Studios Limited will enter into a 35-year term finance lease with Legal & General for the land and studio building assets, with the option to acquire all for a nominal fee of £1 at the end of the lease term.

On 1 July 2020, Sky Studios Production Limited was transferred from Parthenon Media Group Limited to Sky Studios Limited. Additionally, during 2020, three new production companies were incorporated for which Sky Studios Limited is the sole shareholder; Rising Voices Limited, incorporated on 27 July 2020; Wider Voices Limited, incorporated on 8 December 2020, and; Agreed Voices Limited, incorporated on 8 December 2020.

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

FORM 10-K

(Mark One)



ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2019

OR



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



Registrant: State of Incorporation; Address and
Telephone Number

Commission File Number

I.R.S. Employer Identification No.

001-32871

COMCAST CORPORATION

27-0000798

Pennsylvania
One Comcast Center
Philadelphia, PA 19103-2838
(215) 286-1700

001-36438

NBCUNIVERSAL MEDIA, LLC

14-1682529

Delaware
30 Rockefeller Plaza
New York, NY 10112-0015
(212) 664-4444

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

Comcast Corporation -

Title of Each Class	Trading symbol(s)	Name of Each Exchange on Which Registered
Class A Common Stock, \$0.01 par value	CMCSA	NASDAQ Global Select Market
2.0% Exchangeable Subordinated Debentures due 2029	CCZ	New York Stock Exchange
5.50% Notes due 2029	CCGBP29	New York Stock Exchange
9.455% Guaranteed Notes due 2022	CMCSA/22	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 ☒ No ☐
NBCUniversal Media, LLC Yes ☒ No ☐

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 ☐ No ☒
NBCUniversal Media, LLC Yes ☐ No ☒

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 ☒ No ☐
NBCUniversal Media, LLC Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 such files).

Comcast Corporation Yes ☒ No ☐
NBCUniversal Media, LLC Yes ☒ No ☐

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 ☒ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐ Emerging growth company ☐
NBCUniversal Media, LLC Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☒ Smaller reporting company ☐ Emerging growth company ☐

If an emerging growth company, indicate by check mark if 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 ☐
NBCUniversal Media, LLC ☐

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

Comcast Corporation Yes ☐ No ☒
NBCUniversal Media, LLC Yes ☐ No ☒

As of June 30, 2019, the aggregate market value of the Comcast Corporation common stock held by non-affiliates of the registrant was \$190.526 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, 2019, there were 4,543,590,270 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 2020.

NBCUniversal Media, LLC - NONE

Annual Report of Comcast Corporation (Form 10-K) in support of the individual accounts of the following companies, and in accordance with the provisions of section 401(2)(f) of the Companies Act 2006.

COMPANY NAME	COMPANY NUMBER
Blast! Films Limited	02975177
Comcast Bidco Holdings Limited	11341628
Comcast Bidco Ltd	11341936
Kidsprog Limited	02767224
Sky CP Limited	09513259
Sky Group Finance Ltd	05576975
Sky International Operations Ltd	08055122
Sky Limited	02247735
Sky Ocean Ventures (General Partner) Ltd	11251012
Sky Ocean Ventures Partner Ltd	11250940
Sky SNI Limited	08458834
Sky Studios Limited	04377175
Sky Subscribers Services Limited	02340150
Sky Television Ltd	01518707
Sky UK Limited	02906991
Sky Ventures Limited	03092549

Comcast Corporation

2019 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;” NBCUniversal Enterprise, Inc. as “NBCUniversal Enterprise;” and Sky Limited and its consolidated subsidiaries as “Sky.”

This Annual Report on Form 10-K is for the year ended December 31, 2019. 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 a leading provider of high-speed internet, video, voice, wireless, and security and automation services to residential customers in the United States 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, we are developing a theme park in Beijing, China along with a consortium of Chinese state-owned companies, and an additional theme park in Orlando, Florida.
- **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 the operations of Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania, and other business initiatives, such as the development of Peacock, our direct-to-consumer streaming service that will feature NBCUniversal content.

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

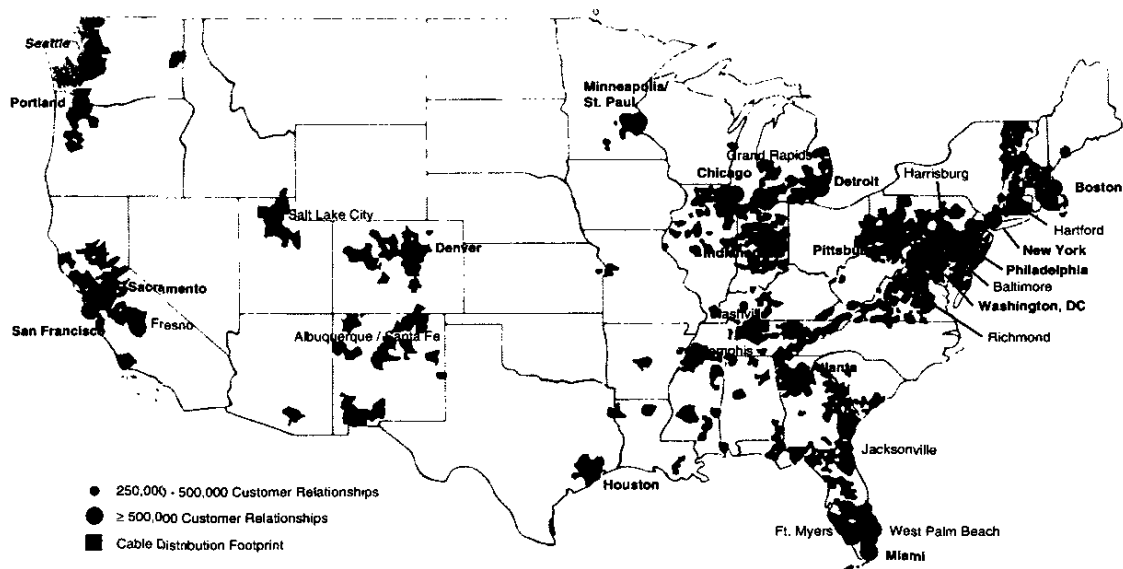
Cable Communications Segment

Cable Communications offers high-speed internet, video, voice, wireless, 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. Revenue is generated primarily from residential and business customers that subscribe to our services, which are marketed individually and as bundled services, and from the sale of advertising. Bundled service offerings aim to meet the needs of various segments of our customer base, ranging from high-speed internet services packaged with video or streaming services that include a limited number of channels, to a five-product bundle, consisting of high-speed internet, video, voice, wireless, and security and automation services. 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 our residential customers are subject to minimum-term contracts for their cable services, which are typically 1 to 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, 2019, Cable Communications had 31.5 million total customer relationships, including 29.1 million residential customer relationships and 2.4 million business customer relationships, and passed more than 58 million homes and businesses. Homes and businesses are considered passed if we can connect them to our cable distribution system without further extending the transmission lines and are estimated based on the best available information. As of December 31, 2019, total customer relationships penetration of homes and businesses passed was 54%.

The Areas We Serve

The map below highlights Cable Communications' cable distribution footprint as of December 31, 2019 and the designated market areas ("DMAs") where we have 250,000 or more customer relationships, with the locations that are bolded representing one of the top 25 U.S. television DMAs as of December 31, 2019.



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. These services include access to an online portal and mobile apps, which provide users with the ability to manage their home Wi-Fi network, email, an address book, calendars and online security features.

Throughout its footprint, Cable Communications deploys wireless gateways to customers that combine an internet and voice modem with a Wi-Fi router to deliver reliable internet speeds and enhanced coverage through an in-and-out-of-home Wi-Fi network. Customers with wireless gateways may also personalize and manage their Wi-Fi network remotely with the 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, advanced security, and other features. Cable Communications continues to expand its network of residential, outdoor and business Wi-Fi hotspots. Certain high-speed internet customers who do not subscribe to our video services also receive Flex, a streaming device with access to various programming and other third-party internet apps on their television.

As of December 31, 2019, 26.4 million residential customers subscribed to our high-speed internet services.

Video

Cable Communications offers a broad variety of video services, primarily through our X1 platform, an Internet Protocol ("IP") and cloud-enabled video platform. Video customers have access to hundreds of channels depending on the level of service, which typically range from limited basic service with access to between 20 and 60 channels to 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. Our video services also include access to video on demand services ("On Demand") and an interactive, on-screen program guide. Our On Demand service provides video customers with access to hundreds of thousands of programming choices included in our library. 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. Customers also receive high-definition ("HD") video service that provides high-resolution picture quality, improved audio quality and a wide-screen format through an HD set-top box, and a broad selection of HD programming choices. Customers also have the option to subscribe to additional services, including a digital video recorder ("DVR") service that allows customers to record and store programs and play them at their convenience, including online and through our mobile app, and to pause and rewind live television. Additionally, customers may subscribe to premium networks that generally provide, without commercial interruption, movies, original programming, live and pre-recorded sporting events and concerts, and other features. We also offer video service packages that include extensive amounts of foreign-language programming and other specialty tiers of programming. We tailor our video services for particular programming preferences, demographics and geographic areas in accordance with applicable local and federal regulatory requirements.

Through the X1 platform, customers have integrated search functionality, including the use of a voice-activated remote control, personalized recommendations and access to, and integration of, certain third-party internet apps, such as Netflix, Amazon Prime Video and YouTube. Additionally, a variety of music apps such as Pandora are offered through X1.

Customers have access to their video services through the Stream mobile app and an online portal that allow them to view certain live programming and On Demand content and to browse program listings. Additionally, Cable Communications offers a streaming video service throughout our footprint that allows high-speed internet customers to purchase video services and stream live programming to a computer, tablet, smartphone or other device for a monthly fee.

As of December 31, 2019, 20.3 million residential customers subscribed to our video services.

Voice

Cable Communications offers voice services using interconnected Voice over Internet Protocol ("VoIP") technology. The 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 and various call features such as 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, 2019, 9.9 million residential customers subscribed to our voice services.

Wireless

Cable Communications offers wireless phone services using mobile virtual network operator ("MVNO") rights to provide the services over Verizon's wireless network and our existing network of in-home and outdoor Wi-Fi hotspots. The services are currently offered only as part of our bundled service offerings to residential customers that subscribe to high-speed internet service within our cable distribution footprint and may in the future also be offered to small business customers on similar terms. Customers may choose to pay for services on an unlimited data plan or per gigabyte of data used. Customers have the ability to bring their own device or purchase handsets with the option to pay upfront or finance the purchase interest-free over 24 months.

As of December 31, 2019, there were 2.1 million activated wireless lines that were subscribed to our wireless services. Individual customer relationships may have multiple lines.

Business Services

Cable Communications offers a variety of products and services to businesses. High-speed internet services provide downstream speeds that range up to 1 Gbps and fiber-based speeds that range up to 10 Gbps. Our service offerings for small business locations primarily include high-speed internet services, as well as voice and video services, that are similar to those provided to residential customers, as well as cloud-based cybersecurity services, wireless backup connectivity, advanced Wi-Fi solutions, video monitoring services and cloud-based services 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, along with video solutions that serve hotels and other large venues. In addition, we provide cellular backhaul services to mobile network operators to help them manage their network bandwidth.

Cable Communications has expanded its service offerings to include a software-defined networking product for medium-sized and enterprise customers. Larger enterprises may also receive support services related to Wi-Fi networks, router management, network security, business continuity risks and other services. These 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 our service areas.

Advertising

As part of Cable Communications' distribution agreements with cable networks, we generally receive an allocation of scheduled advertising time that is sold through our advertising business to local, regional and national advertisers. In most cases, the available advertising units are sold by our sales force. 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. Cable Communications also represents the advertising sales efforts of other multichannel video providers in some markets. In addition, we generate revenue from the sale of advertising on our digital platforms. We also provide 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. We also license our technology platforms to other multichannel video providers.

As of December 31, 2019, 1.4 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 our 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, and Flex, which use IP technology and our own cloud network servers to deliver video and advanced search capabilities, including through a voice-activated remote control, and that provide access to certain third-party internet apps.

Cable Communications continues to deploy 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 our hybrid fiber-optic and coaxial cable network.

Sources of Supply

Cable Communications licenses software products for our high-speed internet services, such as email and security software, and content, such as news feeds for its online portal, from a variety of suppliers. Under these contracts with these suppliers, we generally pay 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 and broadcast networks, as well as from local broadcast television stations. We attempt 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 subscribers who are able to watch the programming and the platforms on which the content is provided. We seek to include in distribution agreements the rights to offer such programming through multiple delivery platforms, such as through our 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.

For wireless services, we have an MVNO agreement that allows us to offer services using Verizon's wireless network.

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 services to residential and business customers.

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

Customer and Technical Services

Cable Communications' customer service call centers provide 24/7 call-answering capability, telemarketing and other services. Our 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

Cable Networks 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, 2019 (in millions) ^(a)	Description of Programming
USA Network	87	General entertainment
E!	84	Entertainment and pop culture
Syfy	84	Imagination-based entertainment
Bravo	84	Entertainment, culture and arts
MSNBC	83	News, political commentary and information
CNBC	82	Business and financial news
NBC Sports Network	80	Sports
Oxygen	70	Crime, mystery and suspense for women
Golf Channel	68	Golf competition and golf entertainment
Universal Kids	54	Children's entertainment
The Olympic Channel	34	Olympic sports events and Olympic-themed original content
CNBC World	28	Global financial reviews

(a) Household data is based on The Nielsen Company's December 2019 Household Universe Estimate report, except for the Olympic Channel, 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.

Our regional sports and news networks together serve more than 26 million households across the United States, including in markets such as Baltimore/Washington, Boston, Chicago, Philadelphia, Portland, Sacramento and San Francisco.

Revenue is generated primarily from the distribution and licensing of programming and from the sale of advertising on our networks and digital properties. We market and distribute 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. We also market and distribute cable network programming to subscription video on demand services, such as those offered by Amazon, Hulu and Netflix. These distributors may provide the content on television, including via video on demand services, online and through mobile apps.

Cable Networks produces owned programs or acquires 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 our own cable networks and third parties. We license owned content to cable and broadcast networks and subscription video on demand services. We also sell owned content on standard-definition DVDs and Blu-ray discs (together, "DVDs") and through digital distribution services such as iTunes. We anticipate that our cable television studio production operations will also produce content for and license content to Peacock.

Broadcast Television

Broadcast Television operates the NBC and Telemundo broadcast networks, which together reach viewers and advertisers in all 50 states, as well as our 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. Revenue is generated primarily from the sale of advertising on our networks and digital properties, from the licensing of 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 owned 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 the Super Bowl in 2022. We also have 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 our national cable networks, including the NBC Sports Network and Golf Channel, and regional sports networks, and online, including through 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. We currently distribute some of our television programs after their initial broadcast, as well as older television programs from the library, to local broadcast television stations and cable networks in the off-network syndication market. We anticipate that our broadcast television studio production operations will also produce content for and license content to Peacock.

NBC Local Broadcast Television Stations

As of December 31, 2019, 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 31 million U.S. television households and represent approximately 29% of U.S. television households. In addition to broadcasting the NBC network's national programming, our 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, 30 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. We hold the Spanish-language U.S. broadcast rights to FIFA World Cup soccer through 2026.

Telemundo Local Broadcast Television Stations

As of December 31, 2019, Telemundo owned 30 local broadcast television stations affiliated with the Telemundo network, including an independent television station in Puerto Rico and stations in 19 of the top 20 U.S. Hispanic markets, which collectively reached approximately 72% of U.S. Hispanic television households as of December 31, 2019.

Filmed Entertainment

Filmed Entertainment primarily produces, acquires, markets and distributes filmed entertainment worldwide. It also includes Fandango, a movie ticketing and entertainment business, our consumer products business and our live stage production business. We also distribute filmed entertainment produced by third parties.

Filmed Entertainment produces content both 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. Filmed Entertainment 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. Filmed Entertainment's content includes theatrical films, direct-to-video movies and a film library, which is comprised of more than 5,000 movies in a variety of genres.

Filmed Entertainment 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 our produced and acquired films are initially distributed for exhibition in movie theaters. After their release in movie theaters, we sell and license films through various methods. We distribute films globally by selling them on DVDs to retail stores and rental kiosks, and through digital distribution services and video on demand services provided by multichannel video providers, including the Cable Communications and Sky segments. We also license films, including selections from the 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's content. We anticipate that our film studios will also produce content for and license content to Peacock.

Theme Parks

Theme Parks 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, and our water park, Volcano Bay, and we are building an additional theme park named Universal's Epic Universe. Universal Orlando also includes Universal CityWalk Orlando, a dining, retail and entertainment complex, and 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 theme park in Beijing, China along with a consortium of Chinese state-owned companies. In addition, Theme Parks 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.

Revenue is generated primarily from guest spending at Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Theme Parks 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 three of the four largest pay television markets in Western Europe: the United Kingdom ("U.K."), Italy and Germany. The majority of revenue is derived from Sky's direct-to-consumer business, which has 24.0 million retail customers, and primarily involves the distribution of a wide array of video channels to both residential and business 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 3.9 million households. Sky also provides high-speed internet, voice and wireless phone services in select countries. Sky's video, high-speed internet, voice and wireless phone services may be purchased individually or in bundles.

Video

Sky's video services include a direct-to-home ("DTH") video service delivered through a combination of both satellite transmission and broadband connection and marketed under the Sky brand in the U.K., Ireland, Italy, Germany and Austria. Sky 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 local free-to-air public broadcasting channels. In addition to live-linear content, Sky's platform also provides access to On Demand and current and prior season libraries for certain television shows. Sky's service offerings are tailored by country, with separate packages offered in each market. Basic packages include up to approximately 98 pay television channels in the U.K. and Ireland, approximately 72 channels in Italy, and approximately 28 channels in Germany and Austria. Specialty tiers for children's, sports, movie and HD programming are available for additional fees. Sky's 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 customers through a set-top box video platform, including through Sky Q, which is Sky's next-generation video platform. 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 programming in one room and

continue watching 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 to entertainment, sports, movies and children's programming. The entertainment package includes Sky's owned entertainment channels and a broad range of On Demand programming series. The sports package provides access to Sky's owned sports channels and the movie package includes access to a library of films, including 40 or more new films per month. The children's package includes thousands of hours of child-friendly on demand programming.

Other than those who 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.

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. Sky 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 owned channels from third parties, in some cases on an exclusive basis. Sky has various contractual commitments for the licensing of rights to multiyear programming, primarily sports programming and exclusive entertainment programming. Our 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 Champions League ("UCL") through 2021; and Italian broadcast rights to UCL and Lega Nazionale Professionisti Serie A through 2021. Our most significant entertainment programming commitments include exclusive rights with HBO, Showtime, Warner Bros., NBCUniversal and The Walt Disney Company ("Disney"). Sky is also increasingly creating and investing in original scripted content that is broadcast across all of its territories and sold to other markets and we anticipate that our Sky studio production operations will also produce content for and license content to Peacock.

In addition to including owned channels as part of its video services, Sky distributes some of its owned 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. Additionally, Sky licenses owned and acquired programming to third-party video providers.

Advertising

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

Other Services

Sky offers high-speed internet and voice services in the U.K. and Ireland. Sky offers fiber-to-the-cabinet, standard copper digital subscriber line ("DSL") broadband and fiber-to-the-home ("FTTH") services, with download speeds up to 150 megabits per second in the U.K. and up to 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 as the core network and also accesses the "last mile" network from third-party network operators for a fee to provide its services to customers. In Italy, Sky offers 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 in 2020. Sky offers wireless phone services to customers in the U.K. using a combination of its own core fiber network and an arrangement to access network assets from Telefónica.

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 wireless 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 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 voice 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 distribution agreements the rights to offer such programming through multiple delivery platforms, such as through On Demand services, mobile apps and streaming services.

Customer and Home Services

Sky's customer service operations are increasingly a digital first offering. The home service group performs various tasks, including installing, servicing and performing upgrades of customer premise equipment.

Sales and Marketing

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

Corporate and Other

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, and other business initiatives, such as the development of Peacock.

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 content 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 high-speed internet services more important to consumers. In addition, the increasing number of entertainment choices available to consumers has intensified audience fragmentation and disaggregated the way that content traditionally has been viewed by consumers. This increase has caused and likely will continue to cause audience ratings declines at our programming channels.

Cable Communications Segment

Competition for Cable Communications' services consists primarily of phone companies with fiber-based networks and direct broadcast satellite ("DBS") providers that typically offer features, pricing and packaging for services comparable to ours.

High-Speed Internet

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 which is currently available in limited locations, wireless broadband services and Wi-Fi networks. These networks work with devices such as smartphones, laptops, tablets and mobile and fixed 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

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 services similar to ours, which overlap a substantial portion of our service areas, and that in some cases provide bundled offerings that include wireless phone services
- OTT service providers 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, Apple, Disney, Hulu and Netflix, that offer online services and devices that enable internet streaming and downloading of movies, television shows and other video programming
 - traditional television and film programmers, networks and media companies 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 multiple dwelling units ("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

Cable Communications competes 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.

Wireless

Cable Communications competes with national wireless phone service providers in the United States, including AT&T and Verizon, which offer wireless service on both a standalone basis or along with other services as bundled offerings, as well as regional providers of wireless communications services.

Business Services

Cable Communications primarily competes with a variety of phone companies, including ILECs and CLECs and wide area network managed service providers. These companies either operate their own network infrastructure or use all or part of another carrier's network. We also compete 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; OTT service providers; 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, OTT service providers, and local television stations. 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 multichannel video providers and OTT service providers. Our 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

Filmed Entertainment competes for audiences for films and other entertainment content with other major studios and independent film producers, as well as with alternative forms of entertainment. The competitive position of Filmed Entertainment primarily depends on the number of films produced, their distribution and marketing success, and consumer response. Filmed Entertainment also competes to obtain creative, performing and technical talent, including writers, actors, directors and producers, as well as scripts for films. We also compete with the other major studios and other producers of entertainment content for the exhibition of films in theaters and the distribution of films on premium networks, and with OTT service providers.

Theme Parks

Theme Parks competes with other multi-park entertainment companies as well as 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 significant amounts in existing and new theme park attractions, hotels and infrastructure, including the new theme parks in Beijing, China and Orlando, Florida.

Sky Segment

Sky competes with 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, downloading and other 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 competitors use to provide their services as well as lowered prices, product innovations, new technologies or different value creation approaches. Sky also competes with organizations that are publicly funded, in whole or in part, to fulfill a public service broadcasting mandate.

Sky's owned channels compete 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

Cable Communications, Cable Networks, Broadcast Television 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 the related networks, stations or channels. Declines in audience ratings 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 OTT service providers, online media 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 Cyclicalities

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

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 Cable Networks and Broadcast Television, and the Super Bowl, which affects Broadcast Television. In particular, advertising revenue increases due to increased demand for advertising time for these events and distribution revenue increases in the period of broadcasts of the Olympic Games. 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 Cable Communications, Cable Networks, Broadcast Television and Sky is also 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 and in even-numbered years due to increases in consumer advertising in the spring and in the period leading up to and including the holiday season and advertising related to candidates running for political office and issue-oriented advertising, respectively. Revenue in Cable Networks and Broadcast Television 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. Revenue at Sky has 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™.

Revenue in Filmed Entertainment 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 Cable Networks, Broadcast Television and Filmed Entertainment also fluctuates due to the timing of when our content is made available to licensees.

Revenue in Theme Parks 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. Theme Parks generally experiences peak attendance during the spring holiday period, the summer months when schools are closed and the Christmas holiday season.

Sky 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 second half of each year due to higher marketing expenses.

Exclusive sports rights, such as local European and UCL soccer, Formula 1, and English cricket, play a key role within Sky's wider content strategy. In Europe, broadcasting rights for major 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 cyclicity for Sky, although the staggered timing of major sports rights auctions usually gives Sky time to react to any material changes in the competitive dynamics of the prevailing market. Certain of Sky's significant sports rights agreements require payments at the start of each season, resulting in increases in sports rights payments in the third and fourth quarter of each year.

Legislation and Regulation

The Communications Act of 1934, as amended (the “Communications Act”), and Federal Communications Commission (“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, at times looking to adopt regulatory approaches from different countries that may be more burdensome, and they, along with some state attorneys general and foreign governmental authorities, have also been active in conducting inquiries and reviews, regarding our services. In addition, regulators and the courts could adopt new interpretations of existing competition laws as new competition law theories emerge. 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 the significant 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

We provide high-speed internet services to our customers. Many of these services are subject to a number of regulatory obligations or commitments 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. In addition, states and localities may consider new broadband-related regulations, including those regarding government-owned broadband networks. New broadband regulations, if adopted, may have adverse effects on our businesses.

Open Internet Regulations

In 2017, the FCC reversed its prior classification of broadband internet access service as a Title II telecommunications service under the Communications Act and classified it as an “information service” under Title I. In addition, it eliminated its prior rules 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 unreasonably interfering with or disadvantaging edge providers’ ability to make lawful content, applications, services or devices available to consumers (“general conduct”). The FCC stated that jurisdiction to regulate ISP conduct would rest at the Federal Trade Commission (“FTC”). In addition, the FCC revised the transparency rule to add a requirement that ISPs 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 FCC’s 2017 decision was challenged, and in 2019, the U.S. Court of Appeals for the District of Columbia largely upheld the FCC’s decision, including the classification of broadband as a Title I information service and repeal of its prior rules. However, it vacated the FCC’s express preemption of all state Open Internet laws, but noted that state laws may nevertheless be preempted on a case-by-case basis if those regulations conflict with federal law or policy. Parties have sought further review of the court’s opinion.

Several states have passed or introduced legislation, or have adopted executive orders, that impose Open Internet requirements in a variety of ways, and new state legislation may be introduced and adopted in the future. 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 currently considering additional measures that could result in further preemption of state and local laws or regulations as part of its broader efforts to accelerate wireless broadband infrastructure 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.

Video

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 increasingly in the courts, 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. Failure to reach a retransmission consent agreement with a broadcaster could result in the loss of popular programming on our video services. 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

While the vast majority of our video services, including equipment and installation fees, are no longer subject to rate regulation by the FCC, certain state entities monitor and challenge the marketing and advertising of our services, and some have attempted to regulate the service packages we offer. We cannot predict the outcome of any current litigation with state entities or whether other states may pursue similar actions.

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 require adequate channel capacity, facilities and financial support for public, educational and governmental access programming, and other in-kind contributions. 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. The FCC adopted an order in 2019 that prohibits state and local authorities from imposing duplicative franchise and/or fee requirements on the provision of broadband and other non-cable services over franchised cable systems, and ruling that in-kind contributions are treated as franchise fees subject to the statutory cap on franchise fees of 5% of cable service revenue unless those contributions are expressly excluded by statute. The order has been appealed, and we cannot predict the outcome of this litigation.

Voice

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, customer equipment 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. One federal court of appeals has held that VoIP is an information service and preempted state regulation of VoIP, but that ruling is limited to the seven states located in that 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.

Wireless

In 2017, we began offering a wireless voice and data service. We offer this service using our 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, which could adversely affect our wireless phone service offering or our business generally.

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; Maine has enacted a law mandating retail a la carte distribution by cable operators that, if upheld by the courts, may have similar effects. 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 12 years of age and under is limited, and certain television station programming must serve the educational and informational needs of children 16 years of age and under.

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 renewed all of our broadcast television station licenses without conditions during the last license renewal cycle; the next television license renewal cycle begins in 2020. Although our licenses have been renewed, there can be no assurance that we will always obtain renewal grants.

Ownership Restrictions

The Communications Act and FCC regulations impose certain limitations on local and national television ownership, as well as limits on foreign ownership in a broadcast television station. In addition, 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.

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. The next three-year period will commence on January 1, 2021, with elections to be made by October 1, 2020.

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 in the United States and internationally, 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., Sky is required to ensure that agreements to provide its 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 the U.K.'s communications regulator, the Office of Communications, or Ofcom, 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.

Television Channels

Sky holds a number of licenses and authorizations for its portfolio of pay TV channels. In the U.K., Sky is subject to various codes issued by Ofcom affecting the content and delivery of these channels. Sky also holds various nationwide broadcast licenses in Germany, Italy and Austria, and must comply with rules and regulations covering issues such as the acquisition and exploitation of sports rights, media concentration and plurality, television advertising, the protection of children, accessibility, airtime for commercials and teleshopping, sponsorship, and ensuring clear distinctions between program content and advertising.

High-Speed Internet and Voice

Sky provides broadband and voice services in the U.K. and Ireland pursuant to wholesale distribution agreements that third-party broadband and telecommunications companies either make available commercially or 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 and Sky's content 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 is ambiguous and the use of technological protections are controversial. Modifications to existing laws, a weakening of these protections or their enforcement, 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 distribution 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 compulsory copyright license and the royalties we pay are subject to audits and possible regulatory and legislative changes that could impact the royalty fees we pay and our ability to retransmit broadcast signals over cable systems. In addition, the landscape for music licensing is constantly changing, and music fees we pay are subject to new fee demands and negotiations. We cannot predict how changes to the compulsory copyright license and music licensing will impact the fees that we pay.

Privacy and Data Security Regulation

Our businesses are subject to federal, state and other foreign laws and regulations that impose various restrictions and obligations related to privacy and the handling of consumers' personal information. In the U.S., 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. We are also subject to stringent data security and data retention requirements that apply to website operators and online services directed to children 12 years of age and under, or that knowingly collect or post personal information from children 12 years of age and under.

In addition, certain states have enacted detailed laws establishing consumer privacy protections and data security requirements in their respective states. For example, the California Consumer Privacy Act ("CCPA") gives California residents new rights to receive certain disclosures regarding the collection, use, and sharing of "Personal Information," as well as rights to access, delete, and restrict the sale of certain personal information collected about them. The CCPA went into effect on January 1, 2020, and compliance with that law will increase the cost of providing our services in California. More generally, the FTC and state attorneys general 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. Additionally, all 50 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.

Certain of our businesses are subject to the EU's General Data Protection Regulation ("GDPR"), which broadly regulates the processing of personal data collected from individuals in the EU. GDPR, and the Member States' legislation implementing the GDPR affect our ability to process certain personal data.

Privacy and data security legislation remained a priority issue in 2019. Attempts by state and local governments to regulate consumer privacy 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.

FCC 5G Spectrum Proceedings and Other Wireless Laws and Regulations

In multiple regulatory proceedings, the FCC has established or is in the process of evaluating and potentially modifying its rules to make available additional spectrum that will likely be used for new 5G services. Cable Communications and NBCUniversal use some of this spectrum to provide our services and there is a risk that certain proposed rule changes could affect our ability to use such spectrum and could disrupt certain operations. 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 ("ITFA"), 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 may challenge the ITFA or the application of the ITFA to our business, or may assert that certain taxes akin to right-of-way fees are not preempted by the ITFA.

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 upon the U.K.'s withdrawal from 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, pole attachments, universal service fees, public safety, telemarketing, leased access, indecency, loudness of commercial advertisements, advertising, political broadcasting, Emergency Alert System, equal employment opportunity and other employment-related laws, environmental-related matters, 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 or being subject to other sanctions.

Employees

As of December 31, 2019, we had approximately 190,000 full-time and part-time employees calculated on a full-time equivalent basis. Of these employees, approximately 88,000, 66,000 and 34,000 were associated with Cable Communications, NBCUniversal and Sky, 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 operate in highly competitive and dynamic industries, 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. OTT service providers continue to proliferate, complicating the competitive landscape by influencing consumer behavior and challenging existing business models, which is discussed in more detail in the risk factor immediately below.

For example:

- Competition for Cable Communications' video, high-speed internet and voice 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. Sky faces competition for its video, high-speed internet and voice services from cable and telecommunications providers in its European markets, many of which offer customers bundled services, which has increased competition. Increasingly, additional companies, some with significant financial resources or fewer regulatory burdens, have entered, or are seeking to enter, the video distribution market by offering OTT streaming services or selling devices that aggregate viewing of various OTT services. Many OTT service providers offer smaller packages of channels or subscriptions to access programming at price points lower than our standard packages or for free, which adversely affects demand for Cable Communications' and Sky's traditional DTH video services, including for expanded video packages, premium networks, and DVR and On Demand 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 and fixed wireless routers that connect to such services, 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 in the future.
- NBCUniversal and Sky 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 to operate their businesses. This competition has intensified as OTT service providers seek to develop high-quality programming to attract viewers.

For a more detailed description of the competition facing our businesses, see Item 1: Business and refer to the "Competition" discussion within that section.

Consolidation of, or cooperation between, our competitors, including suppliers and distributors of content, may increase competition in all of these areas. For example, consolidation or cooperation between phone companies (which are also wireless distributors) and content providers may allow competitors to offer free or lower cost streaming services, potentially on an exclusive basis, through unlimited data-usage plans for internet or wireless phone services.

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

While we continue to seek ways to enhance the value of our businesses, such as by growing high-speed internet services and business services and by investing in new theme parks and Peacock, 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 operating margins or to compete successfully in the future. There can be no assurance that we will be able to compete effectively against existing or new competitors or that competition will not have an adverse effect on our businesses.

Changes in consumer behavior driven by online video distribution platforms for viewing content continue to 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 have driven, and will continue to drive, 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 is reducing 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. These changing consumer behaviors also are occurring in Europe, as more of Sky's new video customers have recently subscribed, and may continue to subscribe, to Sky's OTT video service instead of its traditional DTH video service. Although we have attempted to adapt our video service offerings and enhance our high-speed internet services for changing consumer behaviors, for example, by deploying the X1 and Sky Q platforms and Flex, which can more easily aggregate linear and OTT programming choices for our customers, the continuing trend of OTT service providers delivering their content directly to consumers over the internet rather than through, or in addition to, traditional video distribution services continues to disrupt traditional video distribution business models.

The increase in OTT service providers also has significantly increased the number of entertainment choices available to consumers, which has intensified audience fragmentation and disaggregated the way that content traditionally has been distributed and viewed by consumers. Time-shifting technologies, such as DVR and on demand 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 our programming channels. Reduced ratings may adversely affect the price and amount of advertising that advertisers are willing to purchase from us and the amount that we receive for distribution of our content. In addition, as more programming providers offer their content directly to consumers, they may reduce the quantity and quality of the programming they license to NBCUniversal or Sky's programming channels.

Our failure to effectively anticipate or adapt to emerging competitors or changes in consumer behavior, including among younger consumers, and shifting business models 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.

Cable Communications, NBCUniversal and Sky 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, audience fragmentation, increased viewing of content through OTT service providers, regulatory intervention regarding where and when advertising may be placed, or economic conditions generally. In addition, advertisers have increasingly shifted their expenditures to digital media and their willingness to purchase advertising from us may be adversely affected by lower audience ratings, which many of NBCUniversal's networks and some of 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 through OTT services or delayed viewing through DVR or on demand services, 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 deployment of Flex and Sky Q set-top boxes 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 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 other 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 where it operates. The FCC, FTC 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. In addition, regulators and the courts could adopt new interpretations of existing competition laws as new competition law theories emerge. 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 statutes, rules or regulations, or prescribe new ones, any of which may address communications and other issues that could significantly affect our businesses. These legislators and regulators have been active in considering legislation and rulemakings regarding our services, at times looking to adopt regulatory approaches from different countries that may be more burdensome. 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. 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.

NBCUniversal and Sky 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 television programming, 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 at NBCUniversal and Sky, in our films and for new theme parks and theme park attractions, before learning the extent to which they will earn consumer acceptance. We also are incurring significant costs to develop Peacock, and there can be no assurance that consumers and advertisers will embrace this offering.

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, 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. We also may be unable to license popular third-party content for NBCUniversal's and Sky's

programming channels if media companies launch successful OTT services for their owned content such that they forgo license fees from us and only provide their content directly to consumers.

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 timing and amount of rights payments, and the ability of NBCUniversal to secure distribution from, impose surcharges on, or obtain carriage on multichannel video providers. 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 programming distribution and licensing 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. The number of subscribers to NBCUniversal's cable networks has been, and likely will continue to be, reduced as a result of fewer subscribers to multichannel video providers. Sky also depends on its ability to secure and maintain wholesale distribution agreements for its television channels with multichannel video providers.

Increasingly, NBCUniversal and Sky are entering into agreements to license their prior season and library content on other distribution platforms, including OTT services. If this programming does not attract sufficient viewers, traditional and virtual multichannel video providers may not distribute NBCUniversal's or Sky's programming, and OTT services may not license programming NBCUniversal or Sky creates. In addition, we expect not to license certain popular content, and we may decide not to license additional popular content that we own, to third parties so we may offer it exclusively through Peacock, which would result in foregone licensing revenue.

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 these agreements will be entered into or renewed in the future on acceptable terms. The inability to enter into or renew these agreements could reduce our revenues and the reach of our programming, which could adversely affect NBCUniversal's and Sky's businesses.

Less favorable telecommunications access regulations, 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 third-party 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 regimes in the U.K. and Italy, Sky is able to access networks owned by third-party telecommunications providers to offer its high-speed internet and phone services, in most cases, on regulated terms, including price. If there is a change in regulation in the U.K, Italy or other markets where Sky accesses networks owned by third-party telecommunications providers, the 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. As a result, 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, which would adversely affect Sky's businesses and results of operations.

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 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 by third parties to cause such systems-related events and security breaches and to identify our security architecture or system design vulnerabilities. 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, we have experienced systems-related events and breaches in the past, and 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 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 breach or terminate their agreements with us or 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 services to which they subscribe, or may discontinue subscribing to one or more of Cable Communications' 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 negatively impact 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 the development of Peacock and new theme parks. In connection with such acquisitions and strategic initiatives, we may incur significant or 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 pursuing certain transactions. The occurrence of any of these events could have an adverse effect on our business and results of operations.

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

We 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, tariffs and 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. Although we employ foreign currency derivative instruments to hedge certain exposure to foreign currency exchange rate risks, including the British pound and Euro, the use of such derivative instruments may not be sufficient to mitigate exchange

rate fluctuations, Sky's businesses in particular are also subject to risks relating to uncertainties and effects of the U.K.'s withdrawal 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 or our conduct does not comply with such laws and regulations, our businesses may be adversely affected.

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. Greater constraints on the use of arbitration to resolve certain of these disputes could adversely affect our business. 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, NBCUniversal and Sky 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 cause negative publicity or lose their current appeal, our businesses could 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, 2019. 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 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. Construction of the Comcast Technology Center was completed in 2019. 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. 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. 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 substantially all of 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 Television 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 currently constructing new theme parks in Beijing, China and Orlando, Florida.

Sky Segment

Sky's principal physical assets consist of operating plant and equipment, including leased satellite system signal receiving, encoding and decoding devices, and owned and leased headends and distribution networks, including coaxial, fiber-optic cables and other related equipment. In the U.K., Sky uses a combination of its own core fiber network and wholesaling arrangements over third-party telecommunication providers' networks as the core network and also accesses the "last mile" network from third-party network operators for a fee to provide its services to customers. The physical components of cable systems require periodic maintenance and replacement.

Sky's corporate headquarters are located in Middlesex, U.K. 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, 2019.

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

2019		2018	
Month Declared:	Dividend Per Share	Month Declared:	Dividend Per Share
January	\$ 0.21	January	\$ 0.19
May	\$ 0.21	May	\$ 0.19
July	\$ 0.21	July	\$ 0.19
October (paid in January 2020)	\$ 0.21	October (paid in January 2019)	\$ 0.19
Total	\$ 0.84	Total	\$ 0.76

We expect to continue to pay quarterly dividends, although each dividend is subject to approval by our Board of Directors. In January 2020, our Board of Directors approved a 10% increase in our dividend to \$0.92 per share on an annualized basis.

Holders of Class A common stock in the aggregate hold 66⅔% 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 33⅓% 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, 2019 are presented in the table below.

Stock Class	Record Holders
Class A Common Stock	388,600
Class B Common Stock	3

There were no common stock repurchases during 2019. 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, 2019, \$2 billion remained under our share repurchase program authorization. Common stock repurchases referenced above exclude shares withheld upon the vesting or exercise of employee share-based awards to settle tax withholding obligations.

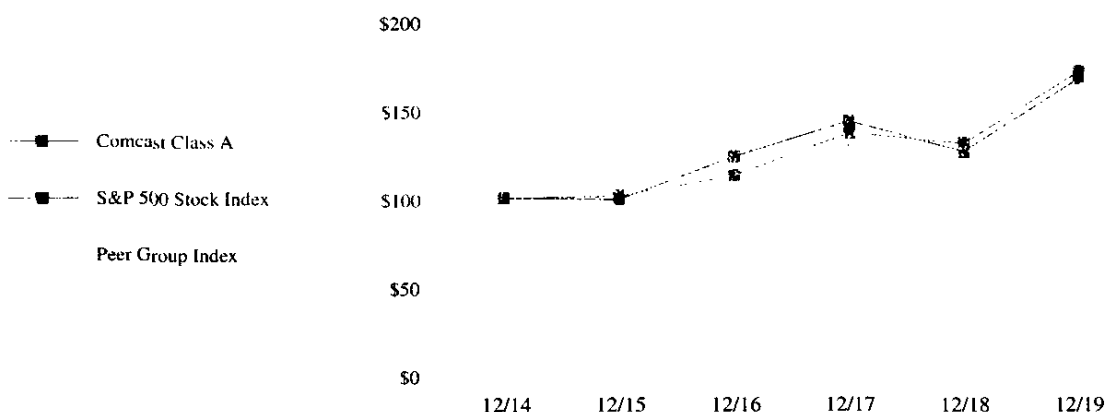
Stock Performance Graph

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, 2019 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 consists of our Class A common stock and the common stock of 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 The Walt Disney Company, ViacomCBS Inc. (Class B) (formerly CBS Corporation (Class B)), Viacom Inc. (Class B) (which is included through December 4, 2019 when it merged with CBS Corporation to form ViacomCBS Inc.), Twenty-First Century Fox, Inc. (Class A) (which is included through March 21, 2019 when it merged with the Walt Disney Company) and Discovery, Inc. (Class A) (the "media subgroup").

The peer group is constructed as a composite peer group in which the transmission and distribution subgroup is weighted 66% and the media subgroup is weighted 34% based on the respective revenue of our transmission and distribution and media businesses. The comparison assumes \$100 was invested on December 31, 2014 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



	2015	2016	2017	2018	2019
Comcast Class A	\$ 99	\$ 124	\$ 145	\$ 127	\$ 170
S&P 500 Stock Index	\$ 101	\$ 113	\$ 138	\$ 132	\$ 174
Peer Group Index	\$ 102	\$ 127	\$ 133	\$ 123	\$ 161

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)	2019 ^(c)	2018 ^(c)	2017 ^(d)	2016	2015
Statement of Income Data					
Revenue	\$ 108,942	\$ 94,507	\$ 85,029	\$ 80,736	\$ 74,510
Operating income	21,125	19,009	18,018	16,831	15,998
Net income attributable to Comcast Corporation ^(a)	13,057	11,731	22,735	8,678	8,163
Basic earnings per common share attributable to Comcast Corporation shareholders	2.87	2.56	4.83	1.80	1.64
Diluted earnings per common share attributable to Comcast Corporation shareholders	2.83	2.53	4.75	1.78	1.62
Dividends declared per common share	0.84	0.76	0.63	0.55	0.50
Balance Sheet Data (at year end)					
Total assets	\$ 263,414	\$ 251,684	\$ 187,462	\$ 181,017	\$ 166,574
Long-term debt ^(b)	102,217	111,743	64,556	61,046	52,621
Comcast Corporation shareholders' equity	82,726	71,613	68,616	53,932	52,269
Statement of Cash Flows Data					
Net cash provided by (used in):					
Operating activities	\$ 25,697	\$ 24,297	\$ 21,261	\$ 19,691	\$ 19,485
Investing activities	(14,841)	(50,854)	(13,533)	(18,265)	(11,964)
Financing activities	(9,181)	27,140	(7,572)	(434)	(9,136)

(a) For 2019 and 2018, 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 2019, 2018, 2017, 2016 and 2015, net income attributable to Comcast Corporation is stated after deducting net income attributable to noncontrolling interests of \$266 million, \$131 million, \$187 million, \$350 million and \$250 million, respectively.

(b) Includes long-term debt and the current portion of long-term debt as presented in the consolidated balance sheet. Refer to footnotes to Comcast's consolidated financial statements for discussion of our accounting policies related to debt obligations.

(c) 2019 and 2018 amounts include the results of operations of Sky from date of acquisition on October 9, 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 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 management's discussion and analysis of financial condition and results of operations include:

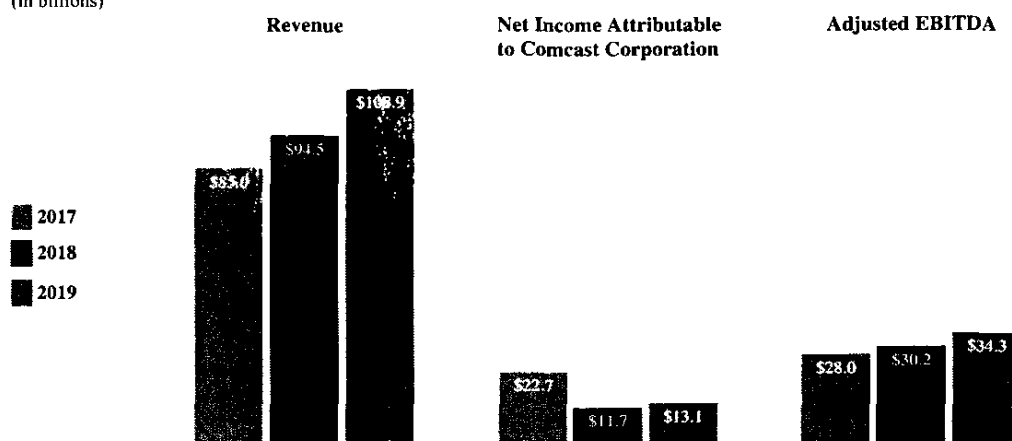
- Overview
- Results of Operations
- Non-GAAP Financial Measures
- Liquidity and Capital Resources
- Contractual Obligations
- Off-Balance Sheet Arrangements
- Recent Accounting Pronouncements
- Critical Accounting Judgments and Estimates

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. Following October 9, 2018, Sky's results of operations are included in our consolidated results of operations. For more information about our company's operations, see Item 1: Business. Additionally, refer to Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2018 Annual Report on Form 10-K for management's discussion and analysis of financial condition and results of operations for the fiscal year 2018 compared to fiscal year 2017.

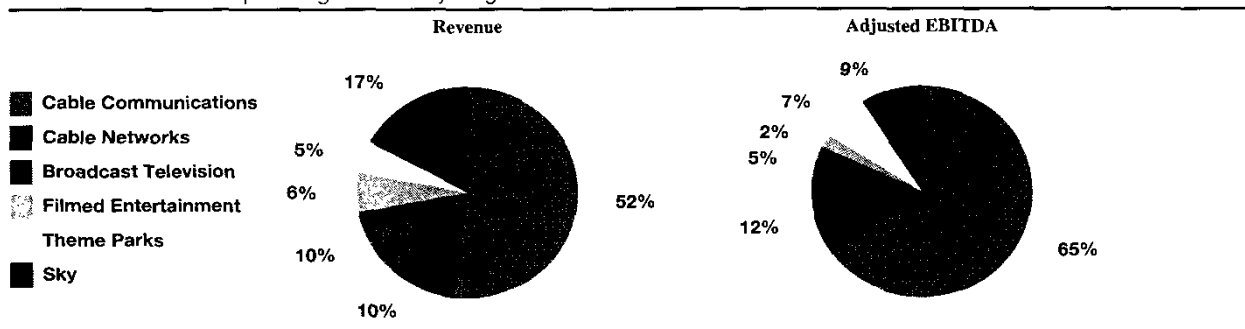
Consolidated Revenue, Net Income Attributable to Comcast Corporation and Adjusted EBITDA^(a)

(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 51 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.

2019 Consolidated Operating Results by Segment^(a)



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

2019 Developments

The following are the more significant developments in our businesses during 2019:

Cable Communications Segment

- Revenue increased 3.7% to \$58.1 billion, reflecting increases in high-speed internet, business services and wireless revenue, partially offset by declines in advertising, video and voice revenue
- Adjusted EBITDA increased 7.3% to \$23.3 billion
- Operating margin increased from 38.7% to 40.1%, reflecting increases in revenue from high-speed internet and business services and decreases in losses in our wireless business, partially offset by higher technical and product support expenses
- Capital expenditures decreased 10.5% to \$6.9 billion, reflecting lower spending on scalable infrastructure and customer premise equipment, partially offset by an increase in support capital

NBCUniversal Segments

- Total NBCUniversal revenue decreased 5.0% to \$34.0 billion and total NBCUniversal Adjusted EBITDA increased 2.0% to \$8.8 billion
- Broadcast Television and Cable Networks segments revenue decreased 10.3% to \$10.3 billion and 2.2% to \$11.5 billion, respectively, reflecting the impact of our broadcasts of the 2018 PyeongChang Olympics and 2018 Super Bowl; excluding revenue associated with the 2018 PyeongChang Olympics and 2018 Super Bowl, Cable Networks and Broadcast Television segments revenue increased 1.0% and 0.1%, respectively, with the increase in Cable Networks primarily due to increases in distribution revenue, partially offset by decreases in content licensing revenue
- Filmed Entertainment segment revenue decreased 9.2% to \$6.5 billion, reflecting lower theatrical, home entertainment and other revenue, partially offset by an increase in content licensing
- Theme Parks segment revenue increased 4.4% to \$5.9 billion, reflecting increased guest spending and higher attendance in 2019 due, in part, to natural disasters that negatively impacted attendance in Japan in 2018
- Announced that Universal Orlando Resort is building an additional theme park named Universal's Epic Universe

Sky Segment

- Sky's results of operations for the full year 2019 are included in our consolidated results, with revenue of \$19.2 billion and Adjusted EBITDA of \$3.1 billion
- On a pro forma basis, Sky revenue decreased 3.0% to \$19.2 billion. Excluding the impact of foreign currency, pro forma Sky revenue increased 1.7% primarily due to increases in content and direct-to-consumer revenues, partially offset by a decrease in advertising revenue
- On a pro forma basis, Sky Adjusted EBITDA increased 7.1% to \$3.1 billion. Excluding the impact of foreign currency, pro forma Sky Adjusted EBITDA increased 12.2% primarily due to contract termination costs and costs related to a settlement in the prior year period.

Other

- Corporate and Other revenue decreased 35.0% to \$333 million primarily due to the sale of a controlling interest in our arena management-related businesses in the second quarter of 2018
- Corporate and Other Adjusted EBITDA losses increased 12.9% to \$880 million primarily due to costs associated with the development of Peacock
- Announced Peacock, our direct-to-consumer streaming service that will feature NBCUniversal content, which is expected to be launched in 2020
- Entered into a series of agreements in May 2019 with Disney, whereby Disney assumed full operational control of Hulu, LLC (“Hulu”) in exchange for certain put and call provisions regarding our ownership interest, and in August 2019, we received proceeds of \$5.2 billion from a collateralized obligation secured by the proceeds guaranteed under the put and call provisions
- Repaid \$15.6 billion of debt, including senior notes and term loans, and net repayments of commercial paper, which were funded with cash on hand, proceeds from the collateralized obligation related to Hulu and proceeds from the \$4.8 billion issuance of senior notes in November 2019

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 content 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 high-speed internet services more important to consumers. In addition, the increasing number of entertainment choices available to consumers has intensified audience fragmentation and disaggregated the way that content traditionally has been viewed by consumers. This increase has caused and likely will continue to cause audience ratings declines at our programming channels.

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 operate in highly competitive and dynamic industries, 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 continue to adversely affect our businesses and challenge existing business models.”

Seasonality and Cyclicity

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

Consolidated Operating Results

Year ended December 31 (in millions, except per share data)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue	\$ 108,942	\$ 94,507	\$ 85,029	15.3%	11.1 %
Costs and Expenses:					
Programming and production	34,440	29,692	25,355	16.0	17.1
Other operating and administrative	32,807	28,094	25,449	16.8	10.4
Advertising, marketing and promotion	7,617	7,036	6,519	8.2	7.9
Depreciation	8,663	8,281	7,914	4.6	4.6
Amortization	4,290	2,736	2,216	56.8	23.5
Other operating gains	—	(341)	(442)	NM	NM
Total costs and expenses	87,817	75,498	67,011	16.3	12.7
Operating income	21,125	19,009	18,018	11.1	5.5
Interest expense	(4,567)	(3,542)	(3,086)	28.9	14.8
Investment and other income (loss), net	438	(225)	421	294.6	(153.4)
Income before income taxes	16,996	15,242	15,353	11.5	(0.7)
Income tax (expense) benefit	(3,673)	(3,380)	7,569	8.7	(144.7)
Net income	13,323	11,862	22,922	12.3	(48.2)
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	266	131	187	102.7	(29.8)
Net income attributable to Comcast Corporation	\$ 13,057	\$ 11,731	\$ 22,735	11.3%	(48.4)%
Basic earnings per common share attributable to Comcast Corporation shareholders	\$ 2.87	\$ 2.56	\$ 4.83	12.1%	(47.0)%
Diluted earnings per common share attributable to Comcast Corporation shareholders	\$ 2.83	\$ 2.53	\$ 4.75	11.9%	(46.7)%
Adjusted EBITDA^(a)	\$ 34,258	\$ 30,165	\$ 27,956	13.6%	7.9 %

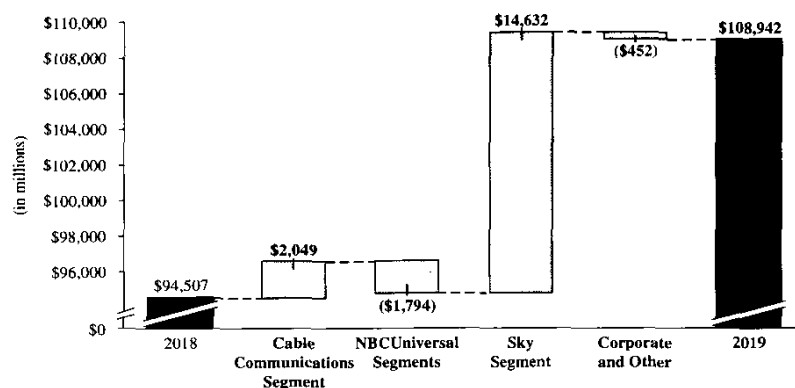
All percentages are calculated based on actual amounts. Minor differences may exist due to rounding. Percentage changes that are considered not meaningful are denoted with NM.

(a) Adjusted EBITDA is a non-GAAP financial measure. Refer to the "Non-GAAP Financial Measure" section on page 51 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.

The comparability of our consolidated results of operations was impacted by the Sky transaction in the fourth quarter of 2018. Sky's results of operations are included in our consolidated financial statements following the October 9, 2018 acquisition date.

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.



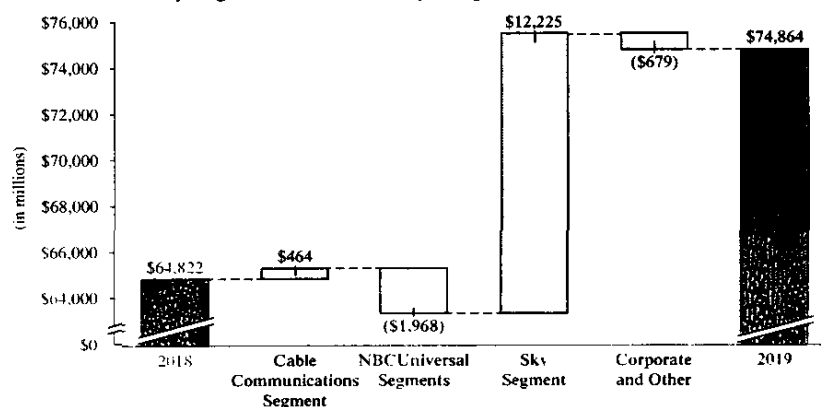
The primary drivers of the change in revenue from 2018 to 2019 were as follows:

- Our acquisition of Sky in the fourth quarter of 2018, resulting in the inclusion of a full year of results for 2019
- Growth in our Cable Communications segment driven by increased revenue from residential high-speed internet, business services and wireless, partially offset by decreased revenue from advertising, video and voice
- A decrease in NBCUniversal revenue primarily due to the absence of revenue associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl

Revenue for our segments and other businesses are discussed separately below under the heading “Segment Operating Results.”

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 change in operating costs and expenses from 2018 to 2019 were as follows:

- Our acquisition of Sky in the fourth quarter of 2018, resulting in the inclusion of a full year of results for 2019
- A decrease in NBCUniversal programming and production expenses primarily due to the absence of expenses associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl
- An increase in technical and product support costs in our Cable Communications segment

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

Consolidated Depreciation and Amortization Expense

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Cable Communications	\$ 7,994	\$ 8,262	\$ 8,019	(3.2)%	3.0%
NBCUniversal	2,129	2,108	2,041	0.9	3.3
Sky	2,699	539	—	NM	NM
Corporate and Other	131	108	70	21.4	56.3
Comcast Consolidated	\$ 12,953	\$ 11,017	\$ 10,130	17.6 %	8.8%

Percentage changes that are considered not meaningful are denoted with NM.

Consolidated depreciation and amortization expense increased in 2019 primarily due to the acquisition of Sky in the fourth quarter of 2018, with a full year of expense included in our results of operations for 2019. Additionally, during the first quarter of 2019, we recorded adjustments to the purchase price allocation of Sky, primarily related to intangible assets and property and equipment. This change resulted in an adjustment recorded in the first quarter of 2019 related to the fourth quarter of 2018 that increased depreciation and amortization expense by \$53 million.

Cable Communications depreciation and amortization expense decreased due to lower spending on scalable infrastructure and customer premise equipment, partially offset by an increase in support capital. NBCUniversal depreciation and amortization expense was flat in 2019.

Amortization expense from acquisition-related intangible assets, such as customer relationships, totaled \$2.0 billion, \$1.1 billion and \$824 million for 2019, 2018 and 2017, respectively. Amounts primarily relate to customer relationship intangible assets recorded in connection with the Sky transaction in the fourth quarter of 2018 (see Note 8 to Comcast's consolidated financial statements) and the NBCUniversal transaction in 2011.

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 (see Note 10 to Comcast's consolidated financial statements) and \$141 million related to the sale of a business in our Filmed Entertainment segment.

Consolidated Interest Expense

Interest expense increased in 2019 compared to 2018 primarily due to increases in our debt outstanding associated with the financing of and debt assumed in connection with the Sky transaction in the fourth quarter of 2018, as well as a \$56 million charge related to the early redemption of debt that was recorded in the third quarter of 2019.

Consolidated Investment and Other Income (Loss), Net

Year ended December 31 (in millions)	2019	2018	2017
Equity in net income (losses) of investees, net	\$ (505)	\$ (364)	\$ 107
Realized and unrealized gains (losses) on equity securities, net	656	(187)	(17)
Other income (loss), net	287	326	331
Total investment and other income (loss), net	\$ 438	\$ (225)	\$ 421

Equity in Net Income (Losses) of Investees, Net

The change in equity in net income (losses) of investees, net in 2019 compared to 2018 was primarily due to our equity method investments in Hulu and Atairos Group, Inc. ("Atairos"). The losses at Hulu were primarily due to programming, advertising and marketing costs, and higher other administrative expenses. 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 income. We recognize our share of these gains and losses in equity in net income (losses) of investees, net. The income (losses) at Atairos were driven by fair value adjustments on its underlying investments. The table below summarizes the equity in net income (losses) of Hulu and Atairos in 2019, 2018 and 2017.

Year ended December 31 (in millions)	2019	2018	2017
Hulu	\$ (473)	\$ (454)	\$ (276)
Atairos	\$ (64)	\$ (31)	\$ 281

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

The change in realized and unrealized gains (losses) on equity securities, net in 2019 compared to 2018 was primarily due to gains of \$293 million related to our interest in Snap, which was sold in 2019, compared to losses of \$268 million in 2018, and unrealized gains of \$184 million related to our investment in Peloton Interactive, Inc. ("Peloton").

Other Income (Loss), Net

The change in other income (loss), net in 2019 compared to 2018 was primarily due to the recognition of \$219 million of gains related to the dilution of our Hulu ownership and \$90 million of losses due to the impairment of an equity method investment. See Note 10 to Comcast's consolidated financial statements and Note 9 to NBCUniversal's consolidated financial statements for further information.

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 2019 and 2018 was 21.6% and 22.2%, respectively.

In 2019, the effective income tax rate included \$125 million of benefits related to state income tax adjustments recognized in the third quarter of 2019.

In 2018, the effective income tax rate included the effects of an income tax benefit of \$244 million recognized during the fourth quarter of 2018 related to a reduction of our net deferred tax liability as a result of the acquisition of Sky and \$128 million recognized during the first quarter of 2018 related to the enactment of additional federal tax legislation in 2018, partially offset by \$148 million of income tax expense due to state and federal tax law changes that were enacted in the third quarter of 2018.

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

The increase in net income attributable to noncontrolling interests and redeemable subsidiary preferred stock in 2019 compared to 2018 was primarily due to an increase in the redemption value of one of our noncontrolling interests.

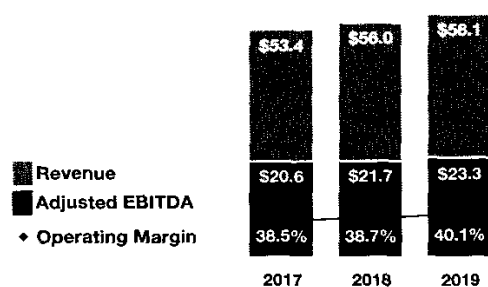
Segment Operating Results

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 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).

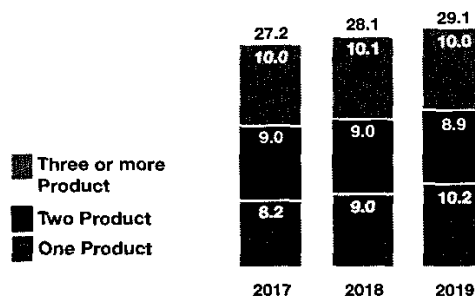
Beginning in the first quarter of 2019, Comcast Cable's wireless phone service and certain other Cable-related business development initiatives are presented in the Cable Communications segment. Results were previously presented in Corporate and Other. Prior periods have been adjusted to reflect this presentation.

Cable Communications Segment Results of Operations

Revenue and Adjusted EBITDA (in billions)



Residential Customer Relationships (in millions)



Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue					
Residential:					
High-speed internet	\$ 18,752	\$ 17,144	\$ 15,681	9.4%	9.3%
Video	22,270	22,455	22,874	(0.8)	(1.8)
Voice	3,879	3,960	4,090	(2.1)	(3.2)
Wireless	1,167	890	329	31.2	170.3
Business services	7,795	7,129	6,437	9.3	10.7
Advertising	2,465	2,795	2,450	(11.8)	14.1
Other	1,754	1,660	1,538	5.7	7.9
Total revenue	58,082	56,033	53,399	3.7	4.9
Operating costs and expenses					
Programming	13,389	13,249	12,907	1.1	2.7
Technical and product support	7,973	7,569	6,846	5.3	10.6
Customer service	2,494	2,536	2,509	(1.6)	1.1
Advertising, marketing and promotion	4,014	4,002	3,866	0.3	3.5
Franchise and other regulatory fees	1,582	1,578	1,590	0.2	(0.8)
Other	5,364	5,418	5,126	(1.0)	5.7
Total operating costs and expenses	34,816	34,352	32,844	1.4	4.6
Adjusted EBITDA	\$ 23,266	\$ 21,681	\$ 20,555	7.3%	5.5%

Customer Metrics

(in thousands)	2019	2018	2017	Net Additions		
				2019	2018	2017
Customer relationships						
Residential customer relationships	29,149	28,109	27,185	1,040	925	651
Business services customer relationships	2,396	2,303	2,179	94	123	135
Total customer relationships	31,545	30,412	29,364	1,134	1,048	787
Residential customer relationships mix						
One product customers	10,247	9,015	8,174	1,232	840	418
Two product customers	8,923	8,992	9,018	(69)	(25)	221
Three or more product customers	9,979	10,102	9,993	(123)	110	13
High-speed internet						
Residential customers	26,414	25,097	23,863	1,317	1,234	1,036
Business services customers	2,215	2,125	2,006	89	120	132
Total high-speed internet customers	28,629	27,222	25,869	1,406	1,353	1,168
Video						
Residential customers	20,288	20,959	21,303	(671)	(344)	(186)
Business services customers	966	1,027	1,054	(61)	(27)	35
Total video customers	21,254	21,986	22,357	(733)	(370)	(151)
Voice						
Residential customers	9,934	10,153	10,316	(218)	(163)	(231)
Business services customers	1,342	1,297	1,236	46	60	96
Total voice customers	11,276	11,449	11,552	(173)	(103)	(135)
Security and automation						
Security and automation customers	1,375	1,317	1,131	59	186	239
Wireless						
Wireless lines	2,052	1,236	381	816	854	381

Customer metrics are presented based on actual amounts. Minor differences may exist due to rounding. Customer relationships represent the number of residential and business customers that subscribe to at least one of our services. One product, two product, and three or more product customers represent residential customers that subscribe to one, two, or three or more of our services, respectively. For MDUs, including buildings located on college campuses, whose residents have the ability to receive additional services, such as additional programming choices or our HD or DVR 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 services, the MDU is counted as a single customer. Residential high-speed internet and video customers as of December 31, 2019 included prepaid customers totaling approximately 196,000 and 7,000, respectively. Wireless lines represent the number of activated eligible wireless devices on customers' accounts. Individual customer relationships may have multiple wireless lines.

	2019	2018	2017
Average monthly total revenue per customer relationship	\$ 156.24	\$ 156.23	\$ 153.60
Average monthly Adjusted EBITDA per customer relationship	\$ 62.59	\$ 60.45	\$ 59.13

Average monthly total revenue per customer relationship 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.

Each of our 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

We are a leading provider of high-speed internet, video, voice, wireless, and security and automation services to residential customers in the United States under the Xfinity brand; we also provide these and other services to business customers and sell advertising. We generate revenue primarily from residential and business customers that subscribe to our services, which we market individually and as bundled services. We also generate 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

We offer 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 also deploy wireless gateways to customers that combine an internet and voice modem with a Wi-Fi router to deliver reliable internet speeds and enhanced coverage through an in-and-out-of-home Wi-Fi network. Customers with xFi-enabled wireless gateways may also 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, advanced security, 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.

Revenue increased in 2019 primarily due to an increase in the number of residential high-speed internet customers. The remaining increase in revenue in 2019 was due to an increase in average rates.

Video

We offer 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 services.

Revenue was flat in 2019 primarily due to a decline in the number of residential video customers, offset by an increase in average rates.

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 as a result of the competitive environment and shifting video consumption patterns. 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

We offer voice services that provide local and long-distance calling and other related features.

Revenue decreased in 2019 primarily due to a decline in the number of residential voice customers.

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

Wireless

We offer wireless phone services to customers that may choose to pay for services on an unlimited data plan or per gigabyte of data used.

Revenue increased in 2019 primarily due to an increase in the number of customer lines.

Business Services

We offer a variety of products and services to businesses. Our service offerings for small business locations primarily include high-speed internet services, as well as voice and video services, that are similar to those provided to residential customers, as well as cloud-based cybersecurity services, wireless backup connectivity, advanced Wi-Fi solutions, video monitoring services and cloud-based services 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, along with video solutions that serve hotels and other large venues. In addition, we provide cellular backhaul services to mobile network operators to help them manage their network bandwidth.

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

Revenue increased in 2019 primarily due to an increase in the number of customers receiving our services and an increase in average rates.

Advertising

As part of our distribution agreements with cable networks, we generally receive an allocation of scheduled advertising time that is sold through our advertising business to local, regional and national advertisers. In most cases, the available advertising units are sold by our sales force. 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. We also represent the advertising sales efforts of other multichannel video providers in some markets. In addition, we generate revenue from the sale of advertising on our digital platforms. We also provide 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. Revenue is affected by the strength of the advertising market, general economic conditions, and cyclicalities related to political campaigns and issue-oriented advertising.

Revenue decreased in 2019 primarily due to a decrease in political advertising revenue. Excluding political advertising revenue, advertising revenue was consistent with the prior year.

In 2019, 5% of our advertising revenue was generated from our NBCUniversal segments, compared to 4% and 5% in 2018 and 2017, respectively. 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 our security and automation services. We also receive revenue related to residential customer late fees and from other services, such as the licensing of our technology platforms to other multichannel video providers.

Revenue increased in 2019 primarily due to an increase in revenue from our security and automation services and the timing of the licensing of our technology platforms to other multichannel video providers.

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 customers. These expenses are affected by the programming license fees charged by content providers, the fees charged for retransmission of the signals from local broadcast television stations, the number of customers we serve and the amount of content we provide.

Programming expenses increased in 2019 primarily due to an increase in retransmission consent and sports programming fees, partially offset by a decline in the number of video subscribers.

We anticipate that our programming expenses will increase at rates higher than those experienced in 2019, due to the timing of contract renewals in 2020.

Technical and Product Support Expenses

Expenses include costs to complete service call and installation activities, as well as costs for network operations, product development, fulfillment and provisioning, as well as the cost of wireless handsets and tablets sold to customers and monthly wholesale wireless access fees.

Expenses increased in 2019 primarily due to expenses related to the continued development, deployment and support of our products and services, expenses related to the continued growth in business services, and increased costs associated with our wireless phone service. Wireless phone service costs increased primarily due to an increase in the number of lines.

Customer Service Expenses

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

Expenses decreased in 2019 primarily due to lower personnel costs as a result of decreased customer call activity.

Advertising, Marketing and Promotion Expenses

Expenses include the costs associated with attracting new customers and promoting our service offerings.

Expenses were flat in 2019 primarily due to an increase in spending associated with attracting new customers, offset by the absence of advertising expenses associated with the 2018 PyeongChang Olympics.

Franchise and Other Regulatory Fees

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 were flat in 2019.

Other Expenses

Expenses primarily include personnel costs, advertising expenses, and building and facilities costs.

Other operating costs and expenses decreased in 2019 primarily due to increased costs incurred in the prior year as we continued to scale our wireless phone service, partially offset by higher personnel costs in the current year.

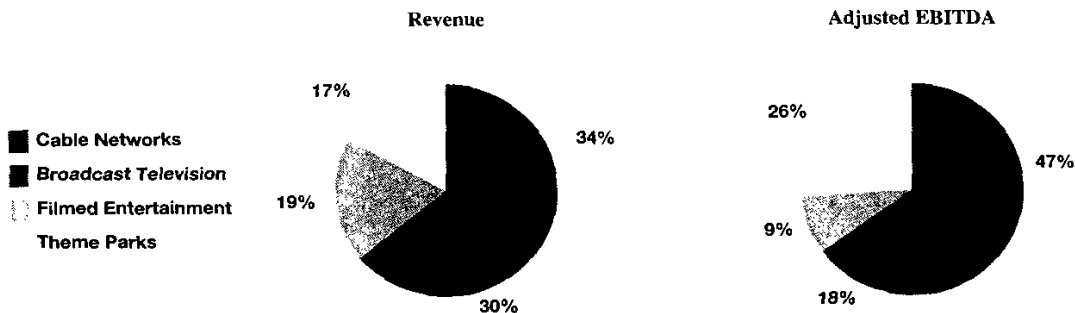
Cable Communications Segment – Operating Margin

Our operating margin is Adjusted EBITDA as a percentage of revenue. The most significant operating costs and expenses are the programming expenses we incur to provide content to our video customers, which increased 1.1% in 2019.

Our operating margin was 40.1%, 38.7% and 38.5% in 2019, 2018 and 2017, respectively. We continue to focus on growing our higher-margin businesses, particularly residential high-speed internet and business services, and on improving losses related to our wireless phone service and overall operating cost management. Losses from our wireless phone service were \$401 million, \$743 million and \$480 million in 2019, 2018 and 2017, respectively.

NBCUniversal Segments Overview

2019 NBCUniversal Segments Operating Results^(a)



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

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue					
Cable Networks	\$ 11,513	\$ 11,773	\$ 10,497	(2.2)%	12.2%
Broadcast Television	10,261	11,439	9,563	(10.3)	19.6
Filmed Entertainment	6,493	7,152	7,595	(9.2)	(5.8)
Theme Parks	5,933	5,683	5,443	4.4	4.4
Headquarters, other and eliminations	(233)	(286)	(262)	NM	NM
Total revenue	\$ 33,967	\$ 35,761	\$ 32,836	(5.0)%	8.9%
Adjusted EBITDA					
Cable Networks	\$ 4,444	\$ 4,428	\$ 4,053	0.4%	9.3%
Broadcast Television	1,730	1,657	1,251	4.4	32.5
Filmed Entertainment	833	734	1,276	13.5	(42.5)
Theme Parks	2,455	2,455	2,384	—	3.0
Headquarters, other and eliminations	(690)	(676)	(746)	NM	NM
Total Adjusted EBITDA	\$ 8,772	\$ 8,598	\$ 8,218	2.0%	4.6%

Percentage changes that are considered not meaningful are denoted with NM.

Cable Networks Segment Results of Operations

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue					
Distribution	\$ 6,790	\$ 6,826	\$ 6,081	(0.5)%	12.3%
Advertising	3,478	3,587	3,359	(3.0)	6.8
Content licensing and other	1,245	1,360	1,057	(8.5)	28.6
Total revenue	11,513	11,773	10,497	(2.2)	12.2
Operating costs and expenses					
Programming and production	5,107	5,357	4,599	(4.7)	16.5
Other operating and administrative	1,499	1,453	1,326	3.2	9.5
Advertising, marketing and promotion	463	535	519	(13.6)	3.2
Total operating costs and expenses	7,069	7,345	6,444	(3.8)	14.0
Adjusted EBITDA	\$ 4,444	\$ 4,428	\$ 4,053	0.4%	9.3%

Cable Networks Segment – Revenue

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)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Distribution	\$ 6,790	\$ 6,826	\$ 6,081	(0.5)%	12.3%
<i>Distribution, excluding 2018 PyeongChang Olympics</i>	<i>6,790</i>	<i>6,590</i>	<i>6,081</i>	<i>3.0</i>	<i>8.4</i>

Revenue was flat in 2019 compared to 2018, which included the revenue associated with our broadcast of the 2018 PyeongChang Olympics. Excluding \$236 million of revenue associated with our broadcast of the 2018 PyeongChang Olympics, distribution revenue increased in 2019 compared to 2018 primarily due to increases in the contractual rates charged under distribution agreements and the timing of contract renewals, partially offset by increased declines in the number of subscribers at our cable networks.

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)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Advertising	\$ 3,478	\$ 3,587	\$ 3,359	(3.0)%	6.8%
<i>Advertising, excluding 2018 PyeongChang Olympics</i>	<i>3,478</i>	<i>3,445</i>	<i>3,359</i>	<i>1.0</i>	<i>2.6</i>

Revenue decreased in 2019 primarily due to the absence of revenue associated with our broadcast of the 2018 PyeongChang Olympics. Excluding \$142 million of revenue associated with our broadcast of the 2018 PyeongChang Olympics, advertising revenue increased reflecting higher prices for advertising units sold, partially offset by declines in audience ratings at our networks.

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.

Revenue decreased in 2019 primarily due to the timing of content provided under our licensing agreements.

In 2019, 2018 and 2017, 15%, 14% 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

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.

Costs decreased in 2019 primarily due to the absence of costs associated with our broadcast of the 2018 PyeongChang Olympics.

Other Operating and Administrative Expenses

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

Expenses increased in 2019 primarily due to higher employee-related costs and increases in costs associated with our various digital properties.

Advertising, Marketing and Promotion Expenses

Expenses consist primarily of the costs associated with promoting programming on our cable networks and digital properties.

Expenses decreased in 2019 primarily due to lower spending on marketing related to our programming and digital properties, as well as the absence of spending on marketing related to the 2018 PyeongChang Olympics.

Broadcast Television Segment Results of Operations

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue					
Advertising	\$ 5,712	\$ 7,010	\$ 5,654	(18.5)%	24.0%
Content licensing	2,157	2,182	2,114	(1.1)	3.2
Distribution and other	2,392	2,247	1,795	6.4	25.2
Total revenue	10,261	11,439	9,563	(10.3)	19.6
Operating costs and expenses					
Programming and production	6,547	7,789	6,440	(15.9)	20.9
Other operating and administrative	1,564	1,547	1,391	1.1	11.1
Advertising, marketing and promotion	420	446	481	(5.9)	(7.3)
Total operating costs and expenses	8,531	9,782	8,312	(12.8)	17.7
Adjusted EBITDA	\$ 1,730	\$ 1,657	\$ 1,251	4.4%	32.5%

Broadcast Television Segment – Revenue

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, cyclicity related to political campaigns and issue-oriented advertising, and the success and ratings of our programming.

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Advertising	\$5,712	\$7,010	\$5,654	(18.5)%	24.0%
Advertising, excluding 2018 PyeongChang Olympics and 2018 Super Bowl	5,712	5,929	5,654	(3.7)	4.9

Revenue decreased in 2019 primarily due to the absence of revenue associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl. Excluding \$1.1 billion of revenue associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl, advertising revenue decreased due to the absence of revenue associated with Telemundo's broadcast of the 2018 FIFA World Cup Russia™, as well as the impact of continued declines in audience ratings, partially offset by higher pricing for advertising units sold.

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 decreased in 2019 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)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Distribution and other	\$2,392	\$2,247	\$1,795	6.4%	25.2%
<i>Distribution and other, excluding 2018 PyeongChang Olympics</i>	<i>2,392</i>	<i>2,135</i>	<i>1,795</i>	<i>12.0</i>	<i>19.0</i>

Revenue increased in 2019 primarily due to increases in fees recognized under our retransmission consent agreements, which was partially offset by the absence of \$112 million of revenue resulting from our broadcast of the 2018 PyeongChang Olympics.

Broadcast Television Segment – Operating Costs and Expenses

Programming and Production Costs

Expenses 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.

Expenses decreased in 2019 primarily due to the absence of costs associated with our broadcasts of the 2018 PyeongChang Olympics and the 2018 Super Bowl.

Other Operating and Administrative Expenses

Other operating and administrative costs and expenses include salaries, employee benefits, rent and other overhead expenses. Expenses increased in 2019 primarily due to increases in overhead expenses, partially offset by decreases in employee-related costs.

Advertising, Marketing and Promotion Expenses

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 2019 primarily due to decreased spending on marketing related to our sports and local programming.

Filmed Entertainment Segment Results of Operations

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue					
Theatrical	\$ 1,469	\$ 2,111	\$ 2,192	(30.4)%	(3.7)%
Content licensing	3,045	2,899	2,956	5.1	(1.9)
Home entertainment	957	1,048	1,287	(8.7)	(18.6)
Other	1,022	1,094	1,160	(6.7)	(5.7)
Total revenue	6,493	7,152	7,595	(9.2)	(5.8)
Operating costs and expenses					
Programming and production	2,949	3,446	3,500	(14.4)	(1.5)
Other operating and administrative	1,131	1,189	1,260	(4.9)	(5.7)
Advertising, marketing and promotion	1,580	1,783	1,559	(11.4)	14.3
Total operating costs and expenses	5,660	6,418	6,319	(11.8)	1.6
Adjusted EBITDA	\$ 833	\$ 734	\$ 1,276	13.5%	(42.5)%

Filmed Entertainment Segment – Revenue

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.

Revenue decreased in 2019 primarily due to the strength and volume of releases in our 2018 film slate, partially offset by the releases in our 2019 film slate. The following key titles released in each respective fiscal year were contributors to the drivers of changes in theatrical revenue:

Worldwide Theatrical Releases	
2019	2018
<i>Fast & Furious: Hobbs & Shaw</i>	<i>Jurassic World: Fallen Kingdom</i>
<i>How to Train Your Dragon: The Hidden World</i>	<i>Dr. Seuss' The Grinch</i>
<i>Secret Life of Pets 2</i>	<i>Mamma Mia! Here We Go Again</i>
<i>Us</i>	<i>Fifty Shades Freed</i>

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.

Revenue increased in 2019 primarily due to the timing of when content was made available under licensing agreements.

Home Entertainment

Revenue is generated from the sale of our produced and acquired films on DVDs to retail stores and rental kiosks, and through digital distribution services and video on demand services provided by multichannel video providers. 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.

Revenue decreased in 2019 primarily due to higher sales of 2018 releases in the prior year period, partially offset by sales of 2019 releases in the current year period. The following key titles released in each respective fiscal year were contributors to the drivers of changes in home entertainment revenue:

Home Entertainment Releases	
2019	2018
<i>How to Train Your Dragon: The Hidden World</i> <i>Fast & Furious: Hobbs & Shaw</i> <i>Dr. Seuss' The Grinch</i>	<i>Jurassic World: Fallen Kingdom</i> <i>Fifty Shades Freed</i> <i>Mamma Mia! Here We Go Again</i>

Other

Revenue is generated from Fandango, our movie ticketing and entertainment business, consumer products, the production and licensing of live stage plays, and the distribution of filmed entertainment produced by third parties.

Revenue decreased in 2019 primarily due to a decrease in revenue from consumer products and the absence of revenue associated with the sale of a business in 2018, partially offset by an increase in revenue from our movie ticketing and entertainment business.

Filmed Entertainment Segment – Operating Costs and Expenses

Programming and Production Costs

Expenses 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.

Expenses decreased in 2019 due to higher amortization of film production costs in 2018 compared to 2019.

Other Operating and Administrative Expenses

Expenses include salaries, employee benefits, rent and other overhead expenses.

Expenses decreased in 2019 primarily due to the absence of expenses associated with the sale of a business in 2018.

Advertising, Marketing and Promotion Expenses

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.

Expenses decreased in 2019 primarily due to higher spending on the marketing of releases in the prior year.

Theme Parks Segment Results of Operations

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue	\$ 5,933	\$ 5,683	\$ 5,443	4.4%	4.4%
Operating costs and expenses	3,478	3,228	3,059	7.7	5.5
Adjusted EBITDA	\$ 2,455	\$ 2,455	\$ 2,384	—%	3.0%

Theme Parks Segment – Revenue

Revenue is generated primarily from guest spending at Universal theme parks. Guest spending includes ticket sales and in-park spending on food, beverages and merchandise. Guest spending depends heavily on the general environment for travel and tourism, including consumer spending on travel and other recreational activities.

Revenue increased in 2019 due to increases in guest spending driven by new attractions, such as *Hagrid's Magical Creatures Motorbike Adventure*™ in Orlando, and also higher attendance due, in part, to natural disasters that negatively impacted attendance in Japan in 2018.

Theme Parks Segment – Operating Costs and Expenses

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.

Expenses increased in 2019 primarily due to higher costs to operate the parks and attractions.

NBCUniversal Headquarters, Other and Eliminations

Expenses incurred by our NBCUniversal businesses include overhead, personnel costs and costs associated with corporate initiatives. Expenses increased in 2019 primarily due to higher employee-related costs.

Sky Segment Results of Operations

Sky's results of operations are included in our consolidated financial statements following the October 9, 2018 acquisition date, impacting the comparability of results of operations from fiscal year 2018 to fiscal year 2019, and as a result, actual growth rates are not meaningful.

The discussion below compares Sky's actual results for 2019 to pro forma results for 2018. The pro forma segment information includes adjustments as if the Sky transaction occurred on January 1, 2017. Pro forma data is also adjusted for the effects of acquisition accounting and eliminating the costs and expenses directly related to the transaction, but does not include adjustments for costs related to integration activities, cost savings or synergies that have been or may be achieved by the combined business. Pro forma amounts are not necessarily indicative of what our results would have been had we operated the Sky business since January 1, 2017, nor of our future results.

Year ended December 31 (in millions)	2019		2018		% Change 2018 to 2019	
	Actual	Actual October 9 to December 31	Pro Forma Adjustments ^(a)	Pro Forma Combined	Pro Forma Combined Growth	Constant Currency Growth ^(b)
Revenue						
Direct-to-consumer	\$ 15,538	\$ 3,632	\$ 12,445	\$ 16,077	(3.4)%	1.4%
Content	1,432	304	944	1,248	14.7	19.7
Advertising	2,249	651	1,838	2,489	(9.6)	(5.4)
Total revenue	19,219	4,587	15,227	19,814	(3.0)	1.7
Operating costs and expenses						
Programming and production	8,865	2,137	6,685	8,822	0.5	5.4
Direct network costs	1,746	399	1,225	1,624	7.5	12.3
Other	5,509	1,359	5,115	6,474	(14.9)	(10.8)
Total operating costs and expenses	16,120	3,895	13,025	16,920	(4.7)	(0.1)
Adjusted EBITDA	\$ 3,099	\$ 692	\$ 2,202	\$ 2,894	7.1%	12.2%

All percentages are calculated based on actual amounts. Minor differences may exist due to rounding.

(a) Pro forma amounts include the results of operations for Sky for the period January 1, 2018 through October 8, 2018, as well as acquisition accounting adjustments.

(b) Constant currency growth is a non-GAAP financial measure. Refer to the "Non-GAAP Financial Measures" section on page 51 for additional information, including our definition and our use of constant currency, and for a reconciliation of Sky's constant currency growth rates.

Customer Metrics

(in thousands)	2019		2018	
	Actual	Actual	Actual	Pro Forma
Total customer relationships	23,994	23,600	394	735

Sky customer relationships represent the number of residential retail customers that subscribe to at least one of Sky's four primary services of video, high-speed internet, voice and wireless phone service. Commercial retail customers include hotels, bars, workplaces and restaurants with an active subscription for the purpose of providing Sky services to customers. Sky reports commercial customers based on the number of commercial agreements per venue in the U.K., a residential equivalent unit based upon the multiple of residential customer revenue in Italy and the number of active venues (bars and restaurants) or rooms (hotels and clinics) in Germany.

	2019	2018	% Change 2018 to 2019	
	Actual	Pro Forma	Pro Forma Growth	Constant Currency Growth ^(a)
Average monthly direct-to-consumer revenue per customer relationship	\$ 54.41	\$ 57.67	(5.7)%	(1.0)%

(a) Constant currency growth is a non-GAAP financial measure. Refer to the "Non-GAAP Financial Measures" section on page 51 for additional information, including our definition and our use of constant currency, and for a reconciliation of Sky's constant currency growth rates.

Average monthly direct-to-consumer revenue per customer relationship is impacted by rate adjustments and changes in the types and levels of services received by Sky's customers. Each of Sky's services has a different contribution to Adjusted EBITDA.

Sky Segment – Revenue

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, voice 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 and weekly passes, and pay-per-view programming.

Revenue decreased in 2019 compared to 2018. Excluding the impact of foreign currency, revenue increased primarily due to increases in customer relationships, partially offset by decreases in average revenue per customer relationship.

Content

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

Revenue increased in 2019 compared to 2018. Excluding the impact of foreign currency, revenue increased reflecting the wholesaling of sports programming, including exclusive sports rights acquired in Italy and Germany and the monetization of Sky's slate of original programming.

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.

Revenue decreased in 2019 compared to 2018. Excluding the impact of foreign currency, revenue decreased reflecting the impact of changes in legislation related to gambling advertisements in the U.K. and Italy that occurred in the third quarter of 2019, as well as overall market weakness.

Sky Segment – Operating Costs and Expenses

Programming and Production Costs

Expenses 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.

Expenses were flat in 2019 compared to 2018. Excluding the impact of foreign currency, expenses increased primarily due to an increase in the cost of sports programming contracts.

Direct Network Costs

Expenses 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 Sky's network. In addition, it includes the cost of mobile handsets sold to customers.

Expenses increased in 2019 compared to 2018. Excluding the impact of foreign currency, expenses increased primarily due to increases in costs associated with Sky's wireless phone service as a result of increases in the number of customers receiving the service.

Other Expenses

Expenses include costs related to marketing, fees paid to third-party channels where Sky represents the advertising sales efforts, subscriber management, supply chain, transmission, technology, fixed networks and general administrative costs.

Expenses decreased in 2019 compared to 2018. Excluding the impact of foreign currency, expenses decreased primarily due to contract termination costs and costs related to a settlement in the prior year, and a favorable settlement in the current year.

We anticipate that expenses will increase in 2020 compared to 2019 due to the launch of high-speed internet service in Italy, as well as continued acceleration of Sky Q across all of our markets.

Corporate and Other Results of Operations

Year ended December 31 (in millions)	2019	2018	2017	% Change 2018 to 2019	% Change 2017 to 2018
Revenue	\$ 333	\$ 513	\$ 864	(35.0)%	(40.7)%
Operating costs and expenses	1,393	1,772	1,973	(21.3)	(10.2)
Adjustment for legal settlement	—	(125)	(250)	NM	NM
Adjustment for Sky transaction-related costs	(180)	(355)	—	NM	NM
Adjusted EBITDA	\$ (880)	\$ (779)	\$ (859)	(12.9)%	9.3%

Percentage changes that are considered not meaningful are denoted with NM.

Corporate and Other – Revenue

Revenue primarily relates to Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania.

Revenue decreased in 2019 primarily due to the sale of a controlling interest in our arena management-related businesses in the second quarter of 2018.

Corporate and Other – Operating Costs and Expenses

Expenses primarily include overhead, personnel costs, the costs of other business initiatives, such as the development of Peacock and operating costs and expenses associated with Comcast Spectacor.

Expenses decreased in 2019 primarily due to costs directly related to the Sky transaction and a legal settlement in the prior year, as well as the absence of costs associated with our arena management-related businesses. The decrease was partially offset by an increase in other costs associated with the Sky transaction, including expenses resulting from the replacement of share-based compensation awards and costs related to integration activities, as well as start up costs associated with Peacock. Corporate and Other Adjusted EBITDA excludes Sky transaction-related costs and costs associated with a legal settlement.

We plan to launch Peacock in 2020 and expect to incur significant costs to develop and scale our direct-to-consumer streaming service.

Non-GAAP Financial Measures

Consolidated Adjusted EBITDA

Adjusted EBITDA is a non-GAAP financial measure and is the primary basis used to measure the operational strength and performance of our businesses as well as to assist in the evaluation of underlying trends in our businesses. 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 Adjusted EBITDA may not be directly comparable to similar measures used by other companies.

We define Adjusted EBITDA as net income attributable to Comcast Corporation before net income (loss) attributable to noncontrolling interests and redeemable subsidiary preferred stock, 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.

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)	2019	2018	2017
Net income attributable to Comcast Corporation	\$ 13,057	\$ 11,731	\$ 22,735
Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	266	131	187
Income tax (benefit) expense	3,673	3,380	(7,569)
Investment and other (income) loss, net	(438)	225	(421)
Interest expense	4,567	3,542	3,086
Depreciation	8,663	8,281	7,914
Amortization	4,290	2,736	2,216
Other operating gains	—	(341)	(442)
Adjustment for Sky transaction-related costs	180	355	—
Adjustment for legal settlement	—	125	250
Adjusted EBITDA	\$ 34,258	\$ 30,165	\$ 27,956

Constant Currency

Constant currency and constant currency growth rates are non-GAAP financial measures that present our results of operations excluding the estimated effects of foreign currency exchange rate fluctuations. Certain of our businesses, including Sky, have operations outside the United States that are conducted in local currencies. As a result, the comparability of the financial results reported in U.S. dollars is affected by changes in foreign currency exchange rates. In our Sky segment, we use constant currency and constant currency growth rates to evaluate the underlying performance of the business, and we believe it is helpful for investors to present operating results on a comparable basis year over year to evaluate its underlying performance.

Constant currency and constant currency growth rates are calculated by comparing the prior year results adjusted to reflect the average exchange rates from the current year rather than the actual exchange rates that were in effect during the respective prior year.

Reconciliation of Sky Constant Currency Growth Rates

	2019	2018	% Change 2018 to 2019
Year ended December 31 (in millions, except per customer data)	Actual	Constant Currency	Constant Currency Growth
Revenue			
Direct-to-consumer	\$ 15,538	\$ 15,326	1.4 %
Content	1,432	1,196	19.7
Advertising	2,249	2,376	(5.4)
Total revenue	19,219	18,898	1.7
Operating costs and expenses			
Programming and production	8,865	8,406	5.4
Direct network costs	1,746	1,555	12.3
Other	5,509	6,173	(10.8)
Total operating costs and expenses	16,120	16,134	(0.1)
Adjusted EBITDA	\$ 3,099	\$ 2,764	12.2 %
Average monthly direct-to-consumer revenue per customer relationship	\$ 54.41	\$ 54.98	(1.0)%

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 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 our revolving credit facilities. As of December 31, 2019, amounts available under our revolving credit facilities, net of amounts outstanding under our commercial paper programs and outstanding letters of credit and bank guarantees, totaled \$9.2 billion.

Comcast, 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, 2019, 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 Universal Studios Japan term loans contain certain financial covenants. As of December 31, 2019, Universal Studios Japan was in compliance with all of these covenants.

Operating Activities

Components of Net Cash Provided by Operating Activities

Year ended December 31 (in millions)	2019	2018	2017
Operating income	\$ 21,125	\$ 19,009	\$ 18,018
Depreciation, amortization and other operating gains	12,953	10,676	9,688
Noncash share-based compensation	1,021	826	751
Changes in operating assets and liabilities	(2,335)	(1,313)	(546)
Payments of interest	(4,254)	(2,897)	(2,820)
Payments of income taxes	(3,231)	(2,355)	(4,057)
Proceeds from investments and other	418	351	227
Net cash provided by operating activities	\$ 25,697	\$ 24,297	\$ 21,261

The variance in changes in operating assets and liabilities in 2019 compared to 2018 was primarily related to the timing of film and television costs and our broadcast of the 2018 Super Bowl at NBCUniversal, partially offset by the timing of collections on receivables and our broadcast of the 2018 PyeongChang Olympics.

The increase in interest payments in 2019 was 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 increase in income tax payments in 2019 was primarily due to reduced tax payments in 2018 as a result of federal income tax overpayments in 2017.

Investing Activities

Net cash used in investing activities in 2019 consisted primarily of capital expenditures, purchases of investments, cash paid for intangible assets and the construction of Universal Beijing Resort. 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 purchase of investments.

Capital Expenditures

Capital expenditures increased in 2019 primarily due to the acquisition of Sky in the fourth quarter of 2018, with a full year of capital expenditures for 2019. Sky capital expenditures totaled \$768 million in 2019, reflecting the continued deployment of Sky Q and high-speed internet services.

Capital expenditures in our NBCUniversal segments increased 19.7% to \$2.1 billion in 2019 primarily due to an increase in spending at our Universal theme parks, including construction of an additional theme park in Orlando, Florida.

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. Cable Communications' capital expenditures decreased 10.5% in 2019 compared to

2018 primarily due to lower spending on scalable infrastructure and customer premise equipment. The table below summarizes the capital expenditures we incurred in our Cable Communications segment in 2019, 2018 and 2017.

Year ended December 31 (in millions)	2019	2018	2017
Customer premise equipment	\$ 2,659	\$ 2,917	\$ 3,337
Scalable infrastructure	2,000	2,555	2,369
Line extensions	1,392	1,484	1,367
Support capital	858	767	905
Total	\$ 6,909	\$ 7,723	\$ 7,978

We expect our capital expenditures for 2020 will be focused on the 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, including the additional theme park being constructed in Orlando, Florida. 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 2019, cash paid for intangible assets increased primarily due to the acquisition of Sky in the fourth quarter of 2018, with a full year of expense included in our results of operations for 2019, and to a lesser extent, expenditures for software in our Cable Communications segment. Our Sky segment's cash paid for intangible assets totaled \$707 million in 2019 and consisted primarily of expenditures for software development related to Sky Q and high-speed internet services. In 2018, cash paid for intangible assets consisted primarily of expenditures for software in our Cable Communication segment, and to a lesser extent, expenditures for software in our NBCUniversal segments.

Acquisitions and Construction of Real Estate Properties

Acquisitions and construction of real estate properties primarily included the construction of the Comcast Technology Center in Philadelphia, Pennsylvania, which was completed in 2019.

Construction of Universal Beijing Resort

Construction of Universal Beijing Resort includes costs related to the construction of the Universal theme park and resort in Beijing, China. See Note 8 to Comcast's consolidated financial statements and Note 7 to NBCUniversal's consolidated financial statements for further information on Universal Beijing Resort.

Purchases of Investments

Purchases of investments in 2019 and 2018 were primarily related to capital contributions to Hulu and Atairios.

Other

Other investing activities in 2019 were primarily related to distributions received from equity method investments. 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.

Financing Activities

Net cash used in financing activities in 2019 consisted primarily of repayments of debt, dividend payments and repurchases of common stock under our employee plans, partially offset by proceeds from issuance of senior notes and a collateralized obligation. Net cash provided by financing activities in 2018 consisted primarily of proceeds from borrowings, including the financing of the Sky acquisition, partially offset by repayments of debt, repurchases of common stock under our share repurchase program and employee plans, and dividend payments.

In 2019, we made debt repayments of \$14.4 billion, including \$6.1 billion of optional repayments of term loans due 2021 to 2023, \$5.2 billion of senior notes due 2020 and \$3.0 billion of senior notes due 2019.

In August 2019, we received proceeds of approximately \$5.2 billion under a term loan facility due 2024 which is presented as a collateralized obligation, the principal amount of which is fully secured by the minimum guaranteed proceeds under the put/call provisions related to our investment in Hulu. In November 2019, we issued \$1.6 billion of senior notes due 2030, \$1.35 billion of senior notes due 2039 and \$1.8 billion of senior notes due 2050. The proceeds from the collateralized obligation and the senior notes were used to repay debt. In 2019, we made borrowings of \$728 million under the Universal Beijing Resort term loan.

In 2019, we made net repayments of \$673 million under our commercial paper programs and made net repayments of \$615 million under Sky's £1 billion revolving credit facility, which was terminated in February 2019.

In December 2019, we announced our election to exercise our option to redeem at par \$1.49 billion of senior notes due 2046 in February 2020.

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.

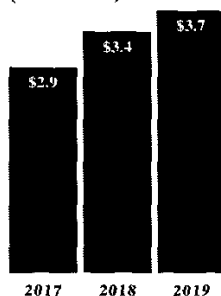
Share Repurchases and Dividends

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, 2019, \$2 billion remained under this authorization. Under the authorization, we may repurchase shares in the open market or in private transactions. We have paused our share repurchase program in order to accelerate the reduction of indebtedness we incurred in connection with the acquisition of Sky, and no common shares were repurchased in 2019 under the authorization. Under our share repurchase program authorization, we repurchased a total of 140 million shares of Class A common stock for \$5.0 billion in 2018, and 131 million shares of Class A Common stock for \$5.0 billion in 2017.

Our Board of Directors declared quarterly dividends totaling \$3.9 billion in 2019. We paid dividends of \$3.7 billion in 2019. In January 2020, our Board of Directors approved a 10% increase in our dividend to \$0.92 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 dividends paid in 2019, 2018 and 2017. In addition, we paid \$504 million and \$320 million in 2019 and 2018, respectively, related to employee taxes associated with the administration of our share-based compensation plans.

Dividends Paid
(in billions)



Contractual Obligations

As of December 31, 2019 (in millions)	Payment Due by Period				
	Total	Year 1	Years 2-3	Years 4-5	More than 5
Debt obligations ^(a)	\$ 103,100	\$ 4,274	\$ 14,535	\$ 14,362	\$ 69,929
Collateralized obligation ^{(a)(b)}	5,166	—	—	5,166	—
Capital lease obligations	790	181	171	61	377
Operating lease obligations	5,626	877	1,460	1,046	2,243
Purchase obligations ^(c)	66,559	23,902	17,571	9,200	15,886
Other long-term liabilities reflected on the balance sheet ^(d)	6,493	2,011	1,353	1,044	2,085
Total^{(e)(f)}	\$ 187,734	\$ 31,245	\$ 35,090	\$ 30,879	\$ 90,520

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

(a) Excludes interest payments.

(b) Collateralized obligation relates to a \$5.2 billion term loan facility, the principal amount of which is fully secured by the minimum guaranteed proceeds under the put/call provisions related to our investment in Hulu. See Note 10 to Comcast's consolidated financial statements.

(c) 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 Cable Communications and Sky 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 NBCUniversal and Sky include commitments to acquire film and television programming, and 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.

(d) Other long-term liabilities reflected on the balance sheet consist primarily of mandatorily redeemable 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, 2019, the value of the contractual obligation was \$1.8 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. Our total recorded liability of \$2.7 billion related to 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.

(e) Our contractual obligations do not include our commitment to invest up to \$5 billion at any one time as an investor in Atairis due to our inability to estimate the timing of this funding. As of December 31, 2019, our remaining commitment is \$2.2 billion based on the capital calls received as of that date (see Note 10 to Comcast's consolidated financial statements).

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

(in millions)	
Liabilities recorded on the balance sheet	\$ 124,760
Commitments not recorded on the balance sheet	62,974
Total	\$ 187,734

Off-Balance Sheet Arrangements

As of December 31, 2019, 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 leases.

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 goodwill and cable franchise rights, the accounting for film and television costs, and the valuation of acquisition-related assets and liabilities are critical in the preparation of our consolidated financial statements. 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.

Valuation and Impairment Testing of Goodwill and Cable Franchise Rights

We assess the recoverability of our goodwill and indefinite-lived intangible assets, including cable franchise rights, annually, or more frequently whenever events or substantive changes in circumstances indicate that the assets might be impaired. 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 or 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.

Goodwill

Goodwill results from business combinations and represents the excess amount of the consideration paid over the identifiable assets and liabilities recorded in the acquisition. We test goodwill for impairment at the reporting unit level and have concluded that our reporting units are generally the same as our reportable segments. We evaluate the determination of our reporting units periodically or whenever events or substantive changes in circumstances occur. When performing a quantitative assessment, we estimate the fair value of our reporting units primarily based on a discounted cash flow analysis that involves significant judgment, including market participant estimates of future cash flows expected to be generated by the business and the selection of discount rates. When analyzing the fair values indicated under discounted cash flow models, we also consider multiples of Adjusted EBITDA generated by the underlying assets, current market transactions and profitability information.

We performed a qualitative assessment for our reporting units in 2019. This assessment considered changes in our projected future cash flows and discount rates, recent market transactions and overall macroeconomic conditions. Based on this assessment, we concluded that it was more likely than not that the estimated fair values of our reporting units were higher than their carrying values and that the performance of a quantitative impairment test was not required. Assets and liabilities resulting from a business combination are initially recorded at fair value and the risk of goodwill impairment is reduced as the value of the businesses in a reporting unit increases and as the carrying value of the reporting unit decreases due to the amortization of the historical cost of acquired long-lived assets over time. Goodwill in our Cable Communications segment and our NBCUniversal segments has resulted from the combination of legacy businesses and newly acquired businesses and as a result, the fair values of the reporting units are significantly in excess of the respective carrying values. The goodwill in our Sky segment resulted from our acquisition of Sky in the fourth quarter of 2018. Given this was a recent transaction, the fair value is in close proximity to the carrying value of the Sky reporting unit.

Changes in market conditions, laws and regulations, and key assumptions made in future quantitative assessments, including expected cash flows, competitive factors and discount rates, could negatively impact the results of future impairment testing and could result in the recognition of an impairment charge.

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.

For purposes 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.

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, including the estimate of future cash flows and the selection of discount rates. 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 2019, we performed a qualitative assessment of our cable franchise rights. At the time of our previous quantitative assessment in 2018, 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. We also considered various factors that would affect the estimated fair values of our cable franchise rights in our qualitative assessment, including changes in our projected future cash flows associated with our Cable Communications segment; market transactions and macroeconomic conditions; discount rates; and changes in our market capitalization. Based on this assessment, we concluded that it was more likely than not that the estimated fair values of our cable franchise rights were higher than the carrying values and that the performance of a quantitative impairment test was not required.

Changes in market conditions, laws and regulations and key assumptions made in future quantitative assessments, including expected cash flows, competitive factors and discount rates, could negatively impact the results of future impairment testing and 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 rights for content that we license but do not own 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 recognize the costs of multiyear, live-event sports programming rights as the rights are utilized over the contract term based on estimated relative value. Estimated relative value is generally based on the ratio of the current period revenue to the estimated ultimate revenue or the terms of the contract. Advance payments for rights to multiyear, live-event sports programming are included in programming rights.

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 businesses 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 assets acquired and liabilities assumed, 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.

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 discounted cash flow analysis that involves significant judgment, including the estimate of future cash flows and the selection of discount rates. This measure of fair value also 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.

Property and Equipment

Property and equipment includes customer premise equipment as well as network assets, real estate, and other machinery and equipment.

Property and equipment was valued using the reproduction and replacement cost approaches as well as a cost approach for real estate. The reproduction and replacement cost approaches measure the value of an asset by estimating the cost to acquire or construct comparable assets and adjust for the age and condition of the asset. The cost approach measures the value of real estate through an evaluation of recent, comparable transactions or current listings of available properties.

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 primarily include cross currency swaps, represent an integral part of our interest rate risk management program. These cross currency swaps effectively change our current fixed interest rates to different fixed interest rates.

The effect of our interest rate derivative financial instruments to our consolidated interest expense was a decrease of \$49 million in 2019, an increase of \$2 million in 2018, and a decrease of \$5 million in 2017. 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 consolidated interest expense in the future.

The table below summarizes as of December 31, 2019 by contractual year of maturity the principal amount of our debt, effective rates, and fair values subject to interest rate risk maintained by us.

(in millions)	2020	2021	2022	2023	2024	Thereafter	Total	Estimated Fair Value as of December 31, 2019
Debt								
Fixed rate debt	\$ 2,267	\$ 5,801	\$ 3,735	\$ 3,839	\$ 6,226	\$ 69,020	\$ 90,888	\$ 102,819
Average interest rate	4.4%	3.2%	4.9%	2.6%	3.3%	4.3%	4.1%	
Variable rate debt	\$ 2,188	\$ 3,324	\$ 1,847	\$ 3,824	\$ 533	\$ 1,286	\$ 13,002	\$ 13,023
Average interest rate	1.4%	1.9%	0.8%	1.8%	2.7%	4.4%	1.9%	

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, 2019, plus the applicable borrowing margin.

Additionally, we have a \$5.2 billion variable rate term loan presented separately as a collateralized obligation that will mature in March 2024. We entered into a series of variable-to-fixed rate interest rate swaps on \$3.6 billion of this term loan with average pay rate and average receive rate related to these interest rate swaps of 1.23% and 1.80% as of December 31, 2019 and 2018, respectively. As of December 31, 2019, the estimated fair value of the term loan was \$5.2 billion and the estimated fair value of the related interest rate swaps was a net asset of \$34 million.

See Notes 1, 7 and 10 to Comcast's and Notes 1 and 9 to NBCUniversal's consolidated financial statements for additional information on our derivative instruments and hedging activities.

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 30 months. As of December 31, 2019 and 2018, we had foreign exchange contracts on transactions other than debt with a total notional value of \$6.3 billion and \$5.8 billion, respectively, including contracts at NBCUniversal of \$1.4 billion and \$1.2 billion, respectively. As of December 31, 2019 and 2018, the aggregate estimated fair value of these foreign exchange contracts was not material.

We use cross-currency swaps as cash flow hedges 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, which hedge currency exchange risks associated with foreign currency denominated cash flows such as interest and principal debt repayments. As of both December 31, 2019 and 2018, we had cross-currency swaps designated as cash flow hedges on \$3.7 billion of our foreign currency denominated debt. As of December 31, 2019 and 2018, the aggregate estimated fair values of cross-currency swaps designated as cash flow hedges were a net asset of \$373 million and \$399 million, respectively.

We are also exposed to foreign exchange risk on the consolidation of our foreign operations. We have foreign currency denominated debt and use cross-currency swaps to hedge our net investments in certain of these subsidiaries. Transaction gains and losses resulting from currency movements on debt and changes in fair value of cross-currency swaps designated as net investment hedges are recorded within the currency translation adjustments component of accumulated other comprehensive income (loss). The aggregate amount of our net investment in foreign subsidiaries that have been hedged using cross-currency swaps and foreign currency denominated debt was \$14.0 billion and \$15.6 billion, as of December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, the aggregate estimated fair value of the cross-currency swaps was a net liability of \$373 million and \$587 million, respectively. As of December 31, 2019 and 2018, there were pre-tax cumulative translation gains of \$339 million and pre-tax cumulative translation losses of \$4 million, respectively, related to these net investment hedges recorded in accumulated other comprehensive income (loss).

We have analyzed our foreign currency exposure related to our foreign operations as of December 31, 2019, 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 2019 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, 2019 and 2018, 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 Supplementary Data on page 123.

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, 2019. 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

Brian L. Roberts

Chairman and
Chief Executive Officer

/s/ MICHAEL J. CAVANAGH

Michael J. Cavanagh

Senior Executive Vice President and
Chief Financial Officer

/s/ DANIEL C. MURDOCK

Daniel C. Murdock

Senior Vice President, Chief
Accounting Officer and Controller

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders 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, 2019 and 2018, 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, 2019, 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, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Acquisition of Sky Limited—Refer to Note 8 to the financial statements

Critical Audit Matter Description

The Company obtained a controlling interest in Sky Limited (“Sky”) for \$39.4 billion on October 9, 2018 and finalized the purchase price allocation in 2019. The Company accounted for the acquisition under the acquisition method of accounting for business combinations. Accordingly,

Report of Independent Registered Public Accounting Firm

the purchase price was allocated to the assets acquired and liabilities assumed based on their respective fair values, including identified intangible assets of \$19.5 billion and resulting goodwill of \$31.3 billion.

The assets acquired and liabilities assumed included, among others, certain customer relationships, trade names, and contractual obligations. The fair value determination of these assets and liabilities required management to make significant estimates and assumptions, including future cash flows and discount rates as well as royalty rates and current market rates for trade names and contractual obligations, respectively. Given the judgments necessary to estimate the fair value determination, auditing these estimates involved especially subjective judgment and involved the use of fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the significant estimates and assumptions used in the valuation of customer relationships, trade names, and contractual obligations included the following, among others:

- We tested the effectiveness of management's controls over the valuation of assets and liabilities, including management's controls over forecasts of future cash flows, assumptions of market rates for contractual obligations, and selection of the discount rates and royalty rates.
- We assessed the reasonableness of management's forecasts of future cash flows by comparing the projections to historical results and certain peer companies.
- We assessed the reasonableness of management's assumptions of current market rates for contractual obligations by comparing the rates to historical contractual rates and industry data for similar contracts.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology, discount rates, and royalty rates by:
 - Testing the source information underlying the determination of the discount rates and royalty rates and testing the mathematical accuracy of the calculations.
 - Developing a range of independent estimates for the discount rates and comparing those to the discount rates selected by management.

Film and Television Costs - Refer to Note 4 to the financial statements

Critical Audit Matter Description

The Company amortizes capitalized film and television production costs using the individual film forecast computation method, which amortizes such costs using the ratio of current period revenue to the total remaining revenue forecasted to be realized, also known as "ultimate revenue." In addition, the Company recognizes the costs of multiyear, live-event sports programming rights as the rights are utilized over the contractual term based on estimated relative value. Estimated relative value is generally based on the ratio of current period revenue to the estimated ultimate revenue or the terms of the contract. The estimates of ultimate revenue have a significant impact on the rate at which capitalized costs are amortized.

The determination of ultimate revenue for capitalized film and television costs requires the Company to make significant estimates of future revenue based on anticipated release patterns, public acceptance, and historical results for similar productions. The determination of ultimate revenue for multiyear, live-event sports programming rights requires the Company to make significant estimates of future revenue based on historical and expected trends in the advertising market as well as the number of subscribers receiving or viewing the sports programming. Given the judgments necessary to estimate ultimate revenue, auditing these estimates involved especially subjective judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to forecasts of ultimate revenue for individual film or television productions and for sports programming rights included the following, among others:

- We tested the effectiveness of management's controls over its amortization of film and television costs and sports programming rights, including controls over forecasts of ultimate revenue.
- We evaluated the historical accuracy of management's forecast of future revenues by comparing actual results to management's historical estimates of ultimate revenue.
- For film and television productions, we tested management's selection of inputs and assumptions, including considering the historical performance of similar titles, factors unique to the individual film or television production, and third-party projections.

/s/ Deloitte & Touche LLP
Philadelphia, Pennsylvania
January 30, 2020

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)	2019	2018	2017
Revenue	\$ 108,942	\$ 94,507	\$ 85,029
Costs and Expenses:			
Programming and production	34,440	29,692	25,355
Other operating and administrative	32,807	28,094	25,449
Advertising, marketing and promotion	7,617	7,036	6,519
Depreciation	8,663	8,281	7,914
Amortization	4,290	2,736	2,216
Other operating gains	—	(341)	(442)
Total costs and expenses	87,817	75,498	67,011
Operating income	21,125	19,009	18,018
Interest expense	(4,567)	(3,542)	(3,086)
Investment and other income (loss), net	438	(225)	421
Income before income taxes	16,996	15,242	15,353
Income tax (expense) benefit	(3,673)	(3,380)	7,569
Net income	13,323	11,862	22,922
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	266	131	187
Net income attributable to Comcast Corporation	\$ 13,057	\$ 11,731	\$ 22,735
Basic earnings per common share attributable to Comcast Corporation shareholders	\$ 2.87	\$ 2.56	\$ 4.83
Diluted earnings per common share attributable to Comcast Corporation shareholders	\$ 2.83	\$ 2.53	\$ 4.75

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Comprehensive Income

Year ended December 31 (in millions)	2019	2018	2017
Net income	\$ 13,323	\$ 11,862	\$ 22,922
Unrealized gains (losses) on marketable securities, net of deferred taxes of \$—, \$(1) and \$25	3	1	(42)
Deferred gains (losses) on cash flow hedges, net of deferred taxes of \$(4), \$(3) and \$(35)	19	50	60
Amounts reclassified to net income:			
Realized (gains) losses on marketable securities, net of deferred taxes of \$—, \$— and \$1	—	—	(1)
Realized (gains) losses on cash flow hedges, net of deferred taxes of \$(10), \$(4) and \$22	65	(6)	(37)
Employee benefit obligations, net of deferred taxes of \$16, \$(2) and \$(24)	(60)	7	41
Currency translation adjustments, net of deferred taxes of \$(66), \$9 and \$(40)	1,375	(916)	147
Comprehensive income	14,725	10,998	23,090
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	266	131	187
Less: Other comprehensive income (loss) attributable to noncontrolling interests	(13)	(41)	81
Comprehensive income attributable to Comcast Corporation	\$ 14,472	\$ 10,908	\$ 22,822

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Cash Flows

Year ended December 31 (in millions)	2019	2018	2017
Operating Activities			
Net income	\$ 13,323	\$ 11,862	\$ 22,922
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and other operating gains	12,953	10,676	9,688
Share-based compensation	1,021	826	751
Noncash interest expense (income), net	417	364	272
Net (gain) loss on investment activity and other	(20)	576	(194)
Deferred income taxes	563	290	(10,646)
Changes in operating assets and liabilities, net of effects of acquisitions and divestitures:			
Current and noncurrent receivables, net	(57)	(802)	(869)
Film and television costs, net	(929)	(395)	(197)
Accounts payable and accrued expenses related to trade creditors	(347)	(394)	173
Other operating assets and liabilities	(1,227)	1,294	(639)
Net cash provided by operating activities	25,697	24,297	21,261
Investing Activities			
Capital expenditures	(9,953)	(9,774)	(9,550)
Cash paid for intangible assets	(2,475)	(1,935)	(1,605)
Acquisitions and construction of real estate properties	(54)	(143)	(418)
Construction of Universal Beijing Resort	(1,116)	(460)	(71)
Acquisitions, net of cash acquired	(370)	(38,219)	(532)
Proceeds from sales of businesses and investments	886	141	150
Purchases of investments	(1,899)	(1,257)	(2,292)
Other	140	793	785
Net cash provided by (used in) investing activities	(14,841)	(50,854)	(13,533)
Financing Activities			
Proceeds from (repayments of) short-term borrowings, net	(1,288)	379	(1,905)
Proceeds from borrowings	5,479	44,781	11,466
Proceeds from collateralized obligation	5,175	—	—
Repurchases and repayments of debt	(14,354)	(8,798)	(6,364)
Repurchases of common stock under repurchase program and employee plans	(504)	(5,320)	(5,435)
Dividends paid	(3,735)	(3,352)	(2,883)
Purchase of Universal Studios Japan noncontrolling interests	—	—	(2,299)
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	(311)	(277)	(252)
Other	357	(273)	100
Net cash provided by (used in) financing activities	(9,181)	27,140	(7,572)
Impact of foreign currency on cash, cash equivalents and restricted cash	5	(245)	—
Increase (decrease) in cash, cash equivalents and restricted cash	1,680	338	156
Cash, cash equivalents and restricted cash, beginning of year	3,909	3,571	3,415
Cash, cash equivalents and restricted cash, end of year	\$ 5,589	\$ 3,909	\$ 3,571

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Balance Sheet

December 31 (in millions, except share data)	2019	2018
Assets		
Current Assets:		
Cash and cash equivalents	\$ 5,500	\$ 3,814
Receivables, net	11,292	11,104
Programming rights	3,877	3,746
Other current assets	4,723	3,184
Total current assets	25,392	21,848
Film and television costs	8,933	7,837
Investments	6,989	7,883
Investment securing collateralized obligation	694	—
Property and equipment, net	48,322	44,437
Goodwill	68,725	66,154
Franchise rights	59,365	59,365
Other intangible assets, net	36,128	38,358
Other noncurrent assets, net	8,866	5,802
Total assets	\$ 263,414	\$ 251,684
Liabilities and Equity		
Current Liabilities:		
Accounts payable and accrued expenses related to trade creditors	\$ 10,826	\$ 8,494
Accrued participations and residuals	1,730	1,808
Deferred revenue	2,768	2,182
Accrued expenses and other current liabilities	10,516	10,721
Current portion of long-term debt	4,452	4,398
Total current liabilities	30,292	27,603
Long-term debt, less current portion	97,765	107,345
Collateralized obligation	5,166	—
Deferred income taxes	28,180	27,589
Other noncurrent liabilities	16,765	15,329
Commitments and contingencies (Note 17)		
Redeemable noncontrolling interests and redeemable subsidiary preferred stock	1,372	1,316
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, 5,416,381,298 and 5,389,309,175; outstanding, 4,543,590,270 and 4,516,518,147	54	54
Class B common stock, \$0.01 par value—authorized, 75,000,000 shares; issued and outstanding, 9,444,375	—	—
Additional paid-in capital	38,447	37,461
Retained earnings	50,695	41,983
Treasury stock, 872,791,028 Class A common shares	(7,517)	(7,517)
Accumulated other comprehensive income (loss)	1,047	(368)
Total Comcast Corporation shareholders' equity	82,726	71,613
Noncontrolling interests	1,148	889
Total equity	83,874	72,502
Total liabilities and equity	\$ 263,414	\$ 251,684

See accompanying notes to consolidated financial statements.

Comcast Corporation
Consolidated Statement of Changes in Equity

(in millions, except per share data)	2019	2018	2017
Redeemable Noncontrolling Interests and Redeemable Subsidiary Preferred Stock			
Balance, beginning of year	\$ 1,316	\$ 1,357	\$ 1,446
Contributions from (distributions to) noncontrolling interests, net	(62)	(56)	(39)
Other	(38)	(43)	(123)
Net income (loss)	156	58	73
Balance, end of year	\$ 1,372	\$ 1,316	\$ 1,357
Class A common stock			
Balance, beginning of year	\$ 54	\$ 55	\$ 56
Repurchases of common stock under repurchase program and employee plans	—	(1)	(1)
Balance, end of year	\$ 54	\$ 54	\$ 55
Class B common stock			
Balance, beginning and end of year	\$ —	\$ —	\$ —
Additional Paid-In Capital			
Balance, beginning of year	\$ 37,461	\$ 37,497	\$ 38,230
Stock compensation plans	783	607	554
Repurchases of common stock under repurchase program and employee plans	(34)	(920)	(832)
Employee stock purchase plans	222	214	190
Purchase of Universal Studios Japan noncontrolling interests	—	—	(696)
Other	15	63	51
Balance, end of year	\$ 38,447	\$ 37,461	\$ 37,497
Retained Earnings			
Balance, beginning of year	\$ 41,983	\$ 38,202	\$ 23,065
Cumulative effects of adoption of accounting standards	—	(43)	—
Repurchases of common stock under repurchase program and employee plans	(485)	(4,408)	(4,623)
Dividends declared	(3,860)	(3,499)	(2,975)
Net income (loss)	13,057	11,731	22,735
Balance, end of year	\$ 50,695	\$ 41,983	\$ 38,202
Treasury Stock at Cost			
Balance, beginning and end of year	\$ (7,517)	\$ (7,517)	\$ (7,517)
Accumulated Other Comprehensive Income (Loss)			
Balance, beginning of year	\$ (368)	\$ 379	\$ 98
Cumulative effects of adoption of accounting standards	—	76	—
Other comprehensive income (loss)	1,415	(823)	87
Purchase of Universal Studios Japan noncontrolling interests	—	—	194
Balance, end of year	\$ 1,047	\$ (368)	\$ 379
Noncontrolling Interests			
Balance, beginning of year	\$ 889	\$ 843	\$ 2,231
Other comprehensive income (loss)	(13)	(41)	81
Contributions from (distributions to) noncontrolling interests, net	176	294	(108)
Purchase of Universal Studios Japan noncontrolling interests	—	—	(1,736)
Other	(14)	(280)	261
Net income (loss)	110	73	114
Balance, end of year	\$ 1,148	\$ 889	\$ 843
Total equity	\$ 83,874	\$ 72,502	\$ 69,459
Cash dividends declared per common share	\$ 0.84	\$ 0.76	\$ 0.63

See accompanying notes to consolidated financial statements.

Comcast Corporation
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 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 2019. 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 goodwill and 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. The collateralized obligation related to our investment in Hulu is discussed in Note 10 and our other long-term debt is discussed in Note 7. 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.

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. We designate certain derivative instruments as cash flow hedges of forecasted foreign currency denominated transactions, including cash flows associated with non-functional currency debt and non-functional currency revenues and expense. Changes in the fair value of derivative instruments accounted for as cash flow hedges are recorded as a component of accumulated other comprehensive income (loss) until the hedged item affects earnings. For derivatives not designated as cash flow hedges, changes in fair value are recognized in earnings.

Comcast Corporation

Refer to Note 7 for further information on derivative instruments related to debt. The impact of our remaining derivative financial instruments was not material to our consolidated financial statements 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. 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 instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets
- Level 3: Values are determined using 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.

Note 2: Segment Information

Cable Communications is a leading provider of high-speed internet, video, voice, wireless, and security and automation services to residential customers in the United States under the Xfinity brand; we also provide these and other services to business customers and sell advertising. As of December 31, 2019, our cable systems had 31.5 million total customer relationships, including 29.1 million residential and 2.4 million business customer relationships, of which 28.6 million received our high-speed internet service, 21.3 million received our video service, 11.3 million received our voice service, and 1.4 million received our security and automation service. As of December 31, 2019, there were 2.1 million activated lines that received our wireless phone service.

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, we are developing a theme park in Beijing, China along with a consortium of Chinese state-owned companies, and an additional theme park in Orlando, Florida.

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. As of December 31, 2019, Sky had 24.0 million retail customer relationships.

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. Beginning in the first quarter of 2019, Comcast Cable's wireless phone service and certain other Cable-related business development initiatives are presented in the Cable Communications segment. Results were previously presented in Corporate and Other. Prior periods have been adjusted to reflect this presentation. 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.

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(in millions)	Revenue	Adjusted EBITDA ^(d)	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2019					
Cable Communications	\$ 58,082	\$ 23,266	\$ 7,994	\$ 6,909	\$ 1,426
NBCUniversal					
Cable Networks	11,513	4,444	735	41	17
Broadcast Television	10,261	1,730	157	161	15
Filmed Entertainment	6,493	833	79	21	22
Theme Parks	5,933	2,455	696	1,605	60
Headquarters and Other ^(a)	83	(689)	462	244	171
Eliminations ^(b)	(316)	(1)	—	—	—
NBCUniversal	33,967	8,772	2,129	2,072	285
Sky	19,219	3,099	2,699	768	707
Corporate and Other ^(c)	333	(880)	131	204	57
Eliminations ^(b)	(2,659)	1	—	—	—
Comcast Consolidated	\$ 108,942	\$ 34,258	\$ 12,953	\$ 9,953	\$ 2,475
(in millions)	Revenue	Adjusted EBITDA ^(d)	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2018					
Cable Communications	\$ 56,033	\$ 21,681	\$ 8,262	\$ 7,723	\$ 1,346
NBCUniversal					
Cable Networks ^(e)	11,773	4,428	738	42	23
Broadcast Television ^(e)	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 ^(a)	63	(680)	419	306	146
Eliminations ^{(b)(e)}	(349)	4	—	—	—
NBCUniversal	35,761	8,598	2,108	1,730	448
Sky	4,587	692	539	222	137
Corporate and Other ^(c)	513	(779)	108	99	4
Eliminations ^{(b)(e)}	(2,387)	(27)	—	—	—
Comcast Consolidated	\$ 94,507	\$ 30,165	\$ 11,017	\$ 9,774	\$ 1,935
(in millions)	Revenue	Adjusted EBITDA ^(d)	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2017					
Cable Communications	\$ 53,399	\$ 20,555	\$ 8,019	\$ 7,978	\$ 1,294
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 ^(a)	45	(741)	396	271	153
Eliminations ^(b)	(307)	(5)	—	—	—
NBCUniversal	32,836	8,218	2,041	1,502	295
Corporate and Other ^(c)	864	(859)	70	70	16
Eliminations ^(b)	(2,070)	42	—	—	—
Comcast Consolidated	\$ 85,029	\$ 27,956	\$ 10,130	\$ 9,550	\$ 1,605

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- (a) NBCUniversal Headquarters and Other activities include costs associated with overhead, allocations, personnel costs and headquarter initiatives.
- (b) Included in Eliminations are transactions that our segments enter into with one another. The most common types of transactions are the following:
- Cable Networks generates revenue by selling programming to Cable Communications, which represents a substantial majority of the revenue elimination amount
 - Broadcast Television generates revenue from the fees received under retransmission consent agreements with Cable Communications
 - Cable Communications generates revenue by selling advertising and by selling the use of satellite feeds to Cable Networks
 - Cable Networks and Broadcast Television generate revenue by selling advertising to Cable Communications
 - Filmed Entertainment and Broadcast Television generate revenue by licensing content to our Cable Networks; for segment reporting, this revenue is recognized as the programming rights asset for the licensed content is amortized based on third-party revenue
 - *Filmed Entertainment, Cable Networks and Broadcast Television generate revenue by licensing content to Sky; for segment reporting, this revenue is recognized as content is delivered and available for use by Sky*
- (c) Corporate and Other activities include costs associated with overhead and personnel, revenue and expenses associated with the operations of Comcast Spectacor, which owns the Philadelphia Flyers and the Wells Fargo Center arena in Philadelphia, Pennsylvania, and other business initiatives, such as the development of Peacock.
- (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 Comcast Corporation before net income (loss) attributable to noncontrolling interests and redeemable subsidiary preferred stock, 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)	2019	2018	2017
Adjusted EBITDA	\$ 34,258	\$ 30,165	\$ 27,956
Adjustment for legal settlement	—	(125)	(250)
Adjustment for Sky transaction-related costs	(180)	(355)	—
Depreciation	(8,663)	(8,281)	(7,914)
Amortization	(4,290)	(2,736)	(2,216)
Other operating gains	—	341	442
Interest expense	(4,567)	(3,542)	(3,086)
Investment and other income (loss), net	438	(225)	421
Income before income taxes	\$ 16,996	\$ 15,242	\$ 15,353

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

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Note 3: Revenue

Year ended December 31 (in millions)	2019	2018	2017
Residential:			
High-speed internet	\$ 18,752	\$ 17,144	\$ 15,681
Video	22,270	22,455	22,874
Voice	3,879	3,960	4,090
Wireless	1,167	890	329
Business services	7,795	7,129	6,437
Advertising	2,465	2,795	2,450
Other	1,754	1,660	1,538
Total Cable Communications ^{(a)(b)}	58,082	56,033	53,399
Distribution	6,790	6,826	6,081
Advertising	3,478	3,587	3,359
Content licensing and other	1,245	1,360	1,057
Total Cable Networks	11,513	11,773	10,497
Advertising	5,712	7,010	5,654
Content licensing	2,157	2,182	2,114
Distribution and other	2,392	2,247	1,795
Total Broadcast Television	10,261	11,439	9,563
Theatrical	1,469	2,111	2,192
Content licensing	3,045	2,899	2,956
Home entertainment	957	1,048	1,287
Other	1,022	1,094	1,160
Total Filmed Entertainment	6,493	7,152	7,595
Total Theme Parks	5,933	5,683	5,443
Headquarters and Other	83	63	45
Eliminations ^(c)	(316)	(349)	(307)
Total NBCUniversal	33,967	35,761	32,836
Direct-to-consumer	15,538	3,632	—
Content	1,432	304	—
Advertising	2,249	651	—
Total Sky	19,219	4,587	—
Corporate and Other ^(b)	333	513	864
Eliminations ^(c)	(2,659)	(2,387)	(2,070)
Total revenue	\$ 108,942	\$ 94,507	\$ 85,029

(a) For 2019, 2018 and 2017, 2.6%, 2.6% and 2.8%, respectively, of Cable Communications segment revenue was derived from franchise and other regulatory fees.

(b) Comcast Cable's wireless phone service is now presented in the Cable Communications segment. Results were previously presented in Corporate and Other.

(c) 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. The table below summarizes revenue by geographic location.

Year ended December 31 (in millions)	2019	2018	2017
United States	\$ 82,952	\$ 82,233	\$ 77,246
Europe	21,553	7,721	3,190
Other	4,437	4,553	4,593
Total revenue	\$ 108,942	\$ 94,507	\$ 85,029

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

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Cable Communications Segment

Residential

Revenue is generated from subscribers to our high-speed internet, video, voice, wireless and security and automation services, which we market individually and as bundled services at a discounted rate in the United States. Revenue from 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 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 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 customers are subject to contracts for their services, which are typically 1 to 2 years in length, based on our evaluation of the terms of these contracts, we recognize revenue for these services on a basis that is consistent with our customers that are not subject to contracts. Our 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 services. We recognize revenue from the sale of wireless handsets at the point of sale. Sales commissions are expensed as incurred, as the related period of benefit is less than a year.

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

Business Services

Revenue is generated from subscribers to a variety of our products and services which are offered to businesses. Our service offerings for small business locations primarily include high-speed internet services, as well as voice and video services, that are similar to those provided to residential customers, as well as cloud-based cybersecurity services, wireless backup connectivity, advanced Wi-Fi solutions, video monitoring services and cloud-based services 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, along with video solutions that serve hotels and other large venues. In addition, we provide cellular backhaul services to mobile network operators to help them manage their network bandwidth.

We have expanded our service offerings to include a software-defined networking product for medium-sized and enterprise customers. Larger enterprises may also receive support services related to Wi-Fi networks, router management, network security, business continuity risks and other services. These service offerings are primarily provided 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 outside of our service areas.

We recognize revenue as the services are provided on a monthly basis. Substantially all of our 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 based on a billing schedule established in our contracts, which is typically on a monthly basis. Installation revenue and sales commissions are generally deferred and recognized over the respective contract terms.

Advertising

Revenue is generated from the sale of advertising and technology, tools and solutions relating to advertising businesses. As part of 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

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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. 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, we also provide 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

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

These arrangements are accounted for as licenses of functional intellectual property and revenue 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 60 days.

Advertising

Cable Networks and Broadcast Television generate 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. 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

Filmed Entertainment generates revenue from the worldwide theatrical release of 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 when films are released. We recognize revenue as the films are viewed and exhibited in theaters and payment generally occurs within 30 days after exhibition.

Content Licensing

Cable Networks, Broadcast Television and Filmed Entertainment 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 agreements generally include fixed pricing and span multiple years. For example, following a film's theatrical release, Filmed Entertainment 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 at any given time equals approximately 1 to 2 years of annual Filmed Entertainment content licensing revenue, which is the segment with the largest portion of this future 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 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 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

Filmed Entertainment 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. Cable Networks and Broadcast Television

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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

Theme Parks generates revenue primarily from guest spending at our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Guest spending includes ticket sales and in-park spending on food, beverages and merchandise. We recognize revenue from 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 in-park spending at the point of sale.

Sky Segment

Direct-to-Consumer

Revenue is generated from subscribers to our video services from both residential and business customers. We also provide 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. Our video, high-speed internet, voice and wireless phone services generally may be purchased 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 direct-to-consumer revenue, which generally will be recognized within 2 years.

Content

Revenue is generated from the distribution of our television channels on third-party platforms and the licensing of owned and acquired programming to third-party video providers. See the NBCUniversal segment discussion of distribution and content licensing revenue above for accounting policies for these types of arrangements.

Advertising

Revenue is generated from advertising and sponsorships across our owned television channels and where we represent the sales efforts of third-party channels. We also sell targeted advertising and generate revenue from online and mobile advertising and advertising across our On Demand services. Revenue is recognized when the advertising is aired or viewed. Since we are acting as the principal in the arrangements where we represent 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)	2019	2018
Receivables, gross	\$ 11,711	\$ 11,456
Less: Allowance for doubtful accounts	419	352
Receivables, net	\$ 11,292	\$ 11,104

December 31 (in millions)	2019	2018
Noncurrent receivables (included in other noncurrent assets, net)	\$ 1,337	\$ 1,399
Contract acquisition and fulfillment costs (included in other noncurrent assets, net)	\$ 1,083	\$ 991
Noncurrent deferred revenue (included in other noncurrent liabilities)	\$ 618	\$ 650

In Cable Communications and Sky, 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 services.

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Note 4: Programming and Production Costs

Video Distribution Programming Expenses

Programming expenses for Cable Communications and Sky are the fees we pay to license the programming we distribute to our customers. Programming is generally acquired under multiyear distribution agreements, with rates typically based on the number of customers that receive the programming 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.

Film and Television Costs

Cable Networks, Broadcast Television, Filmed Entertainment and Sky 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)	2019	2018
Film Costs:		
Released, less amortization	\$ 1,551	\$ 1,600
Completed, not released	187	144
In production and in development	1,314	1,063
	3,052	2,807
Television Costs:		
Released, less amortization	2,810	2,289
In production and in development	1,162	953
	3,972	3,242
Programming rights, less amortization	5,786	5,534
	12,810	11,583
Less: Current portion of programming rights	3,877	3,746
Film and television costs	\$ 8,933	\$ 7,837

Based on our current estimates of the total remaining revenue from all sources ("ultimate revenue"), in 2020 we expect to amortize approximately \$1.9 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 2022, we expect to amortize approximately 88% of unamortized film and television costs for our released productions, excluding amounts allocated to acquired libraries.

As of December 31, 2019, acquired film and television libraries, which are included within the "released, less amortization" captions in the table above, had remaining unamortized costs of \$328 million. These costs are generally amortized over a period not to exceed 20 years, and approximately 47% of these costs are expected to be amortized through 2022.

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.

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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 rights for content that we license but do not own 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 recognize the costs of multiyear, live-event sports programming rights as the rights are utilized over the contract term based on estimated relative value. Estimated relative value is generally based on the ratio of the current period revenue to the estimated ultimate revenue or the terms of the contract. Advance payments for rights to multiyear, live-event sports programming are included in programming rights.

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 Cable Networks is primarily tested on a channel basis for impairment, whereas programming acquired by Broadcast Television 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

Income Before Income Taxes

Year ended December 31 (in millions)	2019	2018	2017
Domestic	\$ 16,646	\$ 14,387	\$ 14,331
Foreign	350	855	1,022
	\$ 16,996	\$ 15,242	\$ 15,353

Components of Income Tax (Expense) Benefit

Year ended December 31 (in millions)	2019	2018	2017
Current (Expense) Benefit:			
Federal	\$ (2,085)	\$ (2,026)	\$ (2,411)
State	(425)	(639)	(277)
Foreign	(600)	(425)	(389)
	(3,110)	(3,090)	(3,077)
Deferred (Expense) Benefit:			
Federal	(902)	(546)	10,651
State	15	167	(11)
Foreign	324	89	6
	(563)	(290)	10,646
Income tax (expense) benefit	\$ (3,673)	\$ (3,380)	\$ 7,569

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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)	2019	2018	2017
Federal tax at statutory rate	\$ (3,569)	\$ (3,201)	\$ (5,374)
State income taxes, net of federal benefit	(306)	(212)	(299)
Foreign income taxed at different rates	(126)	(147)	(70)
Nontaxable income attributable to noncontrolling interests	51	20	45
Adjustments to uncertain and effectively settled tax positions, net	(3)	(144)	62
Accrued interest and penalties on uncertain and effectively settled tax positions, net	13	(29)	(3)
Excess tax benefits recognized on share-based compensation	196	75	297
Tax legislation	31	120	12,682
Other	40	138	229
Income tax (expense) benefit	\$ (3,673)	\$ (3,380)	\$ 7,569

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 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.

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 new legislation reduced the federal corporate income tax rate to 21% from 35% effective January 1, 2018, which resulted in a \$12.7 billion net income tax benefit to us for 2017, primarily related to the remeasurement of deferred taxes at the new tax rate. Our federal income tax expense for periods beginning in 2018 is based on the new rate.

Comcast Corporation

Components of Net Deferred Tax Liability

December 31 (in millions)	2019	2018
Deferred Tax Assets:		
Net operating loss and other loss carryforwards	\$ 2,017	\$ 1,926
Nondeductible accruals and other	2,779	2,656
Less: Valuation allowance	1,906	632
	2,890	3,950
Deferred Tax Liabilities:		
Differences between book and tax basis of property and equipment and intangible assets	29,387	29,139
Differences between book and tax basis of investments	702	491
Differences between book and tax basis of long-term debt	751	604
Differences between book and tax basis of foreign subsidiaries and undistributed foreign earnings	143	85
	30,983	30,319
Net deferred tax liability	\$ 28,093	\$ 26,369

Changes in our net deferred tax liability in 2019 that were not recorded as deferred income tax benefit (expense) are primarily related to an increase of \$118 million associated with items included in other comprehensive income (loss) and an increase in net deferred tax liabilities of \$1.0 billion as a result of the finalization of acquisition accounting for Sky. Our net deferred tax liability includes \$15.4 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.

As of December 31, 2019, we had federal net operating loss carryforwards of \$274 million, and various state net operating loss carryforwards, the majority of which expire in periods through 2039. As of December 31, 2019, we also had foreign net operating loss carryforwards of \$5.6 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, 2019 and 2018, our valuation allowance was primarily related to foreign and state net operating loss carryforwards. In 2019, in conjunction with the finalization of acquisition accounting for Sky, we recorded an additional valuation allowance of approximately \$1.2 billion associated with our assessment of the realization of Sky's deferred tax assets, primarily related to net operating losses.

Uncertain Tax Positions

Our liability for uncertain tax positions as of December 31, 2019 totaled \$1.0 billion, which excludes the federal benefits on state tax positions that were recorded as deferred income taxes.

Reconciliation of Unrecognized Tax Benefits

(in millions)	2019	2018	2017
Gross unrecognized tax benefits, January 1	\$ 1,543	\$ 1,497	\$ 1,443
Additions based on tax positions related to the current year	230	229	121
Additions based on tax positions related to prior years	133	125	319
Additions from acquired subsidiaries	1	130	—
Reductions for tax positions of prior years	(344)	(346)	(251)
Reductions due to expiration of statutes of limitations	(117)	(75)	(70)
Settlements with tax authorities	(24)	(17)	(65)
Gross unrecognized tax benefits, December 31	1,422	1,543	1,497
Positions paid	(409)	(531)	(688)
Liability for uncertain tax positions	\$ 1,013	\$ 1,012	\$ 809

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 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.

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As of December 31, 2019 and 2018, our accrued interest associated with our liability for uncertain tax positions was \$186 million and \$203 million, respectively.

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)	2019			2018			2017		
	Net Income Attributable to Comcast Corporation	Shares	Per Share Amount	Net Income Attributable to Comcast Corporation	Shares	Per Share Amount	Net Income Attributable to Comcast Corporation	Shares	Per Share Amount
Basic EPS attributable to Comcast Corporation shareholders	\$ 13,057	4,548	\$ 2.87	\$ 11,731	4,584	\$ 2.56	\$ 22,735	4,708	\$ 4.83
Effect of dilutive securities:									
Assumed exercise or issuance of shares relating to stock plans		62			56			78	
Diluted EPS attributable to Comcast Corporation shareholders	\$ 13,057	4,610	\$ 2.83	\$ 11,731	4,640	\$ 2.53	\$ 22,735	4,786	\$ 4.75

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, 2019	2019 ^(b)	2018 ^(b)
Commercial paper	—	\$ —	\$ 675
Revolving credit facilities	—	—	606
Term loans	1.87%	8,078	13,268
Senior notes with maturities of 5 years or less, at face value	3.29%	26,378	26,331
Senior notes with maturities between 5 and 10 years, at face value	3.74%	21,683	26,727
Senior notes with maturities greater than 10 years, at face value	4.54%	46,653	45,030
Other, including capital lease obligations	—	1,098	808
Debt issuance costs, premiums, discounts, fair value adjustments for acquisition accounting and hedged positions, net ^(a)	—	(1,673)	(1,702)
Total debt	3.78% ^(a)	102,217	111,743
Less: Current portion		4,452	4,398
Long-term debt		\$ 97,765	\$ 107,345

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

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(b) As of December 31, 2019, included in our outstanding debt were foreign currency denominated borrowings with principal amounts of £4.9 billion, €4.9 billion, ¥267 billion and ¥9 billion RMB. As of December 31, 2018, included in our outstanding debt were foreign currency denominated borrowings with principal amounts of £7.3 billion, €4.9 billion, ¥390 billion and ¥4 billion RMB.

As of December 31, 2019 and 2018, our debt had an estimated fair value of \$115.8 billion and \$114.1 billion, respectively. The estimated fair value of our publicly traded debt was primarily based on level 1 inputs that use quoted market value 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)		
2020	\$	4,455
2021	\$	9,125
2022	\$	5,581
2023	\$	7,664
2024	\$	6,759
Thereafter	\$	70,306

We use cross-currency swaps as cash flow hedges 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, which hedge currency exchange risks associated with foreign currency denominated cash flows such as interest and principal debt repayments. As of both December 31, 2019 and 2018, we had cross-currency swaps designated as cash flow hedges on \$3.7 billion of our foreign currency denominated debt. As of December 31, 2019 and 2018, the aggregate estimated fair values of cross-currency swaps designated as cash flow hedges were a net asset of \$373 million and \$399 million, respectively.

We are also exposed to foreign exchange risk on the consolidation of our foreign operations. We have foreign currency denominated debt and use cross-currency swaps to hedge our net investments in certain of these subsidiaries. Transaction gains and losses resulting from currency movements on debt and changes in fair value of cross-currency swaps designated as net investment hedges are recorded within the currency translation adjustments component of accumulated other comprehensive income (loss). The aggregate amount of our net investment in foreign subsidiaries that have been hedged using cross-currency swaps and foreign currency denominated debt was \$14.0 billion and \$15.6 billion, as of December 31, 2019 and 2018, respectively. As of December 31, 2019 and 2018, the aggregate estimated fair value of the cross-currency swaps was a net liability of \$373 million and \$587 million, respectively. As of December 31, 2019 and 2018, there were pre-tax cumulative translation gains of \$339 million and pre-tax cumulative translation losses of \$4 million, respectively, related to these net investment hedges recorded in accumulated other comprehensive income (loss).

Commercial Paper Programs

Our commercial paper programs provide a lower-cost source of borrowing to fund our short-term working capital requirements.

Revolving Credit Facilities

As of December 31, 2019, we had \$9.2 billion of revolving credit facilities due 2022 with a syndicate of banks that may be used for general corporate purposes. In June 2019, we amended the terms of our revolving credit facilities to extend their expiration dates from May 26, 2021 to May 26, 2022. We may increase the commitment under the revolving credit facilities up to a total of \$12 billion, as well as extend the expiration dates to 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, 2019, the borrowing margin for borrowings based on the London Interbank Offered Rate was 1.00%. Our revolving credit facilities require that we maintain certain financial ratios based on debt and EBITDA, as defined in the revolving credit facilities. We were in compliance with all financial covenants for all periods presented.

As of December 31, 2019, amounts available under our revolving credit facilities, net of amounts outstanding under our commercial paper programs and outstanding letters of credit and bank guarantees, totaled \$9.2 billion. In 2019, we made net repayments of \$615 million under Sky's £1 billion revolving credit facility, which was terminated in February 2019.

Letters of Credit and Bank Guarantees

As of December 31, 2019, we and certain of our subsidiaries had undrawn irrevocable standby letters of credit and bank guarantees totaling \$484 million to cover potential fundings under various agreements.

Comcast Corporation

Guarantee Structure

Comcast, Comcast Cable and NBCUniversal fully and unconditionally guarantee each other's debt securities, including the Comcast revolving credit facility. As of December 31, 2019, the principal amount outstanding of debt securities within the cross-guarantee structure totaled \$88.3 billion. Additionally, certain other subsidiary debt securities are guaranteed by Comcast and/or Comcast Cable as described below.

Comcast and Comcast Cable fully and unconditionally guarantee NBCUniversal Enterprise's debt securities, including its revolving credit facility. As of December 31, 2019, the principal amount outstanding of NBCUniversal Enterprise's debt securities guaranteed by Comcast and Comcast Cable totaled \$1.5 billion, all of which will mature within the next 3 years.

Comcast fully and unconditionally guarantees Universal Studios Japan's yen-denominated term loans. As of December 31, 2019, the principal amount outstanding of Universal Studio Japan's term loans guaranteed by Comcast totaled \$2.5 billion (using exchange rates as of December 31, 2019), all of which will mature within the next 3 years.

In May 2019, Comcast provided a full and unconditional guarantee of Sky's debt securities in connection with Sky's noteholders consenting to (i) the transfer of the listing of three series of Sky notes from the Main Market of the London Stock Exchange to the Professional Securities Market of the London Stock Exchange and (ii) amending certain terms of the Sky notes. As of December 31, 2019, the principal amount outstanding of Sky's debt securities guaranteed by Comcast totaled \$9.2 billion (using exchange rates as of December 31, 2019), of which \$6.0 billion will mature within the next 5 years.

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). We financed the acquisition through a combination of fixed and floating rate senior notes, the issuance of term loans and cash on hand.

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.

In 2019, we finalized the acquisition accounting in connection with the Sky transaction, which primarily resulted in decreases to intangible assets and investments (included below in other noncurrent assets and (liabilities), net), an increase to property and equipment, and corresponding adjustments to deferred taxes. We also recorded an additional valuation allowance of approximately \$1.2 billion associated with our assessment of the realization of Sky's deferred tax assets, primarily related to net operating losses. These changes resulted in an increase in goodwill of approximately \$1.4 billion and an adjustment recorded in 2019 related to the fourth quarter of 2018 that resulted in an increase to depreciation and amortization expense of \$53 million.

Comcast Corporation

The table below presents the 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.

Allocation of Purchase Price

(in millions)	
Consideration transferred	\$ 39,387
<i>Allocation of purchase price</i>	
Cash	\$ 1,283
Accounts receivable and other current assets	2,359
Film and television costs (See Note 4)	2,512
Property and equipment (See Note 11)	4,127
Intangible assets (See Note 12)	19,539
Accounts payable, accrued liabilities and other current liabilities	(5,885)
Long-term debt (See Note 7)	(11,468)
Deferred tax assets (liabilities), net (See Note 5)	(2,974)
Other noncurrent assets and (liabilities), net	(1,398)
Fair value of identifiable net assets acquired	8,095
Goodwill (See Note 12)	\$ 31,292

Property and Equipment

Property and equipment includes customer premise equipment with a carrying value of \$1.4 billion, which have original estimated useful lives of 5 to 7 years. The remaining property and equipment includes network assets, real estate and other machinery and equipment.

Intangible Assets

Finite-lived intangible assets primarily consist of customer relationships with a carrying amount of \$9.5 billion and developed technology and software with a carrying amount of \$4.3 billion, with original estimated useful lives between 6 and 19 years and 4 and 9 years, respectively. Indefinite-lived assets consist of trade names with a carrying amount of \$5.8 billion.

Goodwill

Goodwill consists primarily of intangible assets that do not qualify for separate recognition, including increased footprint, assembled workforce, noncontractual relationships and agreements. The acquired goodwill is not expected to be deductible for tax purposes.

Acquisition-Related Costs

As a result of the Sky transaction, we incurred expenses in 2018 related to legal, accounting, valuation and other professional services, 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. The amounts below do not reflect the costs of any integration activities or costs related to synergies that may be achieved as a result of the acquisition.

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

Unaudited Pro Forma Information

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 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. The year ended December 31, 2019 is not presented as Sky is included in the consolidated results for the entire period.

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Year ended December 31 (in millions, except per share data)	2018	2017
Revenue	\$ 109,518	\$ 102,971
Net income attributable to Comcast Corporation	\$ 12,176	\$ 22,085
Basic earnings per common share attributable to Comcast Corporation shareholders	\$ 2.66	\$ 4.69
Diluted earnings per common share attributable to Comcast Corporation shareholders	\$ 2.62	\$ 4.61

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 (“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 \$3.8 billion). *The debt financing is secured by the assets of Universal Beijing Resort and the equity interests of the investors.* As of December 31, 2019, Universal Beijing Resort had \$1.3 billion principal amount of a term loan outstanding under the debt 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. Our consolidated statement of cash flows includes the costs of construction and related borrowings in the “construction of Universal Beijing Resort” and “proceeds from borrowings” captions, respectively, and equity contributions from the noncontrolling interests are included in other financing activities.

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, 2019, our consolidated balance sheet included assets, primarily property and equipment, and liabilities, including the term loan, of Universal Beijing Resort totaling \$3.0 billion and \$2.1 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.

Note 9: Recent Accounting Pronouncements

Leases

In February 2016, the FASB updated the accounting guidance related to leases. The most significant change in the updated accounting guidance requires lessees to recognize lease assets and liabilities on the balance sheet for all operating leases with the exception of short-term leases. The standard also expands the disclosures regarding the amount, timing and uncertainty of cash flows arising from leases. For a lessee, the recognition, measurement and presentation of expenses and cash flows arising from a lease did not significantly change from previous guidance. We adopted the updated guidance on January 1, 2019 on a prospective basis and as a result, prior period amounts were not adjusted to reflect the impacts of the updated guidance. In addition, as permitted under the transition guidance within the new standard, prior scoping and classification conclusions were carried forward for leases existing as of the adoption date.

Comcast Corporation

Upon adoption, we recorded \$4.2 billion and \$4.8 billion for operating lease assets and liabilities, respectively, which includes the impact of fair value adjustments, prepaid and deferred rent and lease incentives. The adoption of the updated accounting guidance did not significantly impact our recognition of finance leases, which were previously described as capital leases. As of the date of adoption, our liabilities for finance leases were \$787 million, including \$229 million of additional contracts determined to be leases in connection with the Sky transaction, which were recorded in long-term debt, and the related assets were recorded in property and equipment, net. Our finance leases were not considered material for further disclosure. The adoption of the new accounting guidance did not have a material impact on our consolidated results of operations or cash flows. See Note 17 for further information.

Film and Television Costs

In March 2019, the FASB updated the accounting guidance related to film and television costs. The updated guidance aligns the accounting for production costs of episodic television series with those of films, allowing for costs to be capitalized in excess of amounts of revenue contracted for each episode. The updated guidance also updates certain presentation and disclosure requirements for capitalized film and television costs and requires impairment testing to be performed at a group level for capitalized film and television costs when the content is predominantly monetized with other owned or licensed content. We will adopt the updated accounting guidance prospectively in the first quarter of 2020. Following adoption, we will present all film and television costs, including capitalized costs of acquired programming rights, as noncurrent assets in the consolidated balance sheet. We do not expect the updated accounting guidance to have a material impact on our consolidated results of operations or financial position.

Credit Losses

In June 2016, the FASB updated the accounting guidance related to the measurement of credit losses on financial instruments, including trade receivables and loans. The updated guidance requires the recognition of credit losses on financial instruments based on an estimate of expected losses, replacing the incurred loss model in the prior guidance. We will adopt the updated accounting guidance prospectively in the first quarter of 2020. We do not expect the updated accounting guidance to have a material impact on our consolidated results of operations or financial position.

Note 10: Investments

Investment and Other Income (Loss), Net				
Year ended December 31 (in millions)		2019	2018	2017
Equity in net income (losses) of investees, net	\$	(505)	\$ (364)	\$ 107
Realized and unrealized gains (losses) on equity securities, net		656	(187)	(17)
Other income (loss), net		287	326	331
Investment and other income (loss), net	\$	438	\$ (225)	\$ 421

Investments			
December 31 (in millions)		2019	2018
Equity method	\$	5,347	\$ 4,035
Marketable equity securities		353	341
Nonmarketable equity securities		1,896	1,805
Other investments		1,796	1,796
Total investments		9,392	7,977
Less: Current investments		1,709	94
Less: Investment securing collateralized obligation		694	—
Noncurrent investments	\$	6,989	\$ 7,883

Comcast Corporation

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 partnership or limited liability company interest in an entity with specific ownership accounts, unless we have virtually no influence over the investee's operating and financial policies. Equity method investments are recorded at cost and are adjusted to recognize (1) our share, based on percentage ownership or other contractual basis, 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. We have committed to fund Atairos up to \$5 billion in the aggregate at any one time, subject to certain offsets, and \$45 million annually for a management fee, subject to certain 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 our remaining unfunded capital commitment of \$2.2 billion as of December 31, 2019.

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 2019 and 2018, we recognized losses of \$64 million and \$31 million, respectively; in 2017, we recognized income of \$281 million. In 2019, 2018 and 2017, we made cash capital contributions totaling \$571 million, \$282 million and \$994 million, respectively, to Atairos. As of December 31, 2019 and 2018, our investment was \$3.2 billion and \$2.7 billion, 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.

Hulu and Collateralized Obligation

In May 2019, we entered into a series of agreements (the "Hulu Transaction") with The Walt Disney Company and certain of its subsidiaries, whereby we relinquished our board seats and substantially all voting rights associated with our investment in Hulu, and Disney assumed full operational control. We also acquired our proportionate share of the approximate 10% interest in Hulu previously held by AT&T Inc. ("AT&T") for approximately \$477 million, increasing our ownership interest to approximately 33% from approximately 30%.

Following the Hulu Transaction, future capital calls are limited to \$1.5 billion in the aggregate each year, with any excess funding requirements funded with member loans. We have the right, but not the obligation, to fund our proportionate share of these capital calls, and if we elect not to fund our share of future equity capital calls, our ownership interest will be diluted, subject to an ownership floor of 21%. The Hulu Transaction agreements include put and call provisions regarding our ownership interest in Hulu, pursuant to which, as early as January 2024, we can require Disney to buy, and Disney can require us to sell our interest, in either case, for fair value at that future time subject to a minimum equity value of \$27.5 billion for 100% of the equity of Hulu. The minimum total equity value and ownership floor guarantee minimum proceeds of approximately \$5.8 billion upon exercise of the put or call.

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In connection with the Hulu Transaction, we agreed to extend certain licenses of NBCUniversal content until late 2024. We can terminate most of our content license agreements with Hulu beginning in 2022, and beginning in 2020, we have the right to modify certain content licenses that are currently exclusive to Hulu, so that we can exhibit the content on our platforms in return for reducing the license fee.

In August 2019, we entered into a financing arrangement with a syndicate of banks whereby we received proceeds of \$5.2 billion under a term loan facility due March 2024. The principal amount of the term loan is secured by the proceeds guaranteed by Disney under the put/call provisions related to our investment in Hulu. The proceeds from the put/call provisions are available only for the repayment of the term loan and are not available to us unless and until the bank lenders are fully paid under the term loan provisions. The bank lenders have no rights to proceeds from the put/call provisions in excess of amounts owed under the term loan. As a result of this transaction, we now present our investment in Hulu and the term loan separately in our consolidated balance sheet in the captions “investment securing collateralized obligation” and “collateralized obligation”, respectively. The recorded value of our investment reflects our historical cost in applying the equity method, and as a result, is less than its fair value. As of December 31, 2019, our collateralized obligation had a carrying value of \$5.2 billion and an estimated fair value of \$5.2 billion. The estimated fair value was based on level 2 inputs that use interest rates for debt with similar terms and remaining maturities.

We account for our investment using the equity method. In 2019, 2018 and 2017, we recognized losses of \$473 million, \$454 million and \$276 million, respectively, in equity in net income (losses) of investees, net. In 2019, 2018 and 2017, we made cash capital contributions totaling \$903 million, inclusive of the funding for the acquisition of the AT&T interest, \$454 million and \$300 million, respectively, to Hulu. As of December 31, 2019 and 2018, our investment was \$694 million and \$248 million, respectively.

In August 2016, Time Warner Inc., which was acquired by AT&T in 2018, acquired a 10% interest in Hulu, diluting our interest at that time from approximately 33% to approximately 30%. Given the contingent nature of put and call options related to that interest, we recorded a deferred gain as a result of the dilution. In the first quarter of 2019, the put and call options expired unexercised and we recognized the previously deferred gain of \$159 million in other income (loss), net.

Marketable Equity Securities

We classify 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 was classified as a marketable equity security and was sold in 2019. We recognized gains of \$293 million and losses of \$268 million in 2019 and 2018, respectively. As of December 31, 2018, our investment was \$162 million.

Peloton

In 2019, we recognized unrealized gains of \$184 million, which included unrealized gains as a result of Peloton’s initial public offering in September 2019. Following the initial public offering, we now present our investment in marketable equity securities, which was previously presented in non-marketable equity securities. As of December 31, 2019 and 2018, our investment was \$294 million and \$110 million, respectively.

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.

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Other Investments

AirTouch

We hold two series of preferred stock of Verizon Americas, Inc., formerly known as AirTouch Communications, Inc. ("AirTouch"), a subsidiary of Verizon Communications Inc., which are redeemable in April 2020. As of both December 31, 2019 and 2018, our investment in AirTouch was \$1.6 billion, and was included in other current assets and investments, respectively. We account for our investment in AirTouch as a held to maturity investment using the cost method. As of both December 31, 2019 and 2018, 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 December 31, 2019 and 2018, the two series of redeemable subsidiary preferred shares were recorded at \$1.7 billion and \$1.6 billion, respectively, and were included in other current liabilities and other noncurrent liabilities, respectively. As of both December 31, 2019 and 2018, 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, 2019 and 2018, 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, 2019	2019	2018
Distribution systems	11 years	\$ 40,639	\$ 38,380
Customer premise equipment	6 years	26,065	26,208
Other equipment	9 years	13,025	12,437
Buildings and leasehold improvements	30 years	15,104	14,188
Construction in process	N/A	5,245	2,991
Land	N/A	1,483	1,539
Property and equipment, at cost		101,561	95,743
Less: Accumulated depreciation		53,239	51,306
Property and equipment, net		\$ 48,322	\$ 44,437

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. Capital expenditures for acquisitions and construction of real estate properties and the construction of Universal Beijing Resort are presented separately in our consolidated statement of cash flows.

In accordance with the accounting guidance related to cable television companies, Cable Communications 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

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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.

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 retirement obligations recorded in our consolidated financial statements.

Note 12: Goodwill and Intangible Assets

Goodwill

	NBCUniversal								
(in millions)	Cable Communications	Cable Networks	Broadcast Television	Filmed Entertainment	Theme Parks	Sky	Corporate and Other	Total	
Balance, December 31, 2017	\$ 12,784	\$ 13,427	\$ 806	\$ 3,212	\$ 6,544	\$ —	\$ 7	\$ 36,780	
Acquisitions ^(a)	—	—	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	
Acquisitions	86	162	14	—	—	17	—	279	
Dispositions	—	—	—	—	—	(12)	—	(12)	
Adjustments ^(b)	2,166	490	199	138	—	(1,616)	2	1,379	
Foreign currency translation	38	8	3	(1)	55	822	—	925	
Balance, December 31, 2019	\$ 15,074	\$ 14,067	\$ 1,059	\$ 3,321	\$ 6,739	\$ 28,461	\$ 4	\$ 68,725	

(a) Acquisitions in 2018 primarily included the Sky acquisition. As of December 31, 2018, the goodwill resulting from the Sky acquisition was presented in the Sky segment. See Note 8 for further information on the Sky acquisition.

(b) Adjustments in 2019 primarily included 1) measurement period adjustments resulting from finalization of acquisition accounting for Sky and 2) the final assignment of goodwill resulting from the Sky transaction to our reporting units.

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 increased footprint, 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.

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Intangible Assets

December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2019	2019		2018	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Indefinite-Lived Intangible Assets:					
Franchise rights	N/A	\$ 59,365		\$ 59,365	
Trade names	N/A	8,809		9,633	
FCC licenses	N/A	2,337		2,333	
Finite-Lived Intangible Assets:					
Customer relationships	14 years	22,884	\$ (8,295)	25,046	\$ (6,682)
Software	5 years	15,357	(7,287)	11,395	(5,990)
Other agreements and rights	23 years	3,958	(1,635)	4,145	(1,522)
Total		\$ 112,710	\$ (17,217)	\$ 111,917	\$ (14,194)

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)	
2020	\$ 4,113
2021	\$ 3,649
2022	\$ 3,090
2023	\$ 2,589
2024	\$ 2,184

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.

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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)	2019		2018		2017
Benefit obligation	\$	3,273	\$	2,885	\$ 2,539
Interest expense	\$	285	\$	222	\$ 209

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 are credited with income primarily based on a fixed annual rate. 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, 2019 and 2018, the cash surrender value of these policies, which is recorded to other noncurrent assets, was \$423 million and \$351 million, respectively.

Pension and Postretirement Benefit 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 2019, 2018 and 2017, expenses related to these plans totaled \$573 million, \$546 million and \$458 million, respectively.

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. NBCUniversal sponsors various nonqualified defined benefit pension plans for domestic employees. The future benefits for these plans have been frozen since the beginning of 2013. 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 plans are all unfunded and not material.

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. 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. In 2019, 2018 and 2017, the total contributions we made to multiemployer benefit plans were not material.

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 2019, 2018 and 2017, we recorded severance costs of \$359 million, \$243 million and \$203 million, respectively.

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Note 14: Equity

Common Stock

In the aggregate, holders of our Class A common stock have 66⅔% of the voting power of our common stock and holders of our Class B common stock have 33⅓% 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 33⅓% 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)	Class A	Class B
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
Stock compensation plans	21	—
Repurchases and retirements of common stock	—	—
Employee stock purchase plans	6	—
Balance, December 31, 2019	4,544	9

Share Repurchases

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, 2019, \$2.0 billion remained under this authorization.

Share Repurchases Under Share Repurchase Program Authorization			
Year ended December 31 (in millions)	2019	2018	2017
Cash consideration	\$ —	\$ 5,000	\$ 5,000
Shares repurchased	—	140	131
Accumulated Other Comprehensive Income (Loss)			
December 31 (in millions)	2019	2018	
Unrealized gains (losses) on marketable securities	\$ 6	\$ 3	
Deferred gains (losses) on cash flow hedges	139	55	
Unrecognized gains (losses) on employee benefit obligations	265	325	
Cumulative translation adjustments	637	(751)	
Accumulated other comprehensive income (loss), net of deferred taxes	\$ 1,047	\$ (368)	

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)	2019	2018	2017
Restricted share units	\$ 564	\$ 402	\$ 349
Stock options	231	205	205
Employee stock purchase plans	30	32	32
Total	\$ 825	\$ 639	\$ 586

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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, 2019, 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.

Stock Options and Restricted Share Units

As of December 31, 2019, unless otherwise stated (in millions, except per share data)	Stock Options	RSUs
Awards granted during 2019	42	17
Weighted-average exercise price of awards granted during 2019	\$ 40.50	
Stock options outstanding and nonvested RSUs	192	51
Weighted-average exercise price of stock options outstanding	\$ 31.84	
Weighted-average fair value at grant date of nonvested RSUs		\$ 36.54

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	2019	2018	2017
RSUs fair value	\$ 40.42	\$ 35.56	\$ 37.77
Stock options fair value	\$ 7.91	\$ 7.14	\$ 7.01
Stock Option Valuation Assumptions:			
Dividend yield	2.1%	2.1%	1.7%
Expected volatility	22.0%	22.0%	20.1%
Risk-free interest rate	2.5%	2.7%	2.2%
Expected option life (in years)	6.0	6.0	6.1

As of December 31, 2019, we had unrecognized pretax compensation expense of \$1.1 billion related to nonvested RSUs and unrecognized pretax compensation expense of \$493 million related to nonvested stock options that will be recognized over a weighted-average period of approximately 1.5 years and 1.7 years, respectively. In 2019, 2018, and 2017, we recognized \$196 million, \$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.

Note 16: Supplemental Financial Information

Cash Payments for Interest and Income Taxes

Year ended December 31 (in millions)	2019	2018	2017
Interest	\$ 4,254	\$ 2,897	\$ 2,820
Income taxes	\$ 3,231	\$ 2,355	\$ 4,057

Noncash Activities

During 2019:

- we acquired \$1.9 billion of property and equipment and intangible assets that were accrued but unpaid
- we recorded a liability of \$956 million for a quarterly cash dividend of \$0.21 per common share paid in January 2020

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

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- 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

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)	2019	2018
Cash and cash equivalents	\$ 5,500	\$ 3,814
Restricted cash included in other current assets	42	46
Restricted cash included in other noncurrent assets, net	47	49
Cash, cash equivalents and restricted cash, end of year	\$ 5,589	\$ 3,909

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.

Note 17: Commitments and Contingencies

Programming and Talent Commitments

NBCUniversal and Sky enter into long-term commitments with third parties in the ordinary course of 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, 2019, the total number of NBCUniversal employees covered by collective bargaining agreements was 9,400 full-time equivalent employees. Approximately, 12% of these full-time equivalent employees were covered by collective bargaining agreements that have expired or are scheduled to expire during 2020.

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. Programming and talent commitments include acquired film and television programming, 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, 2019 (in millions)	Programming and Talent Commitments
2020	\$ 14,682
2021	\$ 7,701
2022	\$ 7,849
2023	\$ 3,674
2024	\$ 4,595
Thereafter	\$ 13,230

Leases

Our leases consist primarily of real estate, vehicles and other equipment. We determine if an arrangement is a lease at inception. Lease assets and liabilities are recognized upon commencement of the lease based on the present value of the future minimum lease payments over the lease term. The lease term includes options to extend the lease when it is reasonably certain that we will

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exercise that option. We generally utilize our incremental borrowing rate based on information available at the commencement of the lease in determining the present value of future payments. The lease asset also includes any lease payments made and initial direct costs incurred and excludes lease incentives. Lease assets and liabilities are not recorded for leases with an initial term of one year or less. Lease expense for operating leases recorded in the balance sheet is included in operating costs and expenses and is based on the future minimum lease payments recognized on a straight-line basis over the term of the lease plus any variable lease costs. Operating lease expenses, inclusive of short-term and variable lease expenses, recognized in our consolidated statement of income for the period ended December 31, 2019 was \$1.1 billion. This amount does not include lease costs associated with production activities or other amounts capitalized in our consolidated balance sheet, which are not material.

The table below summarizes the operating lease assets and liabilities recorded in our consolidated balance sheet.

Consolidated Balance Sheet

(in millions)	December 31, 2019
Other noncurrent assets, net	\$ 4,038
Accrued expenses and other current liabilities	\$ 715
Other noncurrent liabilities	\$ 3,891

The table below summarizes our future minimum lease commitments for operating leases as of December 31, 2019 applying the new guidance.

(in millions)	December 31, 2019
2020	\$ 877
2021	791
2022	669
2023	566
2024	480
Thereafter	2,243
Total future minimum lease payments	5,626
Less: imputed interest	1,020
Total liability	\$ 4,606

The weighted average remaining lease term for operating leases and the weighted average discount rate used to calculate our operating lease liabilities as of December 31, 2019 were 10 years and 3.74%, respectively.

In 2019, cash payments for operating leases recorded in the consolidated balance sheet were \$914 million. Leases that have not yet commenced and lease assets and liabilities associated with leases entered into during the year were not material.

The tables below summarize our future minimum rental commitments for operating leases as of December 31, 2018 and rent expense for operating leases using the accounting guidance in effect at that time. These amounts have been updated to include \$804 million of future cash payments related to additional contracts determined to be operating leases in connection with the Sky transaction.

(in millions)	December 31, 2018	
2019	\$	891
2020	\$	824
2021	\$	722
2022	\$	592
2023	\$	513
Thereafter	\$	2,608
Year ended December 31 (in millions)	2018	2017
Rental expense	\$ 779	\$ 839

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

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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, 2019, our carrying value was \$1.1 billion, and the estimated value of the contractual obligation was \$1.8 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, 2019 and 2018, the fair value of the NBCUniversal Enterprise redeemable subsidiary preferred stock was \$749 million and \$741 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 subject to 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
2019					
Revenue	\$ 26,859	\$ 26,858	\$ 26,827	\$ 28,398	\$ 108,942
Operating income	\$ 5,182	\$ 5,356	\$ 5,340	\$ 5,247	\$ 21,125
Net income attributable to Comcast Corporation	\$ 3,553	\$ 3,125	\$ 3,217	\$ 3,162	\$ 13,057
Basic earnings per common share attributable to Comcast Corporation shareholders	\$ 0.78	\$ 0.69	\$ 0.71	\$ 0.69	\$ 2.87
Diluted earnings per common share attributable to Comcast Corporation shareholders	\$ 0.77	\$ 0.68	\$ 0.70	\$ 0.68	\$ 2.83
Dividends declared per common share	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.21	\$ 0.84
2018^(a)					
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

Minor differences may exist due to rounding.

(a) The 2018 amounts include the operations of Sky from October 9, 2018 through December 31, 2018. See Note 8 for additional information.

Comcast Corporation

Note 19: Condensed Consolidating Financial Information

Comcast ("Comcast Parent"), Comcast Cable Communications, LLC ("CCCL Parent") and NBCUniversal ("NBCUniversal Media Parent") fully and unconditionally guarantee each other's debt. See Note 7 for additional information on the cross-guarantee structure.

Condensed Consolidating Statement of Income

For the Year Ended December 31, 2019 (in millions)	Comcast Parent	Comcast Holdings	CCCL Parent	NBCUniversal Media Parent	Non-Guarantor Subsidiaries	Elimination and Consolidation Adjustments	Consolidated Comcast Corporation
Revenue:							
Service revenue	\$ —	\$ —	\$ —	\$ —	\$ 108,942	\$ —	\$108,942
Management fee revenue	1,262	—	1,236	—	—	(2,498)	—
Total revenue	1,262	—	1,236	—	108,942	(2,498)	108,942
Costs and Expenses:							
Programming and production	—	—	—	—	34,440	—	34,440
Other operating and administrative	801	16	1,236	957	32,295	(2,498)	32,807
Advertising, marketing and promotion	—	—	—	—	7,617	—	7,617
Depreciation	61	—	—	—	8,602	—	8,663
Amortization	5	—	—	—	4,285	—	4,290
Other operating gains	—	—	—	—	—	—	—
Total costs and expenses	867	16	1,236	957	87,239	(2,498)	87,817
Operating income (loss)	395	(16)	—	(957)	21,703	—	21,125
Interest expense	(3,511)	(13)	(190)	(474)	(379)	—	(4,567)
Investment and other income (loss), net	15,581	15,366	13,787	7,260	5,755	(57,311)	438
Income (loss) before income taxes	12,465	15,337	13,597	5,829	27,079	(57,311)	16,996
Income tax (expense) benefit	592	(9)	40	(45)	(4,251)	—	(3,673)
Net income (loss)	13,057	15,328	13,637	5,784	22,828	(57,311)	13,323
Less: Net income attributable to noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	266	—	266
Net income (loss) attributable to Comcast Corporation	\$13,057	\$15,328	\$13,637	\$ 5,784	\$ 22,562	\$ (57,311)	\$ 13,057
Comprehensive income (loss) attributable to Comcast Corporation	\$14,472	\$15,321	\$13,641	\$ 5,744	\$ 24,210	\$ (58,916)	\$ 14,472

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 loss 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 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 Cash Flows

For the Year Ended December 31, 2019 (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	\$ (1,693)	\$ 318	\$ (119)	\$ (1,232)	\$ 28,423	\$ —	\$ 25,697
Investing Activities:							
Net transactions with affiliates	10,218	(318)	119	3,354	(13,373)	—	—
Capital expenditures	(42)	—	—	—	(9,911)	—	(9,953)
Cash paid for intangible assets	(4)	—	—	—	(2,471)	—	(2,475)
Acquisitions and construction of real estate properties	(51)	—	—	—	(3)	—	(54)
Construction of Universal Beijing Resort	—	—	—	—	(1,116)	—	(1,116)
Acquisitions, net of cash acquired	—	—	—	—	(370)	—	(370)
Proceeds from sales of businesses and investments	—	—	—	—	886	—	886
Purchases of investments	(36)	—	—	(72)	(1,791)	—	(1,899)
Other	—	—	—	—	140	—	140
Net cash provided by (used in) investing activities	10,085	(318)	119	3,282	(28,009)	—	(14,841)
Financing Activities:							
Proceeds from (repayments of) short-term borrowings, net	—	—	—	—	(1,288)	—	(1,288)
Proceeds from borrowings	4,741	—	—	—	738	—	5,479
Proceeds from collateralized obligation	—	—	—	—	5,175	—	5,175
Repurchases and repayments of debt	(8,821)	—	—	(2,010)	(3,523)	—	(14,354)
Repurchases of common stock under repurchase program and employee plans	(504)	—	—	—	—	—	(504)
Dividends paid	(3,735)	—	—	—	—	—	(3,735)
Distributions to noncontrolling interests and dividends for redeemable subsidiary preferred stock	—	—	—	—	(311)	—	(311)
Other	(78)	—	—	(40)	475	—	357
Net cash provided by (used in) financing activities	(8,397)	—	—	(2,050)	1,266	—	(9,181)
Impact of foreign currency on cash, cash equivalents and restricted cash	5	—	—	—	—	—	5
Increase (decrease) in cash and cash equivalents and restricted cash	—	—	—	—	1,680	—	1,680
Cash, cash equivalents and restricted cash, beginning of year	—	—	—	416	3,493	—	3,909
Cash, cash equivalents and restricted cash, end of year	\$ —	\$ —	\$ —	\$ 416	\$ 5,173	\$ —	\$ 5,589

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)
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)
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)
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)
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 Balance Sheet

December 31, 2019 (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	\$ 5,084	\$ —	\$ 5,500
Receivables, net	—	—	—	—	11,292	—	11,292
Programming rights	—	—	—	—	3,877	—	3,877
Other current assets	115	19	—	24	4,565	—	4,723
Total current assets	115	19	—	440	24,818	—	25,392
Film and television costs	—	—	—	—	8,933	—	8,933
Investments	270	12	156	1,085	5,466	—	6,989
Investment securing collateralized obligation	—	—	—	—	694	—	694
Investments in and amounts due from subsidiaries eliminated upon consolidation	164,754	152,179	135,536	55,472	92,925	(600,866)	—
Property and equipment, net	660	—	—	—	47,662	—	48,322
Goodwill	—	—	—	—	68,725	—	68,725
Franchise rights	—	—	—	—	59,365	—	59,365
Other intangible assets, net	9	—	—	—	36,119	—	36,128
Other noncurrent assets, net	1,058	327	—	97	7,919	(535)	8,866
Total assets	\$166,866	\$152,537	\$135,692	\$ 57,094	\$ 352,626	\$ (601,401)	\$ 263,414
Liabilities and Equity							
Accounts payable and accrued expenses related to trade creditors	\$ 58	\$ —	\$ —	\$ —	\$ 10,768	\$ —	\$ 10,826
Accrued participations and residuals	—	—	—	—	1,730	—	1,730
Deferred revenue	—	—	—	—	2,768	—	2,768
Accrued expenses and other current liabilities	2,333	245	388	380	7,170	—	10,516
Current portion of long-term debt	2,731	—	—	7	1,714	—	4,452
Total current liabilities	5,122	245	388	387	24,150	—	30,292
Long-term debt, less current portion	75,786	154	2,100	5,752	13,973	—	97,765
Collateralized obligation	—	—	—	—	5,166	—	5,166
Deferred income taxes	—	350	—	67	28,298	(535)	28,180
Other noncurrent liabilities	3,232	145	—	1,634	11,754	—	16,765
Redeemable noncontrolling interests and redeemable subsidiary preferred stock	—	—	—	—	1,372	—	1,372
Equity:							
Common stock	54	—	—	—	—	—	54
Other shareholders' equity	82,672	151,643	133,204	49,254	266,765	(600,866)	82,672
Total Comcast Corporation shareholders' equity	82,726	151,643	133,204	49,254	266,765	(600,866)	82,726
Noncontrolling interests	—	—	—	—	1,148	—	1,148
Total equity	82,726	151,643	133,204	49,254	267,913	(600,866)	83,874
Total liabilities and equity	\$166,866	\$152,537	\$135,692	\$ 57,094	\$ 352,626	\$ (601,401)	\$ 263,414

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
Goodwill	—	—	—	—	66,154	—	66,154
Franchise Rights	—	—	—	—	59,365	—	59,365
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

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 63.

Attestation report of the registered public accounting firm

Refer to Report of Independent Registered Public Accounting Firm on page 64.

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.

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, 2019.

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

As previously disclosed in our Form 10-Q filings for 2019, 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, 2019 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.

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 2020. We refer to this proxy statement as the 2020 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	60	1986	Chairman and Chief Executive Officer; President
Michael J. Cavanagh	54	2015	Senior Executive Vice President; Chief Financial Officer
Stephen B. Burke	61	1998	Senior Executive Vice President; Chairman, NBCUniversal
David L. Cohen	64	2002	Senior Executive Vice President
David N. Watson	60	2017	Senior Executive Vice President; President and Chief Executive Officer, Comcast Cable
Thomas J. Reid	55	2019	Senior Executive Vice President; General Counsel; Secretary
Daniel C. Murdock	46	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, 2019, 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, Inc.

Stephen B. Burke was appointed Chairman of NBCUniversal effective January 1, 2020 and has served as a Senior Executive Vice President of Comcast Corporation since May 2015. From January 2011 to December 2019, Mr. Burke was the President and Chief Executive Officer of NBCUniversal. Prior to leading NBCUniversal, Mr. Burke had been Comcast's Chief Operating Officer and the President of Comcast Cable. Mr. Burke is also a director of JPMorgan Chase & Co. and Berkshire Hathaway Inc.

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.

Thomas J. Reid has served as a Senior Executive Vice President, General Counsel and Secretary since April 2019. Prior to joining our company, Mr. Reid had served as the Chairman and Managing Partner of Davis Polk & Wardwell LLP, a global law firm, since 2011. Prior to that, Mr. Reid was a partner at Davis Polk & Wardwell LLP from 2003 to 2011 and a Managing Director in the Investment Banking Division of Morgan Stanley from 2000 to 2003.

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, 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, Daniel C. Murdock, who has served since March 2017 and Thomas J. Reid, who has served since April 2019. The table also sets forth NBCUniversal Holdings' directors as of December 31, 2019.

Name	Title
Brian L. Roberts	Principal Executive Officer
Michael J. Cavanagh	Principal Financial Officer; Director of NBCUniversal Holdings
Stephen B. Burke	Chairman
David L. Cohen	Senior Executive Vice President; Director of NBCUniversal Holdings
Thomas J. Reid	Senior Executive Vice President; Director of NBCUniversal Holdings
Daniel C. Murdock	Senior Vice President; Principal Accounting Officer

For the year ended December 31, 2019, NBCUniversal reimbursed Comcast \$66 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 2020 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 2020 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 2020 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 2020 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, 2019 and 2018. 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 2019 and 2018.

(in millions)	2019	2018
Audit fees	\$11.9	\$12.8
Audit-related fees	0.7	0.7
Tax fees	0.2	0.2
All other fees	—	0.1
Total	\$12.8	\$13.8

Audit fees in 2019 and 2018 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 2019 and 2018 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 2018.

Tax fees in 2019 and 2018 consisted of fees paid or accrued for domestic and foreign tax compliance services.

All other fees in 2019 and 2018 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 62 of this report. Schedule II, Valuation and Qualifying Accounts, is found on page 151 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):

- 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 (incorporated by reference to Exhibit 3.2 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2018).
- 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).
- 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 (incorporated by reference to Exhibit 4.13 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2018).
- 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 (incorporated by reference to Exhibit 4.14 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2018).
- 4.15 Description of Comcast Corporation's securities registered pursuant to Section 12 of the Securities Exchange Act.
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.
- 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 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).
- 10.3 Amendment No. 2 dated June 18, 2019, 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 June 20, 2019).
- 10.4 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).
- 10.5 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).
- 10.6 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).
- 10.7 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).
- 10.8 Amendment No. 1 dated September 23, 2018, to Term Loan Credit Agreement dated as of April 25, 2018 (incorporated by reference to Exhibit 10.3 to Comcast's Current Report on Form 8-K filed on September 24, 2018).
- 10.9 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).

- 10.10 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).
- 10.11* Comcast Corporation 2003 Stock Option Plan, as amended and restated December 18, 2018 (incorporated by reference to Exhibit 10.13 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2018).
- 10.12* 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).
- 10.13* Comcast Corporation 2005 Deferred Compensation Plan, as amended and restated effective December 10, 2019.
- 10.14* Comcast Corporation 2002 Restricted Stock Plan, as amended and restated effective December 10, 2019.
- 10.15* 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).
- 10.16* Comcast Corporation 2002 Non-Employee Director Compensation Plan, as amended and restated effective December 11, 2019.
- 10.17* 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).
- 10.18* 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).
- 10.19* Employment Agreement with Brian L. Roberts, dated as of 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).
- 10.20* Amendment No. 1 to Employment Agreement with Brian L. Roberts, dated as of December 16, 2019.
- 10.21* 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).
- 10.22* 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).
- 10.23* 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).
- 10.24* Amendment No. 4 to Employment Agreement with Stephen B. Burke, dated as of December 16, 2019.
- 10.25* 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).
- 10.26* Amendment No. 1 to Employment Agreement with David L. Cohen, dated as of December 16, 2019.
- 10.27* Form of Amendment, dated as of December 14, 2012, to the Employment Agreement with 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).
- 10.28* Employment Agreement dated as of 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).
- 10.29* Amendment No. 1 to Employment Agreement with Michael J. Cavanagh, dated as of December 16, 2019.
- 10.30* Employment Agreement dated as of 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).
- 10.31* Amendment No. 1 to Employment Agreement with David N. Watson, dated as of December 16, 2019.
- 10.32* 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).
- 10.33* 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).
- 10.34* 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).

- 10.35* 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).
- 10.36* 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).
- 10.37* 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).
- 10.38* 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).
- 10.39* 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).
- 10.40* 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).
- 10.41* 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 10.1 to Comcast's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019).
- 10.42* 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).
- 10.43* 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).
- 10.44* 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).
- 10.45* 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).
- 10.46 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 (incorporated by reference to Exhibit 10.64 to Comcast's Annual Report on Form 10-K for the year ended December 31, 2018).
- 10.47 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)).
- 10.48 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)).
- 10.49 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)).
- 10.50 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, 2019, filed with the Securities and Exchange Commission on January 30, 2020, 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 123 of this report. Schedule II—Valuation and Qualifying Accounts is found on page 151 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 (incorporated by reference to Exhibit 3.4 to NBCUniversal's Annual Report on Form 10-K for the year ended December 31, 2018).
- 3.5 Second 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 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).
- 10.4 Amendment No. 2 dated June 18, 2019, 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 June 20, 2019).
- 10.5 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)).
- 10.6 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)).
- 10.7 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)).
- 10.8 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)).
- 10.9 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).
- 10.10 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).
- 10.11 Amendment No. 1 dated September 23, 2018, to Term Loan Credit Agreement, dated April 25, 2018 (incorporated by reference to Exhibit 10.3 to NBCUniversal's Current Report on Form 8-K filed on September 24, 2018).
- 10.12 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).
- 10.13 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).
- 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, 2019, filed with the Securities and Exchange Commission on January 30, 2020, 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 30, 2020.

By: /s/ BRIAN L. ROBERTS
Brian L. Roberts
Chairman and 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
<u>/s/ BRIAN L. ROBERTS</u> Brian L. Roberts	Chairman and Chief Executive Officer; Director (Principal Executive Officer)	January 30, 2020
<u>/s/ MICHAEL J. CAVANAGH</u> Michael J. Cavanagh	Senior Executive Vice President and Chief Financial Officer (Principal Financial Officer)	January 30, 2020
<u>/s/ DANIEL C. MURDOCK</u> Daniel C. Murdock	Senior Vice President, Chief Accounting Officer and Controller (Principal Accounting Officer)	January 30, 2020
<u>/s/ KENNETH J. BACON</u> Kenneth J. Bacon	Director	January 30, 2020
<u>/s/ MADELINE S. BELL</u> Madeline S. Bell	Director	January 30, 2020
<u>/s/ SHELDON M. BONOVIKZ</u> Sheldon M. Bonovitz	Director	January 30, 2020
<u>/s/ EDWARD D. BREEN</u> Edward D. Breen	Director	January 30, 2020
<u>/s/ GERALD L. HASSELL</u> Gerald L. Hassell	Director	January 30, 2020
<u>/s/ JEFFREY A. HONICKMAN</u> Jeffrey A. Honickman	Director	January 30, 2020
<u>/s/ MARITZA G. MONTIEL</u> Maritza G. Montiel	Director	January 30, 2020
<u>/s/ ASUKA NAKAHARA</u> Asuka Nakahara	Director	January 30, 2020
<u>/s/ DAVID C. NOVAK</u> David C. Novak	Director	January 30, 2020

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 30, 2020.

NBCUNIVERSAL MEDIA, LLC

By: NBCUNIVERSAL, LLC, its sole member

By: /s/ STEPHEN B. BURKE

Stephen B. Burke
Chairman

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
<u>/s/ BRIAN L. ROBERTS</u> Brian L. Roberts	Principal Executive Officer of NBCUniversal Media, LLC	January 30, 2020
<u>/s/ MICHAEL J. CAVANAGH</u> Michael J. Cavanagh	Principal Financial Officer of NBCUniversal Media, LLC; Director of NBCUniversal, LLC	January 30, 2020
<u>/s/ THOMAS J. REID</u> Thomas J. Reid	Director of NBCUniversal, LLC	January 30, 2020
<u>/s/ DAVID L. COHEN</u> David L. Cohen	Director of NBCUniversal, LLC	January 30, 2020
<u>/s/ DANIEL C. MURDOCK</u> Daniel C. Murdock	Principal Accounting Officer of NBCUniversal Media, LLC	January 30, 2020

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, 2019 and 2018, 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, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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 30, 2020

We have served as the Company’s auditor since 2011.

NBCUniversal Media, LLC
Consolidated Statement of Income

Year ended December 31 (in millions)	2019	2018	2017
Revenue	\$ 34,021	\$ 35,895	\$ 32,950
Costs and Expenses:			
Programming and production	14,462	16,330	14,276
Other operating and administrative	8,123	7,980	7,687
Advertising, marketing and promotion	2,681	2,952	2,806
Depreciation	1,023	1,001	994
Amortization	1,106	1,107	1,047
Other operating gains	—	(141)	(337)
Total costs and expenses	27,395	29,229	26,473
Operating income	6,626	6,666	6,477
Interest expense	(738)	(489)	(727)
Investment and other income (loss), net	396	(521)	(144)
Income before income taxes	6,284	5,656	5,606
Income tax expense	(320)	(351)	(392)
Net income	5,964	5,305	5,214
Less: Net income attributable to noncontrolling interests	180	68	134
Net income attributable to NBCUniversal	\$ 5,784	\$ 5,237	\$ 5,080

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Comprehensive Income

Year ended December 31 (in millions)	2019	2018	2017
Net income	\$ 5,964	\$ 5,305	\$ 5,214
Unrealized gains (losses) on marketable securities, net	—	—	(233)
Deferred gains (losses) on cash flow hedges, net	(5)	3	(13)
Employee benefit obligations, net	(53)	14	112
Currency translation adjustments, net	6	(16)	189
Comprehensive income	5,912	5,306	5,269
Less: Net income attributable to noncontrolling interests	180	68	134
Less: Other comprehensive income (loss) attributable to noncontrolling interests	(12)	(41)	81
Comprehensive income attributable to NBCUniversal	\$ 5,744	\$ 5,279	\$ 5,054

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Cash Flows

Year ended December 31 (in millions)	2019	2018	2017
Operating Activities			
Net income	\$ 5,964	\$ 5,305	\$ 5,214
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation, amortization and other operating gains	2,129	1,967	1,704
Net (gain) loss on investment activity and other	120	689	428
Deferred income taxes	(42)	(39)	2
Changes in operating assets and liabilities, net of effects of acquisitions and divestitures:			
Current and noncurrent receivables, net	43	(452)	(594)
Film and television costs, net	(911)	35	(199)
Accounts payable and accrued expenses related to trade creditors	(27)	57	(43)
Other operating assets and liabilities	(58)	341	564
Net cash provided by operating activities	7,218	7,903	7,076
Investing Activities			
Capital expenditures	(2,072)	(1,730)	(1,502)
Cash paid for intangible assets	(285)	(448)	(295)
Note receivable from Comcast	(2,900)	(2,054)	—
Construction of Universal Beijing Resort	(1,116)	(460)	(71)
Acquisitions, net of cash acquired	(211)	(80)	(140)
Proceeds from sales of businesses and investments	464	70	45
Purchases of investments	(1,024)	(587)	(490)
Other	16	(51)	586
Net cash provided by (used in) investing activities	(7,128)	(5,340)	(1,867)
Financing Activities			
Proceeds from borrowings	791	692	3,948
Proceeds from collateralized obligation	5,175	—	—
Repurchases and repayments of debt	(3,778)	(438)	(3,498)
Proceeds from (repayments of) borrowings from Comcast, net	(70)	(1,777)	(872)
Distributions to member	(2,113)	(1,627)	(1,968)
Distributions to noncontrolling interests	(242)	(205)	(209)
Purchase of Universal Studios Japan noncontrolling interests	—	—	(2,299)
Other	127	(121)	79
Net cash provided by (used in) financing activities	(110)	(3,476)	(4,819)
Increase (decrease) in cash, cash equivalents and restricted cash	(20)	(913)	390
Cash, cash equivalents and restricted cash, beginning of year	1,464	2,377	1,987
Cash, cash equivalents and restricted cash, end of year	\$ 1,444	\$ 1,464	\$ 2,377

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Balance Sheet

December 31 (in millions)	2019	2018
Assets		
Current Assets:		
Cash and cash equivalents	\$ 1,424	\$ 1,444
Receivables, net	7,236	7,293
Programming rights	1,545	1,323
Notes receivable from Comcast	3,886	2,054
Other current assets	1,274	1,133
Total current assets	15,365	13,247
Film and television costs	7,956	7,292
Investments	1,560	1,680
Investment securing collateralized obligation	694	—
Note receivable from Comcast	1,069	—
Property and equipment, net	15,751	13,189
Goodwill	24,240	24,118
Intangible assets, net	12,940	13,666
Other noncurrent assets, net	3,473	1,822
Total assets	\$ 83,048	\$ 75,014
Liabilities and Equity		
Current Liabilities:		
Accounts payable and accrued expenses related to trade creditors	\$ 2,209	\$ 1,933
Accrued participations and residuals	1,736	1,808
Program obligations	917	965
Deferred revenue	1,655	1,118
Accrued expenses and other current liabilities	2,300	2,195
Notes payable to Comcast	99	54
Current portion of long-term debt	301	151
Total current liabilities	9,217	8,224
Long-term debt, less current portion	9,709	12,731
Collateralized obligation	5,166	—
Accrued participations, residuals and program obligations	1,570	1,712
Other noncurrent liabilities	6,548	5,177
Commitments and contingencies (Note 14)		
Redeemable noncontrolling interests	452	389
Equity:		
Member's capital	49,040	45,618
Accumulated other comprehensive income (loss)	214	254
Total NBCUniversal member's equity	49,254	45,872
Noncontrolling interests	1,132	909
Total equity	50,386	46,781
Total liabilities and equity	\$ 83,048	\$ 75,014

See accompanying notes to consolidated financial statements.

NBCUniversal Media, LLC
Consolidated Statement of Changes in Equity

(in millions)	2019	2018	2017
Redeemable Noncontrolling Interests			
Balance, beginning of year	\$ 389	\$ 409	\$ 530
Contributions from (distributions to) noncontrolling interests, net	(59)	(52)	(65)
Other	4	(4)	(84)
Net income (loss)	118	36	28
Balance, end of year	\$ 452	\$ 389	\$ 409
Member's Capital			
Balance, beginning of year	\$ 45,618	\$ 42,148	\$ 38,894
Cumulative effects of adoption of accounting standards	—	(232)	—
Distributions to member	(2,362)	(1,627)	(1,968)
Contributions from member	—	—	662
Purchase of Universal Studios Japan noncontrolling interests	—	—	(704)
Other	—	92	184
Net income (loss)	5,784	5,237	5,080
Balance, end of year	\$ 49,040	\$ 45,618	\$ 42,148
Accumulated Other Comprehensive Income (Loss)			
Balance, beginning of year	\$ 254	\$ (20)	\$ (135)
Cumulative effects of adoption of accounting standards	—	232	—
Other comprehensive income (loss)	(40)	42	(26)
Purchase of Universal Studios Japan noncontrolling interests	—	—	141
Balance, end of year	\$ 214	\$ 254	\$ (20)
Noncontrolling Interests			
Balance, beginning of year	\$ 909	\$ 913	\$ 2,116
Contributions from (distributions to) noncontrolling interests, net	189	299	(120)
Other comprehensive income (loss)	(12)	(41)	81
Purchase of Universal Studios Japan noncontrolling interests	—	—	(1,736)
Other	(16)	(294)	466
Net income (loss)	62	32	106
Balance, end of year	\$ 1,132	\$ 909	\$ 913
Total equity	\$ 50,386	\$ 46,781	\$ 43,041

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)
- valuation and impairment testing of 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. The collateralized obligation related to our investment in Hulu, LLC (“Hulu”) is discussed in Note 9 and our other long-term debt is discussed in Note 6. 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.

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. The levels of the hierarchy are described below.

NBCUniversal Media, LLC

- 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 instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets
- Level 3: Values are determined using 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.

Note 2: Segment Information

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, we are developing a theme park in Beijing, China along with a consortium of Chinese state-owned companies, and an additional theme park in Orlando, Florida.

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. 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 ^(c)	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2019					
Cable Networks	\$ 11,513	\$ 4,444	\$ 735	\$ 41	\$ 17
Broadcast Television	10,261	1,730	157	161	15
Filmed Entertainment	6,493	833	79	21	22
Theme Parks	5,933	2,455	696	1,605	60
Headquarters and Other ^(a)	142	(706)	462	244	171
Eliminations ^(b)	(321)	(1)	—	—	—
Total	\$ 34,021	\$ 8,755	\$ 2,129	\$ 2,072	\$ 285

NBCUniversal Media, LLC

(in millions)	Revenue	Adjusted EBITDA ^(c)	Depreciation and Amortization	Capital Expenditures	Cash Paid for Intangible Assets
2018					
Cable Networks ^(d)	\$ 11,773	\$ 4,428	\$ 738	\$ 42	\$ 23
Broadcast Television ^(d)	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 ^(a)	212	(645)	419	306	146
Eliminations ^{(b)(d)}	(364)	4	—	—	—
Total	\$ 35,895	\$ 8,633	\$ 2,108	\$ 1,730	\$ 448

(in millions)	Revenue	Adjusted EBITDA ^(c)	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 ^(a)	179	(779)	396	271	153
Eliminations ^(b)	(327)	(4)	—	—	—
Total	\$ 32,950	\$ 8,181	\$ 2,041	\$ 1,502	\$ 295

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

(b) Included in Eliminations are transactions that our segments enter into with one another, which consisted primarily of the licensing of film and television content from Filmed Entertainment and Broadcast Television to Cable Networks; for segment reporting, this revenue is recognized as the programming rights asset for the licensed content is amortized based on third-party revenue.

(c) 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, 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)	2019	2018	2017
Adjusted EBITDA	\$ 8,755	\$ 8,633	\$ 8,181
Depreciation	(1,023)	(1,001)	(994)
Amortization	(1,106)	(1,107)	(1,047)
Other operating gains	—	141	337
Interest expense	(738)	(489)	(727)
Investment and other income (loss), net	396	(521)	(144)
Income before income taxes	\$ 6,284	\$ 5,656	\$ 5,606

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

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Note 3: Revenue

Year ended December 31 (in millions)	2019	2018	2017
Distribution	\$ 6,790	\$ 6,826	\$ 6,081
Advertising	3,478	3,587	3,359
Content licensing and other	1,245	1,360	1,057
Total Cable Networks	11,513	11,773	10,497
Advertising	5,712	7,010	5,654
Content licensing	2,157	2,182	2,114
Distribution and other	2,392	2,247	1,795
Total Broadcast Television	10,261	11,439	9,563
Theatrical	1,469	2,111	2,192
Content licensing	3,045	2,899	2,956
Home entertainment	957	1,048	1,287
Other	1,022	1,094	1,160
Total Filmed Entertainment	6,493	7,152	7,595
Total Theme Parks	5,933	5,683	5,443
Headquarters and Other	142	212	179
Eliminations ^(a)	(321)	(364)	(327)
Total NBCUniversal	\$ 34,021	\$ 35,895	\$ 32,950

(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)	2019	2018	2017
United States	\$ 27,002	\$ 28,309	\$ 25,303
Foreign	7,019	7,586	7,647
Total revenue	\$ 34,021	\$ 35,895	\$ 32,950

Distribution

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

These arrangements are accounted for as licenses of functional intellectual property and revenue 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 60 days.

Advertising

Cable Networks and Broadcast Television generate 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. 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.

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Theatrical

Filmed Entertainment generates revenue from the worldwide theatrical release of 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 when films are released. We recognize revenue as the films are viewed and exhibited in theaters and payment generally occurs within 30 days after exhibition.

Content Licensing

Cable Networks, Broadcast Television and Filmed Entertainment 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 agreements generally include fixed pricing and span multiple years. For example, following a film's theatrical release, Filmed Entertainment 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 at any given time equals approximately 1 to 2 years of annual Filmed Entertainment content licensing revenue, which is the segment with the largest portion of this future 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 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 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

Filmed Entertainment 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. Cable Networks and Broadcast Television 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

Theme Parks generates revenue primarily from guest spending at our Universal theme parks in Orlando, Florida; Hollywood, California; and Osaka, Japan. Guest spending includes ticket sales and in-park spending on food, beverages and merchandise. We recognize revenue from 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 in-park 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)	2019	2018
Receivables, gross	\$ 7,336	\$ 7,392
Less: Allowance for doubtful accounts	100	99
Receivables, net	\$ 7,236	\$ 7,293
December 31 (in millions)	2019	2018
Noncurrent receivables (included in other noncurrent assets, net)	\$ 1,146	\$ 1,180
Noncurrent deferred revenue (included in other noncurrent liabilities)	\$ 394	\$ 481

Note 4: Film and Television Costs

December 31 (in millions)	2019	2018
Film Costs:		
Released, less amortization	\$ 1,546	\$ 1,600
Completed, not released	187	144
In production and in development	1,314	1,063
	3,047	2,807
Television Costs:		
Released, less amortization	2,706	2,161
In production and in development	1,162	953
	3,868	3,114
Programming rights, less amortization	2,586	2,694
	9,501	8,615
Less: Current portion of programming rights	1,545	1,323
Film and television costs	\$ 7,956	\$ 7,292

Based on our current estimates of the total remaining revenue from all sources ("ultimate revenue"), in 2020 we expect to amortize approximately \$1.9 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 2022, we expect to amortize approximately 88% of unamortized film and television costs for our released productions, excluding amounts allocated to acquired libraries.

As of December 31, 2019, acquired film and television libraries, which are included within the "released, less amortization" captions in the table above, had remaining unamortized costs of \$328 million. These costs are generally amortized over a period not to exceed 20 years, and approximately 47% of these costs are expected to be amortized through 2022.

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 rights for content that we license but do not own 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 recognize the costs of multiyear, live-event sports programming rights as the rights are utilized over the contract term based on estimated relative value. Estimated relative value is generally based

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on the ratio of the current period revenue to the estimated ultimate revenue or the terms of the contract. Advance payments for rights to multiyear, live-event sports programming are included in programming rights.

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 Cable Networks is primarily tested on a channel basis for impairment, whereas programming acquired by Broadcast Television 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)	2019	2018	2017
Foreign			
Current income tax expense	\$ (184)	\$ (230)	\$ (201)
Deferred income tax expense	44	31	7
Withholding tax expense	(145)	(163)	(187)
U.S. domestic tax expense	(35)	11	(11)
Income tax expense	\$ (320)	\$ (351)	\$ (392)

We are a limited liability company and are 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, 2019 and 2018 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.

The liabilities for uncertain tax positions included in our consolidated balance sheet were not material as of December 31, 2019 and 2018. 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.

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Note 6: Long-Term Debt

Long-Term Debt Outstanding

December 31 (in millions)	Weighted-Average Interest Rate as of December 31, 2019	2019 ^(a)	2018 ^(a)
Term loans	2.04%	\$ 3,740	\$ 4,122
Senior notes with maturities of 5 years or less, at face value	3.88%	3,000	5,000
Senior notes with maturities between 5 and 10 years, at face value	—	—	—
Senior notes with maturities greater than 10 years, at face value	5.50%	2,759	2,759
Notes due 2049 to Comcast	—	—	610
Other, including capital lease obligations	—	544	427
Debt issuance costs, premiums and discounts, net	—	(33)	(36)
Total debt	3.59%	10,010	12,882
Less: Current portion		301	151
Long-term debt		\$ 9,709	\$ 12,731

(a) As of December 31, 2019, included in our outstanding debt were foreign currency denominated borrowings with principal amounts of ¥284 billion and ¥9 billion RMB. As of December 31, 2018, included in our outstanding debt were foreign currency denominated borrowings with principal amounts of ¥400 billion and ¥4 billion RMB.

As of December 31, 2019 and 2018, our debt, excluding our revolving credit agreement with Comcast, had an estimated fair value of \$11.0 billion and \$13.2 billion, respectively. The estimated fair value of our publicly traded debt was primarily based on level 1 inputs that use quoted market value 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)	
2020	\$ 303
2021	\$ 2,383
2022	\$ 2,031
2023	\$ 1,021
2024	\$ 15
Thereafter	\$ 4,290

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 2022. As of December 31, 2019, \$82.5 billion principal amount of outstanding debt securities 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 \$1.5 billion outstanding debt securities, including its senior notes, revolving credit facility, 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 loan is not guaranteed.

Note 7: Significant Transactions

2018

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 ("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 \$3.8 billion). The debt financing is secured by the assets of Universal Beijing Resort and the equity interests of the investors. As of December 31, 2019, Universal Beijing Resort had \$1.3 billion principal amount of a term loan outstanding under the debt 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. Our consolidated statement of cash flows includes the costs of construction and related borrowings in the "construction of Universal Beijing Resort" and "proceeds from borrowings" captions, respectively, and equity contributions from the noncontrolling interests are included in other financing activities.

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, 2019, our consolidated balance sheet included assets, primarily property and equipment, and liabilities, including the term loan, of Universal Beijing Resort totaling \$3.0 billion and \$2.1 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.

Note 8: Recent Accounting Pronouncements

Leases

In February 2016, the FASB updated the accounting guidance related to leases. The most significant change in the updated accounting guidance requires lessees to recognize lease assets and liabilities on the balance sheet for all operating leases with the exception of short-term leases. The standard also expands the disclosures regarding the amount, timing and uncertainty of cash flows arising from leases. For a lessee, the recognition, measurement and presentation of expenses and cash flows arising from a lease did not significantly change from previous guidance. We adopted the updated guidance on January 1, 2019 on a prospective basis and as a result, prior period amounts were not adjusted to reflect the impacts of the updated guidance. In addition, as permitted under the transition guidance within the new standard, prior scoping and classification conclusions were carried forward for leases existing as of the adoption date.

Upon adoption, we recorded \$1.7 billion and \$1.8 billion for operating lease assets and liabilities, respectively, which includes the impact of fair value adjustments, prepaid and deferred rent and lease incentives. The adoption of the updated accounting guidance did not significantly impact our recognition of finance leases, which were previously described as capital leases. As of the date of adoption, our liabilities for finance leases were \$332 million which were recorded in long-term debt, and the related assets were recorded in property and equipment, net. Our finance leases were not considered material for further disclosure. The adoption of the new accounting guidance did not have a material impact on our consolidated results of operations or cash flows. See Note 14 for further information.

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Film and Television Costs

In March 2019, the FASB updated the accounting guidance related to film and television costs. The updated guidance aligns the accounting for production costs of episodic television series with those of films, allowing for costs to be capitalized in excess of amounts of revenue contracted for each episode. The updated guidance also updates certain presentation and disclosure requirements for capitalized film and television costs and requires impairment testing to be performed at a group level for capitalized film and television costs when the content is predominantly monetized with other owned or licensed content. We will adopt the updated accounting guidance prospectively in the first quarter of 2020. Following adoption, we will present all film and television costs, including capitalized costs of acquired programming rights, as noncurrent assets in the consolidated balance sheet. We do not expect the updated accounting guidance to have a material impact on our consolidated results of operations or financial position.

Credit Losses

In June 2016, the FASB updated the accounting guidance related to the measurement of credit losses on financial instruments, including trade receivables and loans. The updated guidance requires the recognition of credit losses on financial instruments based on an estimate of expected losses, replacing the incurred loss model in the prior guidance. We will adopt the updated accounting guidance prospectively in the first quarter of 2020. We do not expect the updated accounting guidance to have a material impact on our consolidated results of operations or financial position.

Note 9: Investments

Investment and Other Income (Loss), Net			
Year ended December 31 (in millions)	2019	2018	2017
Equity in net income (losses) of investees, net	\$ (402)	\$ (371)	\$ (201)
Realized and unrealized gains (losses) on equity securities, net	466	(217)	—
Other income (loss), net	332	67	57
Investment and other income (loss), net	\$ 396	\$ (521)	\$ (144)

Investments			
December 31 (in millions)	2019	2018	
Equity method	\$ 1,156	\$ 707	
Marketable equity securities	295	162	
Nonmarketable equity securities	804	811	
Total investments	2,255	1,680	
Less: Current investments	1	—	
Less: Investment securing collateralized obligation	694	—	
Noncurrent investments	\$ 1,560	\$ 1,680	

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 partnership or limited liability company interest in an entity with specific ownership accounts, unless we have virtually no influence over the investee's operating and financial policies. Equity method investments are recorded at cost and are adjusted to recognize (1) our share, based on percentage ownership or other contractual basis, 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 and Collateralized Obligation

In May 2019, we entered into a series of agreements (the "Hulu Transaction") with The Walt Disney Company and certain of its subsidiaries ("Disney"), whereby we relinquished our board seats and substantially all voting rights associated with our investment in Hulu, and Disney assumed full operational control. We also acquired our proportionate share of the approximate 10% interest in Hulu previously held by AT&T Inc. ("AT&T") for approximately \$477 million, increasing our ownership interest to approximately 33% from approximately 30%.

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Following the Hulu Transaction, future capital calls are limited to \$1.5 billion in the aggregate each year, with any excess funding requirements funded with member loans. We have the right, but not the obligation, to fund our proportionate share of these capital calls, and if we elect not to fund our share of future equity capital calls, our ownership interest will be diluted, subject to an ownership floor of 21%. The Hulu Transaction agreements include put and call provisions regarding our ownership interest in Hulu, pursuant to which, as early as January 2024, we can require Disney to buy, and Disney can require us to sell our interest, in either case, for fair value at that future time subject to a minimum equity value of \$27.5 billion for 100% of the equity of Hulu. The minimum total equity value and ownership floor guarantee minimum proceeds of approximately \$5.8 billion upon exercise of the put or call.

In connection with the Hulu Transaction, we agreed to extend certain licenses of NBCUniversal content until late 2024. We can terminate most of our content license agreements with Hulu beginning in 2022, and beginning in 2020, we have the right to modify certain content licenses that are currently exclusive to Hulu, so that we can exhibit the content on our platforms in return for reducing the license fee.

In August 2019, we entered into a financing arrangement with a syndicate of banks whereby we received proceeds of \$5.2 billion under a term loan facility due March 2024. The principal amount of the term loan is secured by the proceeds guaranteed by Disney under the put/call provisions related to our investment in Hulu. The proceeds from the put/call provisions are available only for the repayment of the term loan and are not available to us unless and until the bank lenders are fully paid under the term loan provisions. The bank lenders have no rights to proceeds from the put/call provisions in excess of amounts owed under the term loan. As a result of this transaction, we now present our investment in Hulu and the term loan separately in our consolidated balance sheet in the captions "investment securing collateralized obligation" and "collateralized obligation", respectively. The recorded value of our investment reflects our historical cost in applying the equity method, and as a result, is less than its fair value. As of December 31, 2019, our collateralized obligation had a carrying value of \$5.2 billion and an estimated fair value of \$5.2 billion. The estimated fair value was based on level 2 inputs that use interest rates for debt with similar terms and remaining maturities.

We account for our investment using the equity method. In 2019, 2018 and 2017, we recognized losses of \$473 million, \$454 million and \$276 million, respectively, in equity in net income (losses) of investees, net. In 2019, 2018 and 2017, we made cash capital contributions totaling \$903 million, inclusive of the funding for the acquisition of the AT&T interest, \$454 million and \$300 million, respectively, to Hulu. As of December 31, 2019 and 2018, our investment was \$694 million and \$248 million, respectively.

In August 2016, Time Warner Inc., which was acquired by AT&T in 2018, acquired a 10% interest in Hulu, diluting our interest at that time from approximately 33% to approximately 30%. Given the contingent nature of put and call options related to that interest, we recorded a deferred gain as a result of the dilution. In the first quarter of 2019, the put and call options expired unexercised and we recognized the previously deferred gain of \$159 million in other income (loss), net.

Marketable Equity Securities

We classify 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 and was classified as a marketable equity security. We sold our investment in 2019. We recognized gains of \$293 million and losses of \$268 million in 2019 and 2018, respectively. As of December 31, 2018, our investment was \$162 million.

Peloton

In 2019, we recognized unrealized gains of \$184 million which included unrealized gains as a result of Peloton's initial public offering in September 2019. Following the initial public offering, we now present our investment in marketable equity securities, which was previously presented in non-marketable equity securities. As of December 31, 2019 and 2018, our investment was \$294 million and \$110 million, respectively.

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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, 2019	2019	2018
Buildings and leasehold improvements	31 years	\$ 9,438	\$ 8,877
Furniture, fixtures and equipment	12 years	6,049	5,501
Construction in process	N/A	4,884	2,676
Land	N/A	1,179	1,129
Property and equipment, at cost		21,550	18,183
Less: Accumulated depreciation		5,799	4,994
Property and equipment, net		\$ 15,751	\$ 13,189

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. Capital expenditures for the construction of Universal Beijing Resort are presented separately in our consolidated statement of cash flows.

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, 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
Acquisitions	162	14	—	—	176
Dispositions	—	—	—	—	—
Adjustments	(105)	—	1	—	(104)
Foreign currency translation	(2)	—	(3)	55	50
Balance, December 31, 2019	\$ 13,462	\$ 857	\$ 3,182	\$ 6,739	\$ 24,240

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

December 31 (in millions)	Weighted-Average Original Useful Life as of December 31, 2019	2019		2018		
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization	
Finite-Lived Intangible Assets:						
Customer relationships	19 years	\$ 13,261	\$ (6,929)	\$ 13,269	\$ (6,283)	
Software	5 years	2,088	(1,205)	1,779	(932)	
Other	19 years	3,711	(1,525)	3,619	(1,375)	
Indefinite-Lived Intangible Assets:						
Trade names	N/A	2,927		2,981		
FCC licenses	N/A	612		608		
Total		\$ 22,599	\$ (9,659)	\$ 22,256	\$ (8,590)	

NBCUniversal Media, LLC

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)		
2020	\$	1,099
2021	\$	1,006
2022	\$	914
2023	\$	876
2024	\$	847

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)	2019	2018	2017
Benefit obligation	\$ 858	\$ 719	\$ 621
Interest expense	\$ 99	\$ 58	\$ 64

Certain members of management participate in Comcast's unfunded, nonqualified deferred compensation plans as well as similar plans sponsored by us. 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. Participants are eligible to receive distributions from their account based on elected deferral periods that are consistent with the plans and applicable tax law.

NBCUniversal Media, LLC

Pension and Postretirement Benefit 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 2019, 2018 and 2017, expenses related to these plans totaled \$229 million, \$213 million and \$201 million, respectively.

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 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. We sponsor various nonqualified defined benefit pension plans for domestic employees. The future benefits for these plans have been frozen since the beginning of 2013. 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 plans are all unfunded and not material.

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. 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. In 2019, 2018 and 2017, the total contributions we made to multiemployer benefit plans were not material.

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 2019, 2018 and 2017, we recorded severance costs of \$125 million, \$146 million and \$108 million, respectively.

Note 13: Supplemental Financial Information

Cash Payments for Interest and Income Taxes

Year ended December 31 (in millions)	2019	2018	2017
Interest	\$ 440	\$ 408	\$ 517
Income taxes	\$ 356	\$ 430	\$ 282

Noncash Activities

During 2019:

- we acquired \$866 million of property and equipment and intangible assets that were accrued but unpaid

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)

NBCUniversal Media, LLC

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)	2019	2018
Cash and cash equivalents	\$ 1,424	\$ 1,444
Restricted cash included in other noncurrent assets, net	20	20
Cash, cash equivalents and restricted cash, end of year	\$ 1,444	\$ 1,464

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.

December 31 (in millions)	2019	2018
Accumulated Other Comprehensive Income (Loss)		
Deferred gains (losses) on cash flow hedges	\$ 7	\$ 12
Unrecognized gains (losses) on employee benefit obligations	87	140
Cumulative translation adjustments	120	102
Accumulated other comprehensive income (loss)	\$ 214	\$ 254

Note 14: Commitments and Contingencies

Programming and Talent 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, 2019, the total number of employees covered by collective bargaining agreements was 9,400 full-time equivalent employees. Approximately, 12% of these full-time equivalent employees were covered by collective bargaining agreements that have expired or are scheduled to expire during 2020.

The table below summarizes our minimum annual programming and talent commitments. Programming and talent commitments include acquired film and television programming, 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, 2019 (in millions)	Programming and Talent Commitments
2020	\$ 7,179
2021	\$ 4,655
2022	\$ 4,813
2023	\$ 2,609
2024	\$ 3,555
Thereafter	\$ 13,317

Leases

Our leases consist primarily of real estate, vehicles and other equipment. We determine if an arrangement is a lease at inception. Lease assets and liabilities are recognized upon commencement of the lease based on the present value of the future minimum lease payments over the lease term. The lease term includes options to extend the lease when it is reasonably certain that we will exercise that option. We generally utilize our incremental borrowing rate based on information available at the commencement of the lease in determining the present value of future payments. The lease asset also includes any lease payments made and initial direct costs incurred and excludes lease incentives. Lease assets and liabilities are not recorded for leases with an initial term of one year or less. Lease expense for operating leases recorded in the balance sheet is included in operating costs and expenses and is based on the future minimum lease payments recognized on a straight-line basis over the term of the lease plus any variable lease costs. Operating lease expenses, inclusive of short-term and variable lease expenses, recognized in our consolidated statement of income for the period ended December 31, 2019 was \$443 million. This amount does not include lease costs associated with production activities or other amounts capitalized in our consolidated balance sheet, which are not material.

NBCUniversal Media, LLC

The table below summarizes the operating lease assets and liabilities recorded in our consolidated balance sheet.

Consolidated Balance Sheet

(in millions)	December 31, 2019
Other noncurrent assets, net	\$ 1,551
Accrued expenses and other current liabilities	\$ 189
Other noncurrent liabilities	\$ 1,481

The table below summarizes our future minimum lease commitments for operating leases as of December 31, 2019 applying the new guidance.

(in millions)	December 31, 2019
2020	\$ 256
2021	224
2022	186
2023	161
2024	146
Thereafter	1,335
Total future minimum lease payments	2,308
Less: imputed interest	638
Total liability	\$ 1,670

The weighted average remaining lease term for operating leases and the weighted average discount rate used to calculate our operating lease liabilities as of December 31, 2019 were 15 years and 4.06%, respectively.

In 2019, cash payments for operating leases recorded in the consolidated balance sheet were \$271 million. Leases that have not yet commenced and lease assets and liabilities associated with leases entered into during the year were not material.

The tables below summarize our future minimum rental commitments for operating leases as of December 31, 2018 and rent expense for operating leases using the accounting guidance in effect at that time.

(in millions)	December 31, 2018
2019	\$ 248
2020	\$ 232
2021	\$ 199
2022	\$ 168
2023	\$ 144
Thereafter	\$ 1,380

Year ended December 31 (in millions)	2018	2017
Rental expense	\$ 286	\$ 274

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, 2019, our carrying value was \$1.1 billion, and the estimated value of the contractual obligation was \$1.8 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.

As part of the Comcast cash management process, we and Comcast have a revolving credit agreement with a maturity date of 2026 that allows us to borrow from Comcast and for Comcast to borrow from us up to \$5 billion. 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 "notes payable to Comcast" and "notes 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.

In 2019, using a portion of the proceeds from a collateralized obligation, we issued \$1.3 billion of non-interest bearing notes due 2024 to Comcast, repaid \$1.0 billion under our revolving credit agreement with Comcast, and repaid the \$610 million 4.00% notes due 2049 to Comcast. The early redemption of the notes due to Comcast were accounted for as a debt extinguishment, resulting in a charge of \$178 million to interest expense in the third quarter of 2019.

In October 2017, we and Comcast completed a debt exchange transaction. Comcast issued new senior notes 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. 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.

Comcast is also the counterparty to one of our contractual obligations. As of both December 31, 2019 and 2018, the carrying value of the liability associated with this contractual obligation was \$383 million.

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)	2019	2018	2017
Transactions with Comcast and Consolidated Subsidiaries			
Revenue	\$ 2,398	\$ 2,156	\$ 1,837
Total costs and expenses	\$ (287)	\$ (245)	\$ (214)
Interest expense and investment and other income (loss), net	\$ (133)	\$ (54)	\$ (250)

Consolidated Balance Sheet

December 31 (in millions)	2019	2018
Transactions with Comcast and Consolidated Subsidiaries		
Receivables, net	\$ 492	\$ 464
Other current assets	\$ 46	\$ —
Notes receivable from Comcast, current	\$ 3,886	\$ 2,054
Film and television costs	\$ 26	\$ 27
Note receivable from Comcast, noncurrent	\$ 1,069	\$ —
Other noncurrent assets, net	\$ 70	\$ —
Accounts payable and accrued expenses related to trade creditors	\$ 84	\$ 78
Accrued expenses and other current liabilities	\$ 108	\$ 32
Notes payable to Comcast	\$ 99	\$ 54
Long-term debt (See Note 6)	\$ 156	\$ 701
Other noncurrent liabilities	\$ 454	\$ 410

NBCUniversal Media, LLC

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 2019, 2018 and 2017, we recognized share-based compensation expense of \$188 million, \$151 million and \$133 million, respectively. As of December 31, 2019, we had unrecognized pretax compensation expense of \$308 million related to nonvested Comcast RSUs and unrecognized pretax compensation expense of \$13 million related to nonvested Comcast stock options that will be recognized over a weighted-average period of approximately 1.5 years and 0.7 years, respectively.

Report of Independent Registered Public Accounting Firm

**To the Board of Directors and Shareholders 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, 2019 and 2018, and for each of the three years in the period ended December 31, 2019, and the Company's internal control over financial reporting as of December 31, 2019, and have issued our report thereon dated January 30, 2020; 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 30, 2020

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, 2019 and 2018, and for each of the three years in the period ended December 31, 2019, and have issued our report thereon dated January 30, 2020; 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 30, 2020

Comcast Corporation
Schedule II – Valuation and Qualifying Accounts
Year ended December 31, 2019, 2018 and 2017

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
2019				
Allowance for doubtful accounts	\$ 352	\$ 769	\$ 702	\$ 419
Valuation allowance on deferred tax assets	632	1,403	129	1,906
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

NBCUniversal Media, LLC
Schedule II – Valuation and Qualifying Accounts
Year ended December 31, 2019, 2018 and 2017

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
2019				
Allowance for doubtful accounts	\$ 99	\$ 48	\$ 47	\$ 100
Valuation allowance on deferred tax assets	73	36	15	94
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

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statements on Form S-8 (Nos. 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, 333-224455, 333-224456 and 333-232416) and Form S-3 (No. 333-232941) of our reports dated January 30, 2020, relating to the consolidated financial statements and the 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, 2019.

/S/ DELOITTE & TOUCHE LLP

Philadelphia, Pennsylvania
January 30, 2020

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. 333-232941-02) of our reports dated January 30, 2020, 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, 2019.

/S/ DELOITTE & TOUCHE LLP

New York, New York
January 30, 2020

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 30, 2020

/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 30, 2020

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Chief Financial Officer

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 30, 2020

/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 30, 2020

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Principal Financial Officer

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT

January 30, 2020

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

CERTIFICATION PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT

January 30, 2020

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:

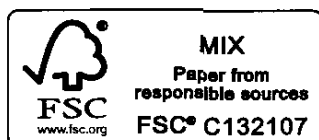
1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of NBCUniversal Media, LLC.

/s/ BRIAN L. ROBERTS

Name: Brian L. Roberts
Title: Principal Executive Officer

/s/ MICHAEL J. CAVANAGH

Name: Michael J. Cavanagh
Title: Principal Financial Officer



SKU 10K-19