Consolidated Financial Statements
December 31, 2018

CABLE & WIRELESS COMMUNICATIONS LIMITED
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CABLE & WIRELESS COMMUNICATIONS LIMITED

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Forward-looking Statements

Certain statements in this annual report constitute forward-looking statements. To the extent that statements in this annual report are not recitations of historical fact, such statements constitute forward-looking statements, which, by definition, involve risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. In particular, statements under *Management's Discussion and Analysis of Financial Condition and Results of Operations* may contain forward-looking statements, including statements regarding: our business, product, foreign currency and finance strategies in 2019; our property and equipment additions in 2019; subscriber growth and retention rates; changes in competitive, regulatory and economic factors; the timing and impacts of proposed transactions; anticipated changes in our revenue, costs or growth rates; our liquidity; credit risks; foreign currency risks; compliance with debt, financial and other covenants; our future projected contractual commitments and cash flows; and other information and statements that are not historical fact. Where, in any forward-looking statement, we express an expectation or belief as to future results or events, such expectation or belief is expressed in good faith and believed to have a reasonable basis, but there can be no assurance that the expectation or belief will result or be achieved or accomplished. In evaluating these statements, you should consider the following list of some but not all of the factors that could cause actual results or events to differ materially from anticipated results or events:

- economic and business conditions and industry trends in the countries in which we operate;
- the competitive environment in the industries in the countries in which we operate, including competitor responses to our products and services;
- fluctuations in currency exchange rates, inflation rates and interest rates;
- instability in global financial markets, including sovereign debt issues and related fiscal reforms;
- consumer disposable income and spending levels, including the availability and amount of individual consumer debt;
- changes in consumer viewing preferences and habits, including on mobile devices that function on various operating systems and specifications, limited bandwidth, and different processing power and screen sizes;
- customer acceptance of our existing service offerings, including our video, broadband internet, fixed-line telephony, mobile and business service offerings, and of new technology, programming alternatives and other products and services that we may offer in the future;
- our ability to manage rapid technological changes;
- the impact of 5G and wireless technologies on broadband internet;
- our ability to maintain or increase the number of subscriptions to our video, broadband internet, fixed-line telephony and mobile service offerings and our average revenue per household;
- our ability to provide satisfactory customer service, including support for new and evolving products and services;
- our ability to maintain or increase rates to our subscribers or to pass through increased costs to our subscribers;
- the impact of our future financial performance, or market conditions generally, on the availability, terms and deployment of capital;
- changes in, or failure or inability to comply with, government regulations in the countries in which we operate and adverse outcomes from regulatory proceedings;
- government intervention that requires opening our broadband distribution networks to competitors;
- our ability to obtain regulatory approval and satisfy other conditions necessary to close acquisitions and dispositions, and the impact of conditions imposed by competition and other regulatory authorities in connection with acquisitions;
- our ability to successfully acquire new businesses and, if acquired, to integrate, realize anticipated efficiencies from and implement our business plan with respect to the businesses we have acquired or that we expect to acquire;
- changes in laws or treaties relating to taxation, or the interpretation thereof, in the United Kingdom or in other countries in which we operate;

- changes in laws and government regulations that may impact the availability and cost of capital and the derivative instruments that hedge certain of our financial risks;
- the ability of suppliers and vendors, including third-party channel providers and broadcasters, to timely deliver quality products, equipment, software, services and access;
- the availability of attractive programming for our video services and the costs associated with such programming, including retransmission and copyright fees payable to public and private broadcasters;
- uncertainties inherent in the development and integration of new business lines and business strategies;
- our ability to adequately forecast and plan future network requirements, including the costs and benefits associated with our network extension and upgrade programs;
- the availability of capital for the acquisition and/or development of telecommunications networks and services, including property and equipment additions;
- problems we may discover post-closing with the operations, including the internal controls and financial reporting process, of businesses we acquire;
- cybersecurity threats or other security breaches, including the leakage of sensitive customer data, which could harm our business or reputation;
- the outcome of any pending or threatened litigation;
- the loss of key employees and the availability of qualified personnel;
- changes in the nature of key strategic relationships with partners and joint venturers;
- changes in and compliance with applicable data privacy laws, rules, and regulations;
- our ability to recoup insurance reimbursements and settlements from third-party providers;
- our ability to comply with economic and trade sanctions laws, such as the U.S. Treasury Department's Office of Foreign Assets Control; and
- events that are outside of our control, such as political unrest in international markets, terrorist attacks, malicious human acts, hurricanes and other natural disasters, pandemics and other similar events.

The broadband distribution and mobile service industries are changing rapidly and, therefore, the forward-looking statements of expectations, plans and intent in this annual report are subject to a significant degree of risk. These forward-looking statements and the above described risks, uncertainties and other factors speak only as of the date of this annual report, and we expressly disclaim any obligation or undertaking to disseminate any updates or revisions to any forward-looking statement contained herein, to reflect any change in our expectations with regard thereto, or any other change in events, conditions or circumstances on which any such statement is based. Readers are cautioned not to place undue reliance on any forward-looking statement.

DESCRIPTION OF OUR BUSINESS

In this section, unless the context otherwise requires, the terms "we," "our," "our company" and "us" may refer, as the context requires, to C&W or collectively to C&W and its subsidiaries. C&W is a wholly-owned subsidiary of Liberty Latin America Ltd. Unless otherwise indicated, operational and statistical data, including subscriber statistics, are as of December 31, 2018. The capitalized terms used in this section are defined in the consolidated financial statements, the notes thereto and Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

We are a leading telecommunications company with operations predominantly in the Caribbean and Latin America. The communications and entertainment services that we deliver to our residential and business customers include video, broadband internet, telephony and mobile services. In most of our operating footprint, we offer a "triple-play" of bundled services of digital video, internet and telephony in one subscription. We are also focused on leveraging our full-service product suite to deliver fixed-mobile convergence offerings. Available fixed service offerings depend on the bandwidth capacity of a particular system and whether it has been upgraded for two-way communications.

Our business products and services also include enterprise-grade connectivity, data center, hosting and managed solutions, as well as IT solutions with customers ranging from small and medium enterprises to international companies and governmental agencies. We also operate an extensive subsea and terrestrial fiber optic cable network that connects over 40 markets in the region, providing connectivity solutions both within and outside our operating footprint.

We are the largest fixed-line provider of high-speed broadband and video services across a number of our markets, including Jamaica and Trinidad and Tobago. In addition, we offer mobile services throughout most of our operating footprint. We are a mobile network operator in Panama and most of our Caribbean markets, including the Bahamas and Jamaica. As a network provider, we are able to offer a full range of voice and data services, including value-added, data-based and fixed-mobile converged services. For a breakdown of revenue by major category, see note 18 to our consolidated financial statements.

We have expanded our footprint through new build projects and strategic acquisitions. Our new build projects consist of network programs pursuant to which we pass additional homes and businesses with our broadband communications network. We are also upgrading networks. During 2018, we passed or upgraded approximately 165,000 additional homes and commercial premises.

Our operations are provided through various consolidated subsidiaries, including the following subsidiaries where we own less than 100%: Cable & Wireless Panama, S.A. (a 49.0%-owned entity that owns most of our operations in Panama); The Bahamas Telecommunications Company Limited (a 49.0%-owned entity that owns all of our operations in the Bahamas); and Cable & Wireless Jamaica Limited (a 92.3%-owned entity that owns the majority of our operations in Jamaica).

Our operating brands include the following:

Developments in the Business

In September 2017, Hurricanes Irma and Maria impacted a number of our markets in the Caribbean, resulting in varying degrees of damage to homes, businesses and infrastructure in these markets, most notably in the British Virgin Islands and Dominica. In October 2016, our operations in the Bahamas were significantly impacted by Hurricane Matthew. In December 2018, we settled our insurance claims associated with these hurricanes with our third-party insurance provider. The settlement amount totaled $47 million and comprised $35 million for Hurricanes Irma and Maria, which was net of $21 million in self-insurance, and $12 million for Hurricane Matthew, which was net of $15 million in self-insurance. For information regarding the impacts of Hurricanes Irma and Maria, see *Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview—Hurricane Impact Update* included below.

Operating Data

The following tables present certain operating data as of December 31, 2018. The tables reflect 100% of the data applicable to each of our subsidiaries, regardless of our ownership percentage. For additional information regarding terms used in the following tables, see the *Operating Data Glossary* below.

	Homes Passed	Two-way Homes Passed	Customer Relationships	Total RGUs	Video				Internet Subscribers	Telephony Subscribers	Mobile Subscribers (a)
					Basic Video Subscribers	Enhanced Video Subscribers	DTH Subscribers	Total Video			
Panama	546,000	546,000	175,800	322,300	—	63,100	23,300	86,400	112,000	123,900	1,569,900
Jamaica	494,900	484,900	246,000	505,400	—	118,100	—	118,100	190,600	196,700	935,900
The Bahamas	128,900	128,900	47,300	79,100	—	6,900	—	6,900	26,600	45,600	224,300
Trinidad and Tobago	324,500	324,500	156,100	301,900	—	107,800	—	107,800	129,700	64,400	—
Barbados	124,700	124,700	83,900	158,500	—	20,600	—	20,600	64,000	73,900	122,100
Other	345,200	325,400	204,800	303,600	10,600	67,300	—	77,900	131,100	94,600	394,200
Total	1,964,200	1,934,400	913,900	1,670,800	10,600	383,800	23,300	417,700	654,000	599,100	3,246,400

(a) Mobile subscribers are comprised of the following:

	Prepaid	Postpaid	Total
Panama	1,424,200	145,700	1,569,900
Jamaica	918,600	17,300	935,900
The Bahamas	200,000	24,300	224,300
Barbados	94,700	27,400	122,100
Other	338,700	55,500	394,200
Total	2,976,200	270,200	3,246,400

Operating Data Glossary

Basic Video Subscriber – A home, residential multiple dwelling unit or commercial unit that receives our video service over our broadband network either via an analog video signal or via a digital video signal without subscribing to any recurring monthly service that requires the use of encryption-enabling technology. Encryption-enabling technology includes smart cards, or other integrated or virtual technologies that we use to provide our enhanced service offerings. We count RGUs on a unique premises basis. In other words, a subscriber with multiple outlets in one premises is counted as one RGU and a subscriber with two homes and a subscription to our video service at each home is counted as two RGUs. We exclude DTH subscribers (as defined below) from basic video subscribers.

Direct-to-Home (DTH) Subscriber – A home, residential multiple dwelling unit or commercial unit that receives our video programming broadcast directly via satellite.

Enhanced Video Subscriber – A home, residential multiple dwelling unit or commercial unit that receives our video service over our broadband network via a digital video signal while subscribing to any recurring monthly service that requires the use of encryption-enabling technology. Enhanced video subscribers are counted on a unique premises basis. For example, a subscriber with one or more set-top boxes that receives our video service in one premises is generally counted as just one subscriber. An enhanced video subscriber is not counted as a basic video subscriber. As we migrate customers from basic to enhanced video services, we report a decrease in our basic video subscribers equal to the increase in our enhanced video subscribers.

Fixed-line Customer Relationships – The number of customers who receive at least one of our video, internet or telephony services that we count as RGUs, without regard to which or to how many services they subscribe. Fixed-line customer relationships generally are counted on a unique premises basis. Accordingly, if an individual receives our services in two premises (e.g., a primary home and a vacation home), that individual generally will count as two customer relationships. We exclude mobile-only customers from customer relationships.

Homes Passed – Homes, residential multiple dwelling units or commercial units that can be connected to our networks without materially extending the distribution plant, except for DTH homes. Certain of our homes passed counts are based on census data that can change based on either revisions to the data or from new census results. We do not count homes passed for DTH.

Internet (Broadband) Subscriber – A home, residential multiple dwelling unit or commercial unit that receives internet services over our networks.

Mobile Subscribers – Our mobile subscriber count represents the number of active subscriber identification module cards in service rather than services provided. For example, if a mobile subscriber has both a data and voice plan on a smartphone this would equate to one mobile subscriber. Alternatively, a subscriber who has a voice and data plan for a mobile handset and a data plan for a laptop (via a dongle) would be counted as two mobile subscribers. Customers who do not pay a recurring monthly fee are excluded from our mobile telephony subscriber counts after periods of inactivity ranging from 30 to 60 days, based on industry standards within the respective country. In a number of countries, our mobile subscribers receive mobile services pursuant to prepaid contracts.

Revenue Generating Unit – RGU is separately a basic video subscriber, enhanced video subscriber, DTH subscriber, internet subscriber or telephony subscriber. A home, residential multiple dwelling unit, or commercial unit may contain one or more RGUs. For example, if a residential customer subscribed to our enhanced video service, fixed-line telephony service and broadband internet service, the customer would constitute three RGUs. Total RGUs is the sum of basic video, enhanced video, DTH, internet and telephony subscribers. RGUs are generally counted on a unique premises basis such that a given premises does not count as more than one RGU for any given service. On the other hand, if an individual receives one of our services in two premises (e.g., a primary home and a vacation home), that individual will count as two RGUs for that service. Each bundled cable, internet or telephony service is counted as a separate RGU regardless of the nature of any bundling discount or promotion. Non-paying subscribers are counted as subscribers during their free promotional service period. Some of these subscribers may choose to disconnect after their free service period. Services offered without charge on a long-term basis (e.g., VIP subscribers or free service to employees) generally are not counted as RGUs. We do not include subscriptions to mobile services in our externally reported RGU counts. In this regard, our RGU counts exclude our separately reported postpaid and prepaid mobile subscribers.

Telephony Subscriber – A home, residential multiple dwelling unit or commercial unit that receives voice services over our networks. Telephony subscribers exclude mobile telephony subscribers.

Two-way Homes Passed – Homes passed by those sections of our networks that are technologically capable of providing two-way services, including video, internet and telephony services.

Additional General Notes to Table:

Most of our operations provide telephony, broadband internet, data, video or other B2B services. We generally do not count customers of B2B services as customers or RGUs for external reporting purposes.

While we take appropriate steps to ensure that subscriber and homes passed statistics are presented on a consistent and accurate basis at any given balance sheet date, the variability from country to country in (i) the nature and pricing of products and services, (ii) the distribution platform, (iii) billing systems, (iv) bad debt collection experience and (v) other factors add complexity to the subscriber counting process. We periodically review our subscriber and homes passed counting policies and underlying systems to improve the accuracy and consistency of the data reported on a prospective basis. Accordingly, we may from time to time make appropriate adjustments to our subscriber and homes passed statistics based on those reviews.

Fixed Network and Product Penetration Data (%)

	Panama	Jamaica	The Bahamas	Trinidad and Tobago	Barbados	Other
Network data:						
Two-way homes passed [(1)]	100%	98%	100%	100%	100%	94%
Homes passed:						
Cable [(2)]	64%	56%	—%	100%	—%	54%
FTTx [(2)]	—%	2%	33%	—%	100%	10%
VDSL [(2)]	36%	42%	67%	—%	—%	36%
Product penetration:						
Television [(3)]	12%	24%	5%	33%	17%	23%
Enhanced video [(4)]	100%	100%	100%	100%	100%	86%
Broadband internet [(5)]	21%	39%	21%	40%	51%	40%
Fixed-line telephony [(5)]	23%	41%	35%	20%	59%	29%
Double-play [(6)]	36%	33%	41%	17%	45%	35%
Triple-play [(6)]	23%	36%	13%	38%	22%	6%

(1) Percentage of total homes passed that are two-way homes passed.

(2) Percentage of two-way homes passed served by a cable, fiber-to-the-home/-cabinet/-building/-node (**FTTx**) or digital subscriber line (**DSL**) network, as applicable."**VDSL**" refers to both our DSL and very high-speed DSL technology networks.

(3) Percentage of total homes passed that subscribe to cable television services (basic video or enhanced video).

(4) Percentage of cable television subscribers (basic video and enhanced video subscribers) that are enhanced video subscribers.

(5) Percentage of two-way homes passed that subscribe to broadband internet or fixed-line telephony services, as applicable.

(6) Percentage of total customers that subscribe to two services (double-play customers) or three services (triple-play customers) offered by our operations (video, broadband internet and fixed-line telephony), as applicable.

Video, Broadband Internet & Fixed-Line Telephony and Mobile Services

	Panama	Jamaica	The Bahamas	Trinidad and Tobago	Barbados	Other
Video services:						
Network System [1]	VDSL/ HFC	VDSL/ HFC/ FTTx	VDSL/ FTTx	HFC	FTTx	VDSL/ HFC/ FTTx
Broadband internet service:						
Maximum download speed offered (**Mbps**)	600	100	300	600	1,000	100 [2]
Mobile services:						
Network Technology [3]	LTE	LTE	LTE	—	LTE	LTE / HSPA+

(1) These are the primary systems used for delivery of services in the countries indicated. "**HFC**" refers to hybrid fiber coaxial cable networks.

(2) In certain markets, speeds of up to 300 Mbps are available.

(3) Fastest available technology. "**LTE**" refers to the Long Term Evolution Standard.

Products and Services

We offer our customers a comprehensive set of converged mobile, broadband, video and fixed-line telephony services. In the table below, we identify the services we offer in each of the countries in the Caribbean and Latin America where we have operations.

	Mobile	Broadband internet	Video	Fixed-line telephony
Anguilla	X	X	X	X
Antigua & Barbuda	X	X	X	X
Barbados	X	X	X	X
British Virgin Islands	X	X	X	X
Cayman Islands	X	X	X	X
Curaçao		X	X	X
Dominica	X	X	X	X
Grenada	X	X	X	X
Jamaica	X	X	X	X
Montserrat	X	X		X
Panama	X	X	X	X
Seychelles	X	X	X	X
St. Kitts & Nevis	X	X	X	X
St. Lucia	X	X	X	X
St. Vincent & the Grenadines	X	X	X	X
The Bahamas	X	X	X	X
Trinidad and Tobago		X	X	X
Turks & Caicos	X	X	X	X

We believe that our ability to offer our customers greater choice and selection in bundling their services enhances the attractiveness of our service offerings, improves customer retention, minimizes churn and increases overall customer lifetime value.

Residential Services

Mobile Services. We offer mobile services throughout most of our operating footprint. We are a mobile network provider, delivering high-speed LTE services in Panama and all but three of our Caribbean markets. As a mobile network provider, we are able to offer a full range of voice and data services, including value-added services. Where available, we expect our mobile services will allow us to provide an extensive converged product offering with video, internet and fixed-line telephony, allowing our customers connectivity in and out-of-the-home. We hold spectrum licenses as a mobile network provider, with terms typically ranging from 10 to 15 years.

Subscribers to our mobile services pay varying monthly fees depending on whether the mobile service is bundled with one of our other services or includes mobile data services over their phones, tablets or laptops. Our mobile services are available on a postpaid or prepaid basis, with most customers purchasing a prepaid plan. We offer our customers the option to purchase mobile handsets with purchase terms typically related to whether the customer selects a prepaid or postpaid plan. Customers selecting a prepaid plan or service pay in advance for a pre-determined amount of airtime and/or data and generally do not enter into a minimum contract term. Customers subscribing to a postpaid plan generally enter into contracts ranging from 12 to 24 months. The long-term contracts are often taken with a subsidized mobile handset. Our mobile services include voice, SMS and internet access via data plans.

Telephony Services. We are the incumbent fixed-line telephony service provider in many of our Caribbean markets and in certain markets we are the sole fixed-line provider.

We offer multi-feature telephony service over our various fixed networks, including cable, FTTx and copper networks. Depending on location, these services are provided via either circuit-switched telephony or voice-over-internet-protocol (**VoIP**) technology. As we continue to develop and invest in new technologies that will enhance our customers' experiences, we are replacing obsolete switches with VoIP technology and older copper networks with modern fiber optics. These digital telephony services cover international and domestic services.

Video Services. We offer video services in most of our residential markets, including Panama, Jamaica, Trinidad and Tobago, Barbados and the Bahamas. To meet the demands of our customers, we have enhanced our video services with next generation, market leading digital television platforms that enable our customers to control when and where they watch their programming. These advanced services are delivered over our FTTx, VDSL and hybrid fiber coaxial cable networks and include a digital video recorder (**DVR**), a video-on-demand (**VoD**) offering and an advanced electronic programming guide. In most of our markets, customers can pause their programming while a live broadcast is in progress as well as access a selection of channels and VoD content through a mobile application. In 2018, we also launched "Replay TV" in many of our markets.

In several of our Caribbean markets and Panama, we offer a comprehensive internet streaming video service (branded "Flow ToGo" and "+TV Go") that allows our video customers to stream an increasing number of channels with a broadband connection in and out of the home and on multiple devices.

All of our operations with fixed video services offer multiple tiers of digital video programming starting with a basic video service. In addition, subscribers have the option to select extended and/or premium subscription tiers. Fixed digital video services require a set-top box provided by us that also enables access to enhanced features such as VoD. Subscribers to our basic digital video services pay a fixed monthly fee and generally can elect to receive, in most of our markets, a skinny entry tier or take a basic tier with a minimum of 100 video channels, including a number of high definition (**HD**) channels.We also offer a variety of premium packages combining channels and VoD. In the few markets where our analog service is still available, subscribers to that service typically receive fewer channels than subscribers to our basic digital service, with the number of channels dependent on their location. Subscribers to our digital services in each case receive the channels available through our analog service. In all of our video operations, we continue to upgrade our systems to expand our digital services and encourage our remaining analog subscribers to convert to a digital or premium digital service. Discounts to our monthly service fees are generally available to any subscriber who selects a bundled service of at least two of the following services: video, internet and fixed-line telephony.

We tailor our video services in each country of operation based on local programing preferences, culture, demographics and local regulatory requirements. Our channel offerings include the most relevant content to our subscribers, combining general entertainment, sports, movies, documentaries, lifestyle, news, adult, children and foreign channels, as well as local, regional and international broadcast networks. We also operate channels in the Caribbean, including the leading Caribbean sports network, Flow Sports.

Broadband Internet Services. Our customers are increasingly using online communications. To support our customers' expectations for seamless connectivity, we are expanding our networks to make ultrafast broadband available to more people. This includes investment in the convergence of our fixed and mobile data systems and making wireless systems available in the home.

During 2018, our Network Extensions programs (as defined and described below) passed approximately 165,000 homes across our footprint. In 2017, we launched next generation WiFi and telephony gateway products to various of our markets. These next generation WiFi and telephony gateway products enable us to maximize the impact of our ultrafast broadband networks by providing reliable wireless connectivity anywhere in the home. These gateway products can be self-installed and have an automatic WiFi optimization function, which selects the best possible wireless frequency.

The internet speeds we offer are one of our differentiators, as customers spend more time streaming video and other bandwidth-heavy services on multiple devices. As a result, we are continuing to invest in additional bandwidth and technologies to increase internet speeds throughout our footprint. We have increased our broadband internet speeds in our footprint following upgrades to our networks, notably in Panama. We plan to continue the upgrade and expansion of our fixed networks so that we can deploy high-speed internet service to additional customers in the coming years.

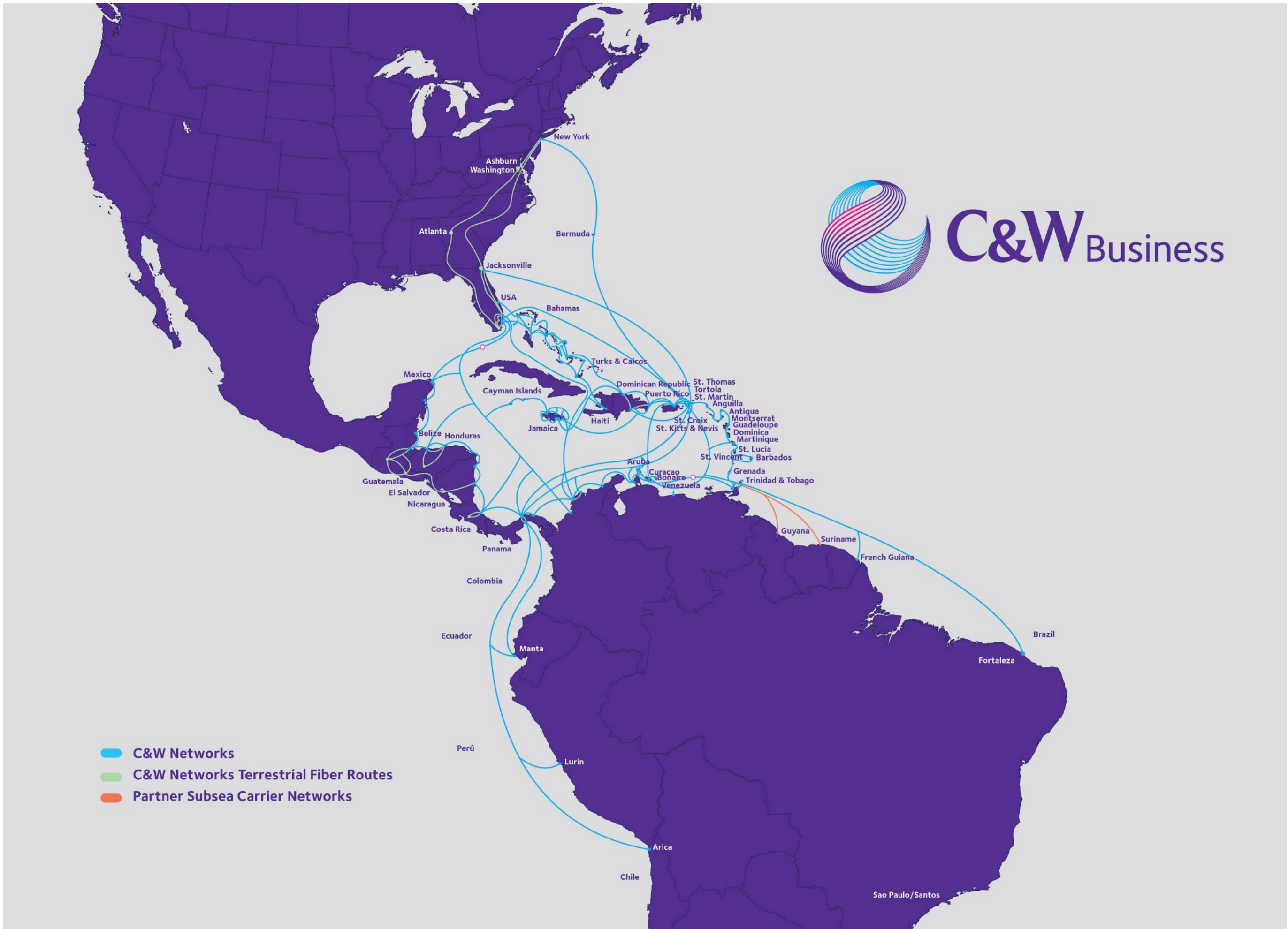
Our residential subscribers access the internet via DSL over our fixed-line telephony networks, FTTx or hybrid fiber coaxial cable networks and with cable modems connected to their internet capable devices, including personal computers, or wirelessly via next generation WiFi and telephony gateway products. In each of our markets, we offer multiple tiers of internet service. The speed of service depends on location and the tier of service selected by our subscribers.

Our value-added services include security measures and online storage. Mobile broadband internet services are also available through our mobile services described above. Subscribers to our internet service pay a monthly fee based on the tier of service selected. In addition to the monthly fee, customers pay an activation service fee upon subscribing to an internet service. This one-time fee may be waived for promotional reasons. We determine pricing for each different tier of internet service through an analysis of speed, market conditions and other factors.

Business Services

We are one of the largest business service providers in our markets, and business services represent a significant portion of our revenue. We offer cloud based integrated communication services, connectivity and wholesale solutions to carriers and businesses throughout the Caribbean and in parts of Latin America via our subsea and terrestrial fiber optic cable networks. Our systems include long-haul terrestrial backbone and metro fiber networks that provide access to major commercial zones, wireless carrier cell sites and customers in key markets within our operating footprint. Our networks deliver critical infrastructure for the transit of growing traffic from businesses, governments and other telecommunications operators across the region, particularly to the high-traffic destination of the United States.

Below is a map of our subsea fiber network.



With over 50,000 km of fiber optic cable, and a capacity of over 3 terabits per second (**Tbps**), we are able to carry large volumes of voice and data traffic on behalf of our customers, businesses and carriers. Our networks also allow us to provide point-to-point, clear channel wholesale broadband capacity services and IP transit, superior switching and routing capabilities and local network services to telecommunications carriers, internet service providers (**ISPs**) and large corporations. In case of outages on portions of the cable systems, our network provides inbuilt resiliency through our traffic re-routing capability. We have received recognition for our wholesale services. In 2018, we received the Best Caribbean Wholesale Carrier and the Best Marketing Campaign at the 2018 Global Carrier Awards. We hold several notable certifications including the International ISO 27001 Certification, which reinforces the commitment to customer data safety, as well as CISCO Cloud and Managed Services Partner Master Certification, along with several others.

We also provide services to business customers across various segments, from small and medium businesses to larger corporate and enterprise organizations including multi-national companies and governments. We work with our business customers to customize the information and communication services they require. We target specific industry segments, such as financial institutions, the hospitality sector, education institutions and government ministries and agencies. We have agreements to provide our services over fully managed and monitored network bandwidth, dedicated fiber lines and third-party fiber networks. We offer tailored solutions that combine our standard services with value-added features, such as dedicated customer care and enhanced service performance monitoring, to meet specific customer requirements. Our business products and services include voice, broadband, enterprise-grade connectivity, network security, unified communications and a range of cloud based IT solutions, such as Infrastructure as a Service (**IaaS**), disaster recovery and other service offerings. We also offer a range of data, voice and internet services to carriers, ISPs and mobile operators. Our extensive fiber optic cable networks allow us to typically deliver redundant, end-to-end connectivity. Our networks also allow us to provide business customers our services over fiber lines and local networks; thereby, seamlessly connecting businesses anywhere in the region. We continuously enhance our capabilities and offerings to be the preferred provider for the business market.

Our business services fall into five broad categories:

- VoIP and circuit-switch telephony, on-premise and hosted private branch exchange solutions and conferencing options, hosted contact center solutions;
- Data services for internet access, virtual private networks, high capacity point-to-point, point-to-multi-point and multi-point-to-multi-point services, managed networking services such as wide area networks and WiFi networks;
- Wireless services for mobile voice and data;
- Interactive TV service with specialized channel lineups for targeted industries; and
- Value added services, including cloud IT services such as disaster recovery as a service, backup services, and IaaS; managed network security services; and specialized services such as digital signage, retail analytics and location based marketing.

The extensive reach of our network and assets, as well as our comprehensive set of capabilities positions us to meet the needs of carriers, businesses and government customers that are searching for a capable, progressive provider to manage their ever more complex communications, connectivity and information technology needs.

Technology

In many of our markets, we transmit our broadband internet, video and fixed-line telephony services over a hybrid fiber coaxial cable network. This network consists primarily of fiber networks that we connect to the home over the last few hundred meters by coaxial cable. In several of our Caribbean markets, we transmit our services over a fixed network consisting of FTTx, VDSL or DSL copper lines. Over 90% of our networks allow for two-way communications and are flexible enough to support our current services as well as new services.

We closely monitor our network capacity and customer usage. We continue to take actions and explore improvements to our technologies that will increase our capacity and enhance our customers' connected entertainment experience. These actions include:

- recapturing bandwidth and optimizing our networks by:
  - increasing the number of nodes in our markets;
  - increasing the bandwidth of our hybrid fiber coaxial cable networks;
  - converting analog channels to digital;
  - bonding additional data over cable service interface specification (DOCSIS) 3.0 channels;
  - deploying VDSL over our fixed telephony network;
  - replacing copper lines with modern optic fibers; and
  - using digital compression technologies.
- freeing spectrum for high-speed internet, VoD and other services by encouraging customers to move from analog to digital services;
- increasing the efficiency of our networks by moving headend functions (encoding, transcoding and multiplexing) to cloud storage systems;
- enhancing our network to accommodate further business services;
- using our wireless technologies to extend services outside of the home;
- offering remote access to our video services through laptops, smart phones and tablets;
- expanding the availability of next generation decoder and set-top boxes and related products, as well as developing and introducing online media sharing and streaming or cloud-based video; and
- testing new technologies.

We are engaged in network extension and upgrade programs. We collectively refer to these network extension and upgrade programs as the "**Network Extensions**." Through the Network Extensions, we continue to expand our fixed networks pursuant to which we pass or upgrade homes and businesses with our broadband communications network. In addition, we look for mobile

service opportunities where we have established cable networks and have expanded our fixed-line networks where we have a strong mobile offering. This will allow us to offer converged fixed-line and mobile services to our customers.

We deliver high-speed data and fixed-line telephony over our various fixed networks, including cable, FTTx and copper networks. These networks are further connected via our subsea and terrestrial fiber optic cable networks that provide connectivity within and outside the region. Our subsea network cables terminating in the United States carry over 3 Tbps, which represent less than 10% of their potential capacity based on current deployed technology, presenting us with significant growth opportunities.

Supply Sources

Content

With telecommunication companies increasingly offering similar services, content is one of the drivers for customers in selecting a video services provider. Therefore, in addition to providing services that allow our customers to view programming when and where they want, we continue to invest in content that matters the most to our customers. Our content strategy is based on:

- proposition (meeting and exceeding our customers' expectations on entertainment);
- product (making content available anywhere and anytime, including live, catch-up and/or VoD);
- acquisition (investment in the best channels, VoD content and exclusive sports); and
- partnering (strategic alliances with content partners and growth opportunities).

Except for our Flow Sports and Flow 1 entertainment services in the Caribbean, we license almost all of our programming and on-demand offerings through distribution agreements with third-party content providers, including broadcasters and cable programming networks. For such licenses, we generally pay a monthly fee on a per subscriber basis, with minimum guarantees in certain cases through long-term programming licenses. In our distribution agreements, we seek to include the rights to offer the licensed channels and programming to our customers through multiple delivery platforms including through our apps for IP connected devices and on our websites. We also acquire rights to make available, in selected markets, basic and/or premium video services to mobile and/or broadband subscribers that are not subscribers to TV services.

In seeking licenses for content, our primary focus is on partnering with leading international providers, such as Disney/ESPN, Fox, Time Warner/HBO/Turner, Discovery, NBCU and Viacom. We also seek to carry key local broadcasters in each of our markets.

We differentiate our video proposition by acquiring exclusive content with the widest distribution segments. We operate the leading Caribbean sports network, Flow Sports. Since August 2016, Flow Sports has broadcast all of the Premier League games across our Caribbean markets as part of a three-year exclusive agreement, over a combination of a basic service, Flow Sports (also distributed to other pay TV operators), and a premium service, Flow Sports Premier (available exclusively to our regional customers). In 2018, Flow Sports started to broadcast the UEFA Champions League and Europa League in partnership with another sports channel. Flow Sports also broadcasts other popular sports in the region, including cricket and track and field. Through the Flow Sports app, our video customers are able to watch Flow Sports content exclusively on-the-go and across multiple screens.

Mobile Handsets and Customer Premises Equipment

We use a variety of suppliers for mobile handsets to offer our customers mobile services. For other customer premises equipment, we purchase from a number of different suppliers with at least two or more suppliers providing our high-volume products. Customer premises equipment includes set-top boxes, modems, WiFi routers, DVRs, tuners and similar devices. For each type of equipment, we retain specialists to provide customer support. For our broadband services, we use a variety of suppliers for our network equipment and the various services we offer.

Software Licenses

We license software products, including email and security software, as well as content, such as news feeds, from several suppliers for our internet services. The agreements for these products require us to pay a per subscriber fee for software licenses and a share of advertising revenue for content licenses. For our mobile network operations and our fixed-line telephony services, we license software products, such as voicemail, text messaging and caller ID, from a variety of suppliers. For these licenses we seek to enter into long-term contracts, which generally require us to pay based on usage of the services.

Regulatory Matters

Video distribution, broadband internet, fixed-line telephony and mobile businesses are regulated in each of the markets in which we operate, and the scope of regulation varies from market to market. Adverse regulatory developments could subject our businesses to a number of risks. Regulation, including conditions imposed on us by competition or other authorities as a requirement to close acquisitions or dispositions, could limit growth, revenue and the number and type of services offered and could lead to increased operating costs and property and equipment additions. In addition, regulation may restrict our operations and subject them to further competitive pressure, including pricing rules and restrictions, interconnect and other access obligations, and restrictions or controls on content, including content provided by third parties. Failure to comply with current or future regulation could expose our businesses to various penalties.

The video, broadband and telephony services we provide are subject to regulation and enforcement by various governmental and regulatory entities in each of the jurisdictions where such services are provided. The scope and reach of these regulations are distinct in each market. Generally, we provide services in accordance with licenses and concessions granted by national authorities pursuant to national telecommunication legislation and associated regulations. Certain of these regulatory requirements are summarized below.

As the incumbent telecommunications provider in many of our jurisdictions, we are subject to significant regulatory oversight with respect to the provision of fixed-line and mobile telephony services. Generally, in these markets, we operate under a government issued license or concession that enables us to own and operate our telecommunication networks, including the establishment of wireless networks and the use of spectrum. These licenses and concessions are typically non-exclusive and have renewable multi-year terms that include competitive, qualitative and rate regulation. Licenses and concessions are scheduled to expire over the next two years in Jamaica, the Cayman Islands and Barbados. We believe we have complied with all local requirements to have existing licenses renewed and have provided all necessary information to enable local authorities to process applications for renewal in a timely manner. In addition, in some of the ECTEL (as defined below) states we are operating under expired licenses and have applied for renewal of such licenses. We expect that such licenses will be granted or renewed, as applicable, on the same or substantially similar terms and conditions in a timely manner. Pending issuance of new or renewed licenses or concessions, we continue to operate on the same terms and conditions as prior to the licenses expiring.

With respect to licenses for mobile spectrum, the initial grant of the spectrum is sometimes subject to an auction process, but in a number of other cases, the license may be granted on the basis of an administrative process at a set level of fees for a fixed period of time, typically to coincide with carrier licenses, subject to the payment of annual fees and compliance with applicable license requirements. In very rare cases, spectrum previously assigned to us may be re-allocated by regulatory authorities to other operators in the market. Alternatively, spectrum sought by us may not be available for grant, due to prior historical grants or due to the need to avoid interference with neighboring markets particularly in the Caribbean. By and large, spectrum assignments, once granted, remain unchanged for the duration of a license and beyond.

Rate regulation of our telephony services typically includes price caps that set the maximum rates we may charge to customers, or legislation that requires consent from a regulator prior to any price increases. In addition, all regulators determine and set the rates that may be charged by all telephony operators, including us, for interconnect charges, access charges between operators for calls originating on one network that are completed through connections with one or more networks of other providers, and charges for network unbundling services. In addition, in certain markets, regulators set, or are seeking to set, mobile roaming rates. Interconnection rates (and primarily mobile termination and roaming rates) in the telecommunications industry worldwide are decreasing, and we are experiencing this trend towards lower interconnection rates in our markets.

In recent years, a number of markets in which we operate have demonstrated an increased interest in regulating various aspects of broadband internet services due to the increasing importance and availability of high speed broadband. National regulators have also demonstrated an increased focus on the issues of network resilience, broadband affordability and penetration, quality of services and consumer rights. For example, in Panama, as a result of a public consultation process, new guidelines and new quality goals were enacted for the internet public service in 2018.

Certain regulators are also seeking to mandate third-party access to our network infrastructure, including dark fiber and landing stations, as well as to regulate wholesale services and prices. Any such decision and application to grant access to our network infrastructure may strengthen our competitors by granting them the ability to access our network to offer competing products and services without making the corresponding capital intensive infrastructure investment. In addition, any resale access granted to competitors on favorable economic terms that are not set by the free market could adversely impact our ability to maintain or increase our revenue and cash flows. The extent of any such adverse impacts ultimately will be dependent on the extent that competitors take advantage of the resale access ultimately afforded to our network, the pricing mandated by regulatory authorities and other competitive factors or market developments.

As an example of infrastructure sharing, the Office of Utilities Regulation in Jamaica has completed a consultation process on telecom facilities sharing rules that would require all licensees to share infrastructure (including dark fiber, ducts, subsea cable landing stations and mobile network towers) with third parties, including competitors, without any requirement of making a corresponding capital intensive infrastructure investment. Once the rules are finalized by the Chief Parliamentary Counsel in Jamaica, they will be formally published and thereafter become law. We intend to appeal to the telecommunications tribunal and finally to the courts for changes to be made to the adverse provisions of the new rules or to revoke them entirely. The process of such a challenge is likely to be long and we cannot at this time determine the possibility of a successful outcome.

In addition, the Eastern Caribbean Telecommunications Authority (**ECTEL**), the regulatory body for telecommunications in five Eastern Caribbean States (Commonwealth of Dominica, Grenada, St. Kitts & Nevis, St. Lucia and St. Vincent and the Grenadines), has adopted an Electronic Communications Bill that may have a material adverse impact on our operations in the ECTEL member states. The proposed Electronic Communications Bill includes provisions relating to:

- net neutrality principles mandating equal access to all content and applications regardless of the source and without favoring, degrading, interrupting, intercepting, blocking access or throttling speeds;
- subscription television rate regulation;
- regulations implementing market dominance rules;
- network unbundling at regulated rates; and
- mandated unbundled access to all landing station network elements at cost-based rates.

We currently cannot determine the impact these provisions will have on our operations because national regulators are required to conduct extensive market reviews before adopting specific measures and these measures might be reconsidered in accordance with the market reviews. It is currently unclear as to when the new legislation will be enacted. To become law, the legislation will need to be passed by the Parliament of each ECTEL state, and there remain some concerns by St. Lucia and Grenada about the impact of the legislation on operators like us. We expect that consensus on the final version of the bill will take some time. As such, the timing and ultimate effect of the bill is unclear. The Bahamas is also expected to modify its Electronic Communications Sector Policy later this year and could have a significant impact on the industry.

In addition to rate regulation, several markets in which we operate have imposed, or are considering imposing, regulations designed to further encourage competition, including introducing requirements related to unbundling, network access to third parties, and local number portability (**LNP**). Panama, the Bahamas, the Cayman Islands and Jamaica have implemented LNP. Other jurisdictions, including Barbados and ECTEL, have considered or begun to implement LNP. Trinidad and Tobago has yet to implement fixed LNP, although LNP rules are in place.

The pay television service provided in certain our markets is subject to, among other things, subscriber privacy regulations, data protection laws and regulations, and the must-carry rule (as defined below) and retransmission consent rights of broadcast stations.

We are also subject to universal service obligations in a number of markets. These obligations vary in specificity and extent, but they are generally related to ensuring widespread geographic coverage of networks and that the populations of our individual markets have access to basic telecommunication services at minimum quality standards. In a number of cases, we are required to support universal access/service goals through contributions to universal service funds or participate in universal service-related projects. In Panama, there is a proposal to modify the universal service law to expand its scope to include television services and provide conditions that would diminish the value of the contribution to the fund *vis a vis* projects covered by the law.

In addition to the industry-specific regimes discussed above, our operating companies must comply with both specific and general legislation concerning, among other matters, data retention, consumer protection and electronic commerce. These operating companies are also subject to national level regulations on competition and on consumer protection.

The acquisition of C&W by Liberty Global plc in May 2016 triggered regulatory approval requirements in certain jurisdictions in which we operate. The regulatory authorities in certain of these jurisdictions, including Trinidad and Tobago and the Seychelles, have not completed their review of the acquisition or granted their approval. While we expect to receive all outstanding approvals, such approvals may include binding conditions or requirements that could have an adverse impact on our operations and financial condition.

In Trinidad and Tobago, we were required by the Telecommunications Authority of Trinidad and Tobago (**TATT**), in connection with TATT's approval of our acquisition of Columbus International Inc. in March 2015, to dispose of its 49% shareholding in the TSTT. The disposal of our stake in TSTT is not complete. We cannot predict when, or if, we will be able to dispose of this investment at an acceptable price. As such, no assurance can be given that we will be able to recover the carrying value of our investment in TSTT.

With respect to our B2B and networks business in Latin America, we are subject to significantly less regulation in the markets in which we operate compared to our residential businesses described above. We do have the licenses in Latin America and the U.S. necessary to operate wholesale and enterprise services in all countries in which we operate. Although the legal framework in Latin America changes from country to country, we do own international/local carrier and Internet or data services licenses in every jurisdiction in which we operate. Most licenses are granted for a 10 to 15 year term.

The networks business operates over 50,000 km of submarine fiber optic cable systems in the U.S., the Caribbean and Latin America. These sub-systems have cable landing stations and facilities in the U.S. and its territories. These facilities are regulated by the FCC, Department of Homeland Security and other U.S. governmental agencies that impose additional reporting and licensing obligations on us.

Competition

We operate in an emerging region of the world, where market penetration of telecommunication services such as broadband and mobile data is lower than in more developed markets. Generally, our markets are at a nascent stage of the global shift to a "data-centric" world. Although there has been strong growth in data consumption in our key markets, data consumption in our operating regions still lags significantly when compared to international benchmarks. We believe that we have the opportunity to capitalize upon this underlying growth trend in the majority of our markets, and benefit from increasing penetration of our data services, as well as economic growth, in all of our markets.

However, technological advances and product innovations have increased and are likely to continue to increase giving customers several options for the provision of their telecommunications services. Our customers want access to high quality telecommunication services that allow for seamless connectivity. Accordingly, our ability to offer converged services (video, internet, fixed telephony and mobile) is a key component of our strategy. In many of our markets, we compete with companies that provide converged services, as well as companies that are established in one or more communication products and services. Consequently, our businesses face significant competition. In all markets, we seek to differentiate our telecommunications services by focusing on customer service, competitive pricing and offering quality high-speed internet.

Mobile and Telephony Services

Consumers are increasingly moving to mobile services. In many of our markets we are either the leading or one of the leading mobile providers. In the markets where we are one of the top mobile providers, we continue to seek additional bandwidth to deliver our wide range of services to our customers and increase our LTE services. We face competition in all of our markets. We also offer various calling plans, such as unlimited network, national or international calling, unlimited off-peak calling and minute packages, including calls to fixed and mobile phones. In addition, we use our bundled offers with our video and high-speed internet services to gain mobile subscribers. Our ability to offer fixed-mobile convergence services is a key driver. In several of our markets, we expect to increase focus on converged services, including mobile, fixed-line, broadband and video. We are also exploring opportunities to offer mobile services in markets where we currently only deliver fixed products and mobility applications to our other services.

The market for fixed-line telephony services is mature in almost all of our markets. Changes in market share are driven by the combination of price and quality of services provided and the inclusion of telephony services in bundled offerings. In most of our markets, we are the incumbent telecommunications provider with long established customer relationships. In our other markets, our fixed-line telephony services compete against the incumbent telecommunications operator in the applicable market. In these markets, the incumbent operators have substantially more experience in providing fixed-line telephony, greater resources to devote to the provision of such services and long-standing customer relationships. In all of our markets, we also compete with VoIP operators offering services across broadband lines and over-the-top (**OTT**) telephony providers, such as WhatsApp. In many countries, our businesses also face competition from other cable telephony providers, FTTx-based providers or other indirect access providers.

Competition exists in both the residential and business fixed-line telephony products due to market trends, the offering of carrier pre-select services, number portability, the replacement of fixed-line with mobile telephony and the growth of VoIP services, as well as continued deregulation of telephony markets and other regulatory action, such as general price competition. Carrier pre-

select allows the end user to choose the voice services of operators other than the incumbent while using the incumbent's network. Our fixed-line telephony strategy is focused around value leadership, and we position our services as "anytime" or "any destination." Our portfolio of calling plans includes a variety of innovative calling options designed to meet the needs of our subscribers. In many of our markets, we provide product innovation, such as telephone applications that allow customers to make and receive calls from their fixed-line call packages on smart phones. In addition, we offer varying plans to meet customer needs and, similar to our mobile services, we use our telephony bundle options with our digital video and internet services to help promote our telephony services and flat rate offers are standard.

With respect to mobile services, we face competition from Digicel Group Ltd. (**Digicel**) in most of our residential markets and in Panama. We also compete with subsidiaries of Telefónica, S.A. (Movistar) and América Móvil, S.A.B. de C.V. (**Claro**) in Panama. In addition, in the Bahamas, where we had previously been the only provider of mobile services, competition has increased significantly due to the commercial launch of mobile services by a competitor, ALIV, during the fourth quarter of 2016. We also face competition in the provision of broadband services from Digicel in our Caribbean markets, Cable Onda S.A. (**Cable Onda**) in Panama and Cable Bahamas Limited (**Cable Bahamas**) in the Bahamas. These companies all have competitive pricing on similar services, and the intensified level of competition we are experiencing in several of our markets has added increased pressure on the pricing of our services. To attract and retain customers, we focus on providing quality services and premium content, as well as converged services where customers can access content in and out-of-the home.

Video Distribution

Our video services compete primarily with traditional free-to-air (**FTA**) broadcast television services, DTH satellite service providers and other fixed-line telecommunications carriers and broadband providers, including operations offering (i) services over hybrid fiber coaxial networks, (ii) DTH satellite services, (iii) internet protocol television (**IPTV**) over broadband internet connections using asymmetric DSL or VDSL or an enhancement to VDSL called "vectoring," (iv) IPTV over FTTx networks, or (v) LTE services. Many of these competitors have a national footprint and offer features, pricing and video services individually and in bundles comparable to what we offer. In certain markets, we also compete with other cable or FTTx based providers who have overbuilt portions of our systems.

OTT aggregators utilizing our or our competitors' high-speed internet connections are also a significant competitive factor as are other video service providers that overlap our service areas. The OTT video aggregators (such as HBO Go, Amazon Prime and Netflix) offer VoD service for television series and movies, catch-up television and linear channels from broadcasters. In some cases, these OTT services are provided free-of-charge. The content library of such services is offered on an unlimited basis for a monthly fee. Typically these services are available on multiple devices in and out of the home. To enhance our competitive position, we are developing cloud-based, next generation user interfaces based on advanced technologies and are providing our subscribers with TV everywhere products and premium OTT video services. Our businesses also compete to varying degrees with other sources of information and entertainment, such as online entertainment, newspapers, magazines, books, live entertainment/concerts and sporting events.

Piracy and other unauthorized uses and distribution of content, including through web-based OTT applications, devices and online platforms, also present challenges for our video business. These platforms illegally stream copyrighted content, for example, Premier League games that can be viewed by anyone with an internet connection. While piracy is a challenge in most jurisdictions in which we operate, it is particularly prevalent in jurisdictions that lack developed copyright laws and effective enforcement of copyright laws.

We believe that our deep-fiber access, where available, provides us with several competitive advantages. For instance, our cable networks allow us to concurrently deliver internet access, together with real-time television and VoD content, without impairing our high-speed internet service. In addition, our cable infrastructure in most of our footprint allows us to provide triple-play bundled services of broadband internet, television and fixed-line telephony services without relying on a third-party service provider or network. Where mobile is available, our mobile networks, together with our fixed fiber-rich networks, will allow us to provide a comprehensive set of converged mobile and fixed-line services. Our capacity is designed to support peak consumer demand. In serving the business market, many aspects of the network can be leveraged at very low incremental costs given that business demand peaks at a time when consumer demand is low, and peaks at lower levels than consumer demand. In response to the continued growth in OTT viewing, we have launched a number of innovative video services, including Flow ToGo and +TV Go in a number of our markets.

Our ability to continue to attract and retain customers depends on our continued ability to acquire appealing content and services on acceptable terms and to have such content available on multiple devices and outside the home. Some competitors have obtained long-term exclusive contracts for certain sports programs, which limits the opportunities for other providers to offer such programs. Other competitors also have obtained long-term exclusive contracts for programs, but our operations have limited access

to certain of such programming through select contracts with those companies. If exclusive content offerings increase through other providers, programming options could be a deciding factor for subscribers on selecting a video service.

In this competitive environment, we enhance our offers with advanced digital services, such as DVR functionality, HD channels, VoD and multiscreen services. In addition, we offer attractive content packages tailored to the particular market and discounts for bundled services. To improve the quality of the programming in our packages, our operations periodically modify their digital channel offerings. Where mobile is available, we are focusing on our converged service offerings. We use these services, as well as bundles of our fixed-line services, as a means of driving video and other products where convenience and price can be leveraged across the portfolio of services.

We compete with a variety of pay TV service providers, with several of these competitors offering double-play and triple-play packages. Fixed-mobile convergence services are not a significant factor in most of our residential markets. In several of our other markets, including Jamaica, Trinidad and Tobago and Barbados, we are the largest or one of the largest video service providers. In these markets, our primary competition is from DTH providers, such as DIRECTV Latin America Holdings, Inc., which is now called Vrio Corp., and operators of IPTV services over VDSL and FTTx, such as Digicel. In Panama, we compete primarily with Cable Onda, which offers video, internet and fixed-line telephony over its cable network, and with the DTH services of Claro. To compete effectively, we invest in leading mobile and fixed networks, and in content, where the Premier League is a main attraction for Flow Sports.

Broadband Internet

With respect to broadband internet services and online content, our businesses face competition in a rapidly evolving marketplace from incumbent and non-incumbent telecommunications companies, mobile operators and cable-based ISPs, many of which have substantial resources. The internet services offered by these competitors include both fixed-line broadband internet services using cable, DSL or FTTx networks and wireless broadband internet services. These competitors have a range of product offerings with varying speeds and pricing, as well as interactive services, data and other non-video services offered to homes and businesses. With the demand for mobile internet services increasing, competition from wireless services using various advanced technologies is a competitive factor. In several of our markets, competitors offer high-speed mobile data via LTE wireless networks. In addition, other wireless technologies, such as WiFi, are available in almost all of our markets. In this intense competitive environment, speed and pricing are key drivers for customers.

A key component of our strategy is speed leadership. Our focus is on increasing the maximum speed of our connections as well as offering varying tiers of services and prices, a variety of bundled product offerings and a range of value added services. We update our bundles and packages on an ongoing basis to meet the needs of our customers. Our top download speeds generally range from 100 Mbps to speeds of up to 600 Mbps. In Barbados, we also have speeds of up to 1 Gbps available. In many of our markets, we offer the highest download speeds available via our cable and FTTx networks. The focus is on high-speed internet products to safeguard our high-end customer base and allow us to become more aggressive at the low- and medium-end of the internet market.

In several of our markets, we are the incumbent phone company offering broadband internet products using various DSL-based technologies. In these markets, our key competition for internet services is from cable and IPTV operators and mobile data service providers. To compete effectively, we are expanding our LTE service areas and increasing our download speeds. In most of our markets, we offer our internet service through bundled offerings that include video and fixed-line telephony. We also offer a wide range of mobile products either on a prepaid or postpaid basis.

Where we are the incumbent telecommunications provider, we compete with cable operators, the largest of which are Cable Onda in Panama and Cable Bahamas in the Bahamas. To a lesser extent, we experience competition from Digicel in certain of our markets. To distinguish ourselves from these competitors, we use our bundled offers with video and telephony to promote our broadband internet services.

Business and Wholesale Services

We provide a variety of advanced, point-to-point, clear channel broadband capacity, IP, Multiprotocol Label Switching, Ethernet and managed services over our owned and operated, technologically advanced, subsea fiber optic cable network. Our subsea and terrestrial fiber routes combine to form a series of fully integrated networks that typically provide complete operational redundancy, stability and reliability, allowing us in most cases to provide our clients with superior service and minimal network downtime. Given the advanced technical state of the network combined with the challenges in securing the necessary governmental and environmental licenses in all of our operating markets, we believe the network is unlikely to be replicated in the region. Competing networks in the region connect fewer countries than we do and are either linear in design, or if ringed, have high latency protection routes. In addition, our network as of December 31, 2018, utilized less than 10% of its design capacity, and we believe that our

ability to take advantage of this large unused carrying capacity, as well as the financial and time investment required to build a similar network, and the potential delays associated with acquiring governmental permissions, makes it unlikely that our network will be replicated in the near term.

We compete in the provision of B2B services with residential telecommunications operators as noted above, in addition to regional and international service providers, particularly when addressing larger customers.

Employees

As of December 31, 2018, we, including our consolidated subsidiaries, had an aggregate of approximately 7,200 full-time equivalent employees, certain of whom belong to organized unions. We believe that our employee relations are good.

Legal Proceedings

We are a party to various legal proceedings that arise in the normal course of our business. While the results of such normal course legal proceedings cannot be predicted with certainty, management believes that, based on our current knowledge, the ultimate resolution of these matters would not likely have a material adverse effect on our business, financial condition or results of operations. However, in view of the inherent difficulty of predicting the outcome of legal matters, we cannot state with confidence what the eventual outcome of these pending matters will be, what the timing of the ultimate resolution of these matters will be or what the eventual loss, fines or penalties related to any such pending matter may be.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis, which should be read in conjunction with our consolidated financial statements, is intended to assist in providing an understanding of our results of operations and financial condition and is organized as follows:

- *Overview.* This section provides a general description of our business and recent events.
- *Results of Operations.* This section provides an analysis of our results of operations for the years ended December 31, 2018 and 2017.
- *Liquidity and Capital Resources.* This section provides an analysis of our liquidity, consolidated statements of cash flows and contractual commitments.
- *Critical Accounting Policies, Judgments and Estimates.* This section discusses those material accounting policies that involve uncertainties and require significant judgment in their application.

Unless otherwise indicated, convenience translations into U.S. dollars are calculated, and operational data (including subscriber statistics) is presented, as of December 31, 2018.

Overview

General

We are a subsidiary of Liberty Latin America that provides mobile, broadband internet, fixed-line telephony and video services to residential and business customers and managed services to business and government customers. We primarily operate in the Caribbean and Latin America, providing consumer, B2B and networks services across 18 countries. In addition, we deliver B2B communication services and provide wholesale communication services over our subsea and terrestrial fiber optic cable networks that connect over 40 markets across the region. Our primary markets include Panama, Jamaica, the Bahamas, Barbados and Trinidad and Tobago.

Disclosure Controls and Procedures

As of December 31, 2018, we have identified the following material weaknesses (as described below) in our internal control over financial reporting:

- We did not have a sufficient number of trained resources with the appropriate skills and knowledge with assigned responsibilities and accountability for the design and operation of internal controls over financial reporting.
- We did not have an effective risk assessment process that successfully identified and assessed risks of misstatement to ensure controls were designed and implemented to respond to those risks. We did not adequately communicate the changes necessary in financial reporting and related internal controls throughout our organization and to affected third parties.
- We did not have an effective monitoring process to assess the consistent operation of internal control over financial reporting and to remediate known control deficiencies.
- We did not have an effective information and communication process to identify, capture and process relevant information necessary for financial accounting and reporting.
- We did not establish effective general information technology controls, specifically related to (i) program change controls designed to restrict IT program developers' access rights to IT systems, (ii) user access controls designed to restrict IT and financial users' access privileges to IT systems commensurate with their assigned authorities and responsibilities and (iii) monitoring controls designed to actively monitor program changes and user access activities to ensure that any program changes and user access were appropriate and that any deficiencies were investigated and remediated. Accordingly, we are unable to place reliance on the impacted automated controls or system-generated reports utilized in the execution of certain manual controls.

As a consequence, we did not have effective control activities related to the design, implementation and operation of process-level control activities related to order-to-cash (including revenue, trade receivables, and deferred revenue), procure-to-pay (including operating expenses, prepaid expenses, accounts payable, and accrued expenses), hire-to-pay (including compensation expense and accrued expenses), long-lived assets (including goodwill impairment expense), inventory and other financial reporting processes.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

These control deficiencies did not result in identified material misstatements in our consolidated financial statements as of and for the year ended December 31, 2018.

We have initiated a plan to remediate the aforementioned material weaknesses in internal control over financial reporting as follows:

- Hire, train, and retain individuals with appropriate skills and experience, assign responsibilities and hold individuals accountable for their roles related to internal control over financial reporting.
- Design and implement a comprehensive and continuous risk assessment process to identify and assess risks of material misstatement and ensure that the financial reporting processes and related internal controls are in place to respond to those risks in our financial reporting.
- Design and implement additional monitoring controls to assess the consistent operation of controls and to remediate deficiencies.
- Design and implement general control activities over IT to support business processes.
- Enhance the design of existing control activities and implement additional process-level control activities (including controls over the order-to-cash, procure-to-pay, hire-to-pay, long-lived assets, inventory and other financial reporting processes) and ensure they are properly evidenced and operating effectively.

Certain of these remediation efforts began in the third quarter of 2018 and we believe the new controls, when fully implemented, will strengthen our internal control over financial reporting and remediate the material weaknesses identified.

Operations

At December 31, 2018, we (i) provided services to 3,246,400 mobile subscribers and (ii) owned and operated networks that passed 1,964,200 homes and served 1,670,800 revenue generating units (**RGU**s), comprising 654,000 broadband internet subscribers, 417,700 video subscribers and 599,100 fixed-line telephony subscribers.

Hurricane Impact Update

In September 2017, Hurricanes Irma and Maria impacted a number of our markets in the Caribbean, resulting in varying degrees of damage to homes, businesses and infrastructure in these markets, most notably in the British Virgin Islands and Dominica. In October, 2016, our operations in the Bahamas was significantly impacted by Hurricane Matthew.

In December 2018, we settled our insurance claims for the Hurricanes with our third-party insurance provider. The settlement amount totaled $47 million and comprised $35 million for Hurricanes Irma and Maria, which was net of $21 million in self-insurance, and $12 million for Hurricane Matthew, which was net of $15 million in self-insurance. During 2018 and 2017, we received payments related to the Hurricanes from our third-party insurance provider totaling $6 million and $3 million, respectively. Subsequent to December 31, 2018, we received $34 million in insurance proceeds. We expect to receive the remaining balance due of $4 million during the first quarter of 2019. For additional information regarding the impacts of the Hurricanes, including self-insurance obligations we have retained, see notes 8 and 14.

During 2018, under the self-insurance obligations C&W retained, the Captive made a payment of $6 million associated with damages sustained by Liberty Puerto Rico from Hurricane Maria.

We offer services over fixed and mobile networks, and portions of these networks in our Impacted Markets were significantly damaged as a result of the hurricanes. At December 31, 2018, services to our mobile and fixed-line customers in these markets have been restored. In connection with our restoration work, we incurred property and equipment additions of approximately $47 million, of which $34 million was incurred during 2018. During the fourth quarter of 2018, we recorded non-organic adjustments to reduce our homes passed and RGUs by 17,500 and 11,000, respectively, that represent homes passed and subscribers in areas where we have not restored the network.

Strategy and Management Focus

From a strategic perspective, we are seeking to build or acquire broadband communications and mobile businesses that have strong prospects for future growth. As discussed further under *Liquidity and Capital Resources—Capitalization* below, we also seek to maintain our debt at levels that provide for attractive equity returns without assuming undue risk.

We strive to achieve organic revenue and customer growth in our operations by developing and marketing bundled entertainment and information and communications services, and extending and upgrading the quality of our networks where appropriate. As we use the term, organic growth excludes foreign currency translation effects (**FX**) and the estimated impact of acquisitions (the **Acquisition Impact**). While we seek to increase our customer base, we also seek to maximize the average revenue we receive from each household by increasing the penetration of our digital video, broadband internet, fixed-line telephony and mobile services with existing customers through product bundling and up-selling.

We are engaged in network extension and upgrade programs. We collectively refer to these network extension and upgrade programs as the "**Network Extensions**." The Network Extensions will be completed in phases with priority given to the most accretive expansion opportunities. During 2018, our network extension and upgrade programs passed approximately 165,000 homes across our footprint. Depending on a variety of factors, including the financial and operational results of the programs, the Network Extensions may be continued, modified or cancelled at our discretion. See *Description of Our Business—Products and Services—Residential Services—Broadband Internet Services*.

For information regarding our expectation with regard to property and equipment additions as a percent of revenue during 2019, see *Liquidity and Capital Resources—Consolidated Statements of Cash Flows* below.

Competition and Other External Factors

We are experiencing significant competition from other telecommunications operators, direct-to-home operators and other providers in all of our markets. In Panama, competition is increasing, in particular in relation to the prepaid mobile business where competitors began introducing new aggressive offers during the second quarter of 2018. In the Bahamas, where we previously were the only provider of mobile services, competition remained at elevated levels during 2018 due to the commercial launch of mobile services by a competitor during the fourth quarter of 2016. In addition, fixed-line competition has increased in a number of our markets in the Caribbean, including Trinidad and Tobago, Jamaica and Barbados. In certain of our markets, we are also experiencing increased regulatory intervention that would, if implemented, facilitate increased competition. The significant competition we are experiencing, together with macroeconomic factors, has adversely impacted our revenue, RGUs and/or average monthly subscription revenue per average fixed RGU or mobile subscriber, as applicable, (**ARPU**) in a number of our markets. For additional information regarding the revenue impact of changes in our RGUs and ARPU, see *Results of Operations* below.

In addition, high levels of sovereign debt in the U.S. and several countries in which we or our affiliates operate, combined with weak growth and high unemployment, could potentially lead to fiscal reforms (including austerity measures), tax increases, sovereign debt restructurings, currency instability, increased counterparty credit risk, high levels of volatility and disruptions in the credit and equity markets, as well as other outcomes that might adversely impact our company. The occurrence of any of these events could have an adverse impact on, among other matters, our liquidity and cash flows.

Material Changes in Results of Operations

The comparability of our operating results is affected by the Carve-out Acquisition on April 1, 2017 and, to a lesser extent, FX. For further information on the Carve-out Acquisition, see note 4 to our consolidated financial statements.

In the following discussion, we quantify the Acquisition Impact on our operating results. The Acquisition Impact represents our estimate of the difference between the operating results of the periods under comparison that is attributable to an acquisition. Accordingly, in the following discussion, (i) organic changes exclude the operating results of an acquired entity during the first 12 months following the date of acquisition and (ii) the calculation of our organic change percentages exclude the Acquisition Impact of such entity.

Changes in foreign currency exchange rates may have a significant impact on our operating results as certain of our subsidiaries have functional currencies other than the U.S. dollar. Our primary exposure to FX risk during 2018 was to the Jamaican dollar and the Trinidad and Tobago dollar. In addition, our operating results are impacted by changes in the exchange rates for other local currencies in Latin America, the Caribbean and the Seychelles. The impacts to the various components of our results of operations that are attributable to changes in FX are highlighted below.

We are subject to inflationary pressures with respect to certain costs and foreign currency exchange risk with respect to costs and expenses that are denominated in currencies other than the respective functional currencies of our subsidiaries. Any cost increases that we are not able to pass on to our subscribers would result in increased pressure on our operating margins.

A significant portion of our revenue is derived from jurisdictions that administer VAT or similar revenue-based taxes. Any increases in these taxes could have an adverse impact on our ability to maintain or increase our revenue to the extent that we are unable to pass such tax increases on to our customers. In the case of revenue-based taxes for which we are the ultimate taxpayer, we will also experience increases in our operating costs and expenses and corresponding declines in our OCF and OCF margin (OCF divided by revenue) to the extent of any such tax increases.

We pay interconnection fees to other telephony providers when calls or text messages from our subscribers terminate on another network, and we receive similar fees from such providers when calls or text messages from their customers terminate on our networks or networks that we access through other arrangements. The amounts we charge and incur with respect to fixed-line telephony and mobile interconnection fees are subject to regulatory oversight. To the extent that regulatory authorities introduce fixed-line or mobile termination rate changes, we would generally experience prospective changes in our interconnect revenue and/or costs. The ultimate impact of any such changes in termination rates on our OCF would be dependent on the call or text messaging patterns that are subject to the changed termination rates.

Revenue

We derive our revenue primarily from (i) residential services, including broadband internet, video and fixed-line telephony services, (ii) residential mobile services and (iii) B2B services, which includes our wholesale communication services over our subsea and terrestrial fiber optic cable networks.

While not specifically discussed in the below explanations of the changes in revenue, we are experiencing significant competition in all of our markets. This competition has an adverse impact on our ability to increase or maintain our RGUs and/or ARPU.

Variances in the subscription revenue that we receive from our customers are a function of (i) changes in the number of RGUs or mobile subscribers during the period and (ii) changes in ARPU. Changes in ARPU can be attributable to (i) changes in prices, (ii) changes in bundling or promotional discounts, (iii) changes in the tier of services selected, (iv) variances in subscriber usage patterns and (v) the overall mix of fixed and mobile products during the period. In the following discussion, we discuss ARPU changes in terms of the net impact of the above factors on the ARPU that is derived from our video, broadband internet, fixed-line telephony and mobile products. Where applicable, we have separately identified the impacts of Hurricanes Maria and Irma in our below discussion of revenue in order to provide more meaningful comparisons resulting from changes in RGUs and ARPU. For additional information regarding the impact of the hurricanes on our subscriber counts, see *Overview* above.

Our revenue by major category is set forth below:

	Year ended December 31,		Increase (decrease)	
	2018	2017	$	%
	in millions, except percentages			
Residential revenue:				
Residential fixed revenue:				
Subscription revenue:				
Video	$ 172.0	$ 164.8	$ 7.2	4.4
Broadband internet	225.3	207.8	17.5	8.4
Fixed-line telephony	101.0	115.3	(14.3)	(12.4)
Total subscription revenue	498.3	487.9	10.4	2.1
Non-subscription revenue	68.3	68.4	(0.1)	(0.1)
Total residential fixed revenue	566.6	556.3	10.3	1.9
Residential mobile revenue:				
Subscription revenue	594.2	643.0	(48.8)	(7.6)
Non-subscription revenue	89.6	88.5	1.1	1.2
Total residential mobile revenue	683.8	731.5	(47.7)	(6.5)
Total residential revenue	1,250.4	1,287.8	(37.4)	(2.9)
B2B revenue:				
Service revenue	842.5	823.1	19.4	2.4
Subsea network revenue	240.2	211.2	29.0	13.7
Total B2B revenue	1,082.7	1,034.3	48.4	4.7
Total	$ 2,333.1	$ 2,322.1	$ 11.0	0.5

As further described in notes 2 and 3 to our consolidated financial statements, we adopted ASU 2014-09 effective January 1, 2018 using the cumulative effect transition method. The most significant impact on revenue from adopting ASU 2014-09 was an increase for certain long-term prepaid subsea capacity arrangements, as described in notes 2 and 3 to our consolidated financial statements and as quantified below.

The details of the changes in our revenue during 2018, as compared to 2017, are set forth below (in millions):

Increase (decrease) in residential fixed subscription revenue due to change in:	
Average number of RGUs (a)	$ 21.3
ARPU (b)	(9.3)
Increase in residential fixed non-subscription revenue (c)	0.2
Total increase in residential fixed revenue	12.2
Decrease in residential mobile subscription revenue (d)	(47.7)
Increase in residential mobile non-subscription revenue (e)	1.3
Increase in B2B service revenue (f)	19.9
Increase in B2B subsea network revenue (g)	21.2
Total organic increase	6.9
Impact of the Carve-out Acquisition	9.5
Impact of FX	(5.4)
Total	$ 11.0

(a) The increase is primarily attributable to higher broadband internet, video and fixed-line telephony RGUs.

(b) The decrease is attributable to the net effect of (i) lower ARPU from fixed-line telephony services, (ii) an improvement in RGU mix and (iii) higher ARPU from broadband internet and video services. This decrease is net of the positive impact of $5 million in customer credits recorded during the third and fourth quarters of 2017 associated with service interruptions resulting from the hurricanes.

(c) The increase is mostly due to (i) higher interconnect revenue, primarily associated with the net effect of a) higher volume in the Bahamas and b) lower volumes in Panama, Barbados and Trinidad and Tobago, and (ii) individually insignificant increases across other of our markets.

(d) The decrease is primarily attributable to (i) lower average subscribers in the Bahamas and Panama and (ii) lower ARPU from mobile services, as declines in Panama, the Bahamas and Barbados were slightly offset by increases in (a) the Impacted Markets, due to higher data usage, and (b) Jamaica. This decrease also includes a decline of $5 million from the adoption of ASU 2014-09, as further described in notes 2 and 3 to our consolidated financial statements.

(e) The increase is primarily attributable to the net impact of (i) higher revenue resulting from lower discounts on handset sales in Panama, which includes $2 million attributable to the adoption of ASU 2014-09, as further described in notes 2 and 3 to our consolidated financial statements, and (ii) lower revenue driven by decreased volumes of handset sales, primarily in Panama and the Bahamas.

(f) The increase is primarily due to the net effect of (i) higher project-related revenue in Jamaica and managed services revenue in Networks & LatAm, (ii) higher interconnect revenue mostly driven by increased volumes in Jamaica, (iii) lower revenue from fixed-line services in Panama, the Impacted Markets and Barbados, (iv) lower revenue from mobile services in Panama and the Bahamas, and (v) individually insignificant changes across other of our markets.

(g) The increase is primarily due to the net effect of (i) an increase of $13 million from the adoption of ASU 2014-09, as further described in notes 2 and 3 to our consolidated financial statements, (ii) an increase from capacity sales on our subsea network to new and existing customers and (iii) a decrease of $6 million associated with subsea revenue recognized on a cash basis related to services provided to a significant customer.

Programming and Other Direct Costs of Services

General. Programming and other direct costs of services include programming and copyright costs, interconnect and access costs, costs of mobile handsets and other devices, and other direct costs related to our operations. Programming and copyright costs, which represent a significant portion of our operating costs, may increase in future periods as a result of (i) higher costs associated with the expansion of our digital video content, including rights associated with ancillary product offerings and rights that provide for the broadcast of live sporting events, (ii) rate increases or (iii) growth in the number of our enhanced video subscribers.

Our programming and other direct costs of services decreased $10 million or 1.8% during 2018, as compared to 2017, which includes an increase of $4 million attributable to the impact of the Carve-out Acquisition and a decrease of $2 million due to FX. Excluding the effects of the Carve-out Acquisition and FX, our programming and other direct costs of services decreased $12 million or 2.2%**.** This decrease includes the following factors:

- A decrease in programming and copyright costs of $11 million or 7.2%, primarily due to the net effect of (i) lower content costs associated with (a) renegotiated contracts and (b) the impact of a $5 million charge during the fourth quarter of 2017 resulting from the reassessment of certain content accruals and (ii) higher content costs associated with an increase in subscribers during 2018;
- A decrease in mobile handset costs of $8 million or 9.1%, primarily due to lower volumes of mobile handset sales; and
- A net increase resulting from other individually insignificant changes in other direct cost categories.

Other Operating Expenses

General. Other operating expenses include (i) network operations, (ii) customer operations, which includes personnel costs and call center costs, (iii) bad debt and collection expenses and (iv) other costs related to our operations.

Our other operating expenses decreased $33 million or 7.4% during 2018, as compared to 2017, which includes an increase of $3 million attributable to the impact of the Carve-out Acquisition and a decrease of $1 million due to FX. Excluding the effects of the Carve-out Acquisition and FX, our other operating expenses (exclusive of share-based compensation expense) decreased $35 million or 7.8%. This decrease includes the following factors:

- A decrease in bad debt and collection expenses of $14 million or 26.1%, primarily due to the net effect of (i) better than expected collections in 2018, including a $3 million recovery during the first quarter related to provisions established following the impacts of Hurricanes Irma and Maria, (ii) decreases resulting from provisions recorded during (a) the third

quarter of 2017 in connection with Hurricanes Irma and Maria of $4 million and (b) the first quarter of 2017 in connection with Hurricane Matthew, and (iii) increases primarily related to higher collection-related costs in certain of our markets;

- A decrease in personnel costs of $5 million or 4.8%, primarily due to the net effect of (i) lower staffing levels and (ii) higher incentive compensation costs;
- A decrease of $3 million in revenue-based taxes in the Bahamas due to lower revenue;
- A decrease in outsourced labor and professional fees of $2 million or 6.7%, primarily due to cost-saving initiatives;
- A decrease in network-related expenses of $2 million or 1.4%, primarily due to the net effect of (i) declines resulting from network repair costs incurred in the first quarter of 2017 associated with damages sustained from Hurricane Matthew and, to a lesser extent, during the third and fourth quarters of 2017 associated with damages sustained from Hurricanes Irma and Maria of $4 million, (ii) lower maintenance costs, (iii) network repair costs incurred in the first half of 2018, including costs associated with (a) subsea fiber repairs and (b) damages sustained from Hurricanes Irma and Maria, (iv) an increase due to the reassessment of certain accruals, which resulted in their release during the second quarter of 2017, and (v) net increases in certain rental, utilities and other network-related expenses in certain of our markets; and
- A net decrease resulting from other individually insignificant changes in other operating expense categories.

SG&A Expenses

General. SG&A expenses include human resources, information technology, general services, management, finance, legal, sales and marketing costs, share-based compensation and other general expenses.

Our SG&A expenses increased $11 million or 2.4% during 2018, as compared to 2017, which includes an increase of $1 million attributable to the impact of the Carve-out Acquisition and a decrease of $1 million due to FX. Excluding the effects of the Carve-out Acquisition and FX, our SG&A expenses (exclusive of share-based compensation expense) increased $11 million or 2.3%. This increase includes the following factors:

- An increase in personnel costs of $9 million or 4.3%, primarily due to the net effect of (i) higher incentive compensation costs, (ii) a decrease in staffing levels and (iii) wage increases across certain markets;
- A decrease of $8 million in aircraft-related expenses associated with the termination of an aircraft lease in the fourth quarter of 2017, including (i) a $4 million decline in operating and maintenance expenses, and (ii) a $4 million provision in 2017 for the remaining rent on the non-cancellable lease;
- An increase of $3 million related to higher insurance premiums;
- An increase in marketing and advertising expenses of $2 million or 3.6%, primarily due to the net effect of (i) higher costs associated with advertising campaigns and (ii) lower sponsorship costs; and
- A net increase resulting from other individually insignificant changes in SG&A expense categories.

Business interruption loss recovery

As further described in *Overview* above and note 8 to our consolidated financial statements, during 2018, we settled insurance claims associated with the Hurricanes resulting in the recognition of a business interruption loss recovery of $11 million, which is recognized as a benefit in our consolidated statement of operations.

Share-based compensation expense (included in other operating and SG&A expenses)

Our share-based compensation expense increased $5 million during 2018, as compared to 2017, primarily due to (i) share-based incentive awards granted during 2018 and (ii) the impact of changes in the number of our employees.

Related-party fees and allocations

We recorded related-party fees and allocations of $28 million and $4 million during 2018 and 2017, respectively. During 2018, these fees and allocations were charged to our company by Liberty Latin America or subsidiaries of Liberty Latin America. During 2017, these fees and allocations were charged from Liberty Global or subsidiaries of Liberty Global. These amounts include charges for management, finance, legal, technology and other corporate and administrative services provided to our company.

For additional information regarding our related-party fees and allocations, see note 14 to our consolidated financial statements.

Depreciation and amortization expense

Our depreciation and amortization expense increased $28 million or 4.7% during 2018, as compared to 2017, primarily attributable to an increase in property and equipment additions associated with the installation of customer premises equipment and other capital initiatives.

Impairment, restructuring and other operating items, net

We recognized impairment, restructuring and other operating items, net, of $632 million and $482 million during 2018 and 2017, respectively.

The 2018 amount primarily includes (i) impairment charges of $615 million, (ii) restructuring charges of $32 million, of which $24 million was related to employee severance and termination costs in connection with certain reorganization and integration activities, primarily in the Bahamas, Panama and Jamaica, and (iii) $17 million related to the recovery of damaged or destroyed property and equipment.

The 2017 amount includes impairment charges of $458 million, which comprises (i) $318 million associated with our annual goodwill assessment with respect to certain of our reporting units and (ii) $140 million recorded during the third and fourth quarters related to charges to reduce the carrying values of goodwill and property and equipment as a result of the impacts of Hurricanes Irma and Maria. We concluded impairments were necessary at certain reporting units, primarily as a result of greater than expected impacts of competition and, in the case of one smaller reporting unit, a longer expected recovery period from Hurricane Irma. The 2017 amount also includes (i) restructuring charges of $23 million related to employee severance and termination costs in connection with certain reorganization and integration activities, primarily associated with the integration of our company with Liberty Latin America, and (ii) $11 million associated with insurance losses incurred by the Captive.

For additional information regarding our impairment and restructuring charges, see notes 9 and 15 to our consolidated financial statements.

Interest expense

Our interest expense increased $37 million during 2018, as compared to 2017. This increase is primarily attributable to (i) an increase resulting from the adoption of ASU 2014-09, as further described in notes 2 and 3 to our consolidated financial statements, (ii) an increase associated with the net accretion of premiums and discounts and (iii) a higher average outstanding debt balance.

For additional information regarding our outstanding indebtedness, see note 10 to our consolidated financial statements.

It is possible that the interest rates on (i) any new borrowings could be higher than the current interest rates on our existing indebtedness and (ii) our variable-rate indebtedness could increase in future periods. As further discussed in note 5 to our consolidated financial statements, we use derivative instruments to manage our interest rate risks.

Interest income

We recognized interest income of $9 million during each of 2018 and 2017. These amounts primarily relate to interest on our loans receivable and cash and cash equivalents.

Realized and unrealized gains (losses) on derivative instruments, net

Our realized and unrealized gains (losses) on derivative instruments, net, of ($16 million) and $3 million for the years ended December 31, 2018 and 2017, respectively, are comprised of (losses) gains on our cross-currency and interest rate derivative contracts.

The loss during 2018 is primarily attributable to the net effect of (i) changes in FX rates and (ii) changes in interest rates. In addition, the loss during 2018 includes a net loss of $2 million resulting from changes in our credit risk valuation adjustments. The gain during 2017 is primarily attributable to the net effect of (i) changes in interest rates and (ii) changes in FX rates. In addition, the gain during 2017 includes a net loss of $1 million resulting from changes in our credit risk valuation adjustments.

For additional information concerning our derivative instruments, see notes 5 and 6 to our consolidated financial statements.

Foreign currency transaction losses, net

Our foreign currency transaction gains or losses primarily result from the remeasurement of monetary assets and liabilities that are denominated in currencies other than the underlying functional currency of the applicable entity. Unrealized foreign currency transaction gains or losses are computed based on period-end exchange rates and are non-cash in nature until such time as the amounts are settled. The details of our foreign currency transaction losses, net, are as follows:

	Year ended December 31,	
	2018	2017
	in millions	
British pound sterling-denominated debt issued by a U.S. dollar functional currency entity	$ 11.4	$ (20.7)
Payables and receivables denominated in a currency other than the entity's functional currency	(10.8)	(2.7)
Intercompany payables and receivables denominated in a currency other than the entity's functional currency	(9.8)	7.0
Cash denominated in a currency other than the entity's functional currency	(3.6)	(1.1)
Total	$ (12.8)	$ (17.5)

Losses on debt modification and extinguishment, net

We recognized losses on debt modification and extinguishment, net, of $26 million and $49 million during 2018 and 2017, respectively. The loss during 2018 primarily includes (i) the payment of $17 million of redemption premiums and (ii) a net loss of $8 million associated with the write-off of unamortized premiums, discounts and deferred financing costs. The loss during 2017 includes the net impact of (i) the payment of $85 million of redemption premiums, (ii) a net gain of $38 million associated with the write-off of unamortized premiums, discounts and deferred financing costs and (iii) the payment of $2 million of third-party costs.

For additional information concerning our gains (losses) on debt modification and extinguishment, net, see note 10 to our consolidated financial statements.

Income tax expense

We recognized income tax expense of $4 million and $69 million during 2018 and 2017, respectively.

The income tax expense during 2018 differs from the expected income tax benefit of $131 million (based on the U.K. income tax rate of 19%), primarily due to (i) the beneficial effects of international rate differences, which are offset by (ii) the effect of non-deductible goodwill impairments, (iii) increases in valuation allowances and (iv) net unfavorable permanent differences.

The income tax expense during 2017 differs from the expected income tax benefit of $92 million (based on the U.K. income tax rate of 19%), primarily due to (i) the beneficial effects of enacted rate changes, which are offset by (ii) the effect of non-deductible goodwill impairments, (iii) detrimental effects of international rate differences, (iv) increases in valuation allowances and (v) net unfavorable permanent differences.

For additional information regarding our income taxes, see note 11 to our consolidated financial statements.

Net loss

The following table sets forth selected summary financial information of our net loss:

	Year ended December 31,	
	2018	2017
	in millions	
Operating loss	$ (376.4)	$ (224.5)
Net non-operating expenses	$ (315.3)	$ (259.8)
Income tax expense	$ (3.5)	$ (68.6)
Net loss	$ (695.2)	$ (552.9)

Gains or losses associated with (i) changes in the fair values of derivative instruments and (ii) movements in foreign currency exchange rates are subject to a high degree of volatility and, as such, any gains from these sources do not represent a reliable source of income. In the absence of significant gains in the future from these sources or from other non-operating items, our ability to achieve earnings is largely dependent on our ability to increase our OCF to a level that more than offsets the aggregate amount of our (i) share-based compensation expense, (ii) depreciation and amortization, (iii) impairment, restructuring and other operating items, (iv) interest expense, (v) other non-operating expenses and (vi) income tax expenses.

Subject to the limitations included in our various debt instruments, we expect that Liberty Latin America will continue to cause our company to maintain our debt at current levels relative to Covenant EBITDA. As a result, we expect that we will continue to report significant levels of interest expense for the foreseeable future.

Net loss attributable to noncontrolling interests

We reported net losses attributable to noncontrolling interests of $294 million and $10 million during 2018 and 2017, respectively. The change during 2018, as compared to 2017, is primarily attributable to the net effect of (i) an increase in losses of our less-than-wholly-owned subsidiaries, primarily related to a goodwill impairment charge at our Panama reporting unit, (ii) during 2018, our increase in the ownership in C&W Jamaica from 82.0% to 92.3%, and (iii) effective September 1, 2017, the acquisition of all the issued outstanding common shares of C&W Barbados that we did not already own. For additional information on the goodwill impairment charge and noncontrolling interests acquisition activity, see notes 9 and 12, respectively, to our consolidated financial statements.

Liquidity and Capital Resources

Sources and Uses of Cash

Cash and cash equivalents

At December 31, 2018, we had cash and cash equivalents of $416 million, most of which was held by our subsidiaries.

Liquidity of C&W

Our current sources of liquidity at the parent level include (i) interest and dividend income received on our investments and, subject to certain tax and legal considerations, our unrestricted subsidiaries' cash and cash equivalents and investments and (ii) proceeds in the form of loan repayments from LGE Coral Holdco. Our ability to access the liquidity of these and our other subsidiaries may be limited by tax and legal considerations, the presence of noncontrolling interests, foreign currency exchange restrictions and other factors.

The ongoing cash needs of C&W include (i) corporate general and administrative expenses and (ii) other liquidity needs that may arise from time to time. In addition, C&W may also require cash in connection with (i) the funding of loans or distributions to LGE Coral Holdco (and ultimately to Liberty Latin America or other Liberty Latin America subsidiaries), (ii) the satisfaction of contingent liabilities, (iii) acquisitions and other investment opportunities, (iv) the repurchase of debt securities or (v) any funding requirements of our consolidated subsidiaries. No assurance can be given that funding from Liberty Latin America or other Liberty Latin America subsidiaries, our subsidiaries or external sources would be available on favorable terms, or at all.

In addition, the amount of cash we receive from certain of our subsidiaries to satisfy U.S. dollar-denominated liquidity requirements is impacted by fluctuations in exchange rates. In this regard, the strengthening (weakening) of the U.S. dollar against these currencies will result in decreases (increases) in the U.S. dollars received from the applicable subsidiaries to fund U.S. dollar-denominated liquidity requirements.

From time to time, we or our respective affiliates may, to the extent permitted under applicable law, acquire or repay any third-party or related-party debt through open market purchases, privately negotiated transactions, tender offers, exchange offers, redemptions or otherwise, upon such terms and at such prices as we may determine (or as may be provided for in our respective indenture agreements).

Liquidity of our subsidiaries

In addition to cash and cash equivalents, the primary sources of liquidity of our subsidiaries are cash provided by operations, borrowing availability under the C&W Revolving Credit Facility, borrowings available under the C&W Regional Facilities and insurance proceeds, as discussed in *Overview* above and note 8 to our consolidated financial statements. For the details of our borrowing availability at December 31, 2018, see note 10 to our consolidated financial statements. The aforementioned sources of liquidity may be supplemented in certain cases by contributions and/or loans from Liberty Latin America and its unrestricted subsidiaries. The liquidity of our subsidiaries generally is used to fund property and equipment additions, debt service requirements and income tax payments. From time to time, our subsidiaries may also require liquidity in connection with (i) acquisitions and other investment opportunities, (ii) loans to C&W and/or Liberty Latin America or other Liberty Latin America subsidiaries, (iii) capital distributions to C&W (and ultimately to Liberty Latin America) and other equity owners or (iv) the satisfaction of contingent liabilities. No assurance can be given that any external funding would be available to our subsidiaries on favorable terms, or at all. For information regarding our subsidiaries' commitments and contingencies, see note 17 to our consolidated financial statements.

For additional information regarding our cash flows, see the discussion under *Consolidated Statements of Cash Flows* below.

Capitalization

Our ability to service or refinance our debt and to maintain compliance with the leverage covenants in our credit agreements is dependent primarily on our ability to maintain Covenant EBITDA, and to achieve adequate returns on our property and equipment additions and acquisitions. In addition, our ability to obtain additional debt financing is limited by incurrence-based leverage covenants contained in our various debt instruments. For example, if our Covenant EBITDA were to decline, our ability to obtain additional debt could be limited. No assurance can be given that we would have sufficient sources of liquidity, or that any external funding would be available on favorable terms, or at all, to fund any such required repayment. At December 31, 2018, we were in compliance with our debt covenants. We do not anticipate any instances of non-compliance with respect to our debt covenants that would have a material adverse impact on our liquidity during the next 12 months.

At December 31, 2018, the outstanding principal amount of our debt, together with our capital lease obligations, aggregated $4,043 million, including $201 million that is classified as current in our consolidated balance sheet and $3,692 million that is not due until 2022 or thereafter. All of our debt and capital lease obligations have been borrowed or incurred by our subsidiaries at December 31, 2018. For additional information concerning our debt, including our debt maturities, see note 10 to our consolidated financial statements.

We believe that we have sufficient resources to repay or refinance the current portion of our debt and capital lease obligations and to fund our foreseeable liquidity requirements during the next 12 months. However, as our debt maturities grow in later years, we anticipate that we will seek to refinance or otherwise extend our debt maturities. No assurance can be given that we will be able to complete refinancing transactions or otherwise extend our debt maturities. In this regard, it is difficult to predict how political and economic conditions, sovereign debt concerns or any adverse regulatory developments will impact the credit markets we access and our future financial position. Our ability to access debt financing on favorable terms, or at all, could be adversely impacted by (i) the financial failure of any of our counterparties, which could (a) reduce amounts available under committed credit facilities and (b) adversely impact our ability to access cash deposited with any failed financial institution, and (ii) tightening of the credit markets. In addition, sustained or increased competition, particularly in combination with adverse economic or regulatory developments, could have an unfavorable impact on our cash flows and liquidity.

Consolidated Statements of Cash Flows

General. Our cash flows are subject to variations due to FX.

Summary. Our 2018 and 2017 consolidated statements of cash flows are summarized as follows:

	Year ended December 31,		
	2018	2017	Change
		in millions	
Net cash provided by operating activities	$ 489.0	$ 315.1	$ 173.9
Net cash used by investing activities	(414.0)	(409.1)	(4.9)
Net cash provided by financing activities	52.4	100.6	(48.2)
Effect of exchange rate changes on cash	(4.6)	(1.6)	(3.0)
Net increase in cash and cash equivalents	$ 122.8	$ 5.0	$ 117.8

Operating Activities. The increase in net cash provided by our operating activities is primarily attributable to the net effect of (i) an increase from our OCF and related working capital items, including our 2017 funding contribution to the CWSF, (ii) higher payments for taxes, (iii) lower payments related to derivative instruments and (iv) higher payments of interest.

Investing Activities. The decrease in net cash used by our investing activities is primarily attributable to the net effect of (i) $40 million related to a note receivable due from LGE Coral Holdco and (ii) lower capital expenditures, as further discussed below. Additionally, in connection with final settlement in 2018, $7 million of the cumulative payments received from our third-party insurance provider related to the Hurricanes is presented as a cash inflow from investing activities on our 2018 consolidated statement of cash flows. For additional information regarding the settlement of our insurance claims associated with the Hurricanes, see note 8 to our consolidated financial statements.

The capital expenditures that we report in our consolidated statements of cash flows do not include amounts that are financed under capital-related vendor financing or capital lease arrangements. Instead, these amounts are reflected as non-cash additions to our property and equipment when the underlying assets are delivered and as repayments of debt when the principal is repaid. In this discussion, we refer to (i) our capital expenditures as reported in our consolidated statements of cash flows and (ii) our total property and equipment additions, which include our capital expenditures on an accrual basis and amounts financed under capital-related vendor financing or capital lease arrangements.

A reconciliation of our property and equipment additions to our capital expenditures, as reported in our consolidated statements of cash flows, is set forth below:

	Year ended December 31,	
	2018	2017
	in millions	
Property and equipment additions	$ 378.7	$ 431.8
Assets acquired under capital-related vendor financing arrangements	(11.0)	—
Assets acquired under capital leases	(2.2)	(3.9)
Changes in current liabilities related to capital expenditures	15.4	(22.8)
Capital expenditures	$ 380.9	$ 405.1

The decrease in our property and equipment additions during 2018, as compared to 2017, is primarily due to the net effect of (i) a decrease in support-related equipment, (ii) excluding the impact of hurricane restoration activities, a decrease in the expansion and upgrade of our networks and other capital initiatives, (iii) an increase related to network capacity, (iv) an increase in expenditures of $21 million in connection with network restoration activities following Hurricanes Maria and Irma and (v) an increase related to customer premises equipment. During 2018 and 2017, our property and equipment additions represented 16.2% and 18.6% of revenue, respectively.

We expect the percentage of revenue represented by our aggregate 2019 property and equipment additions to range from 15% to 17%. The actual amount of the 2019 consolidated property and equipment additions may vary from expected amounts for a variety of reasons, including (i) changes in (a) the competitive or regulatory environment, (b) business plans, (c) our expected future operating results and (d) foreign currency exchange rates and (ii) the availability of sufficient capital. Accordingly, no assurance can be given that our actual property and equipment additions will not vary materially from our expectations.

Financing Activities. The decrease in net cash provided by our financing activities is primarily attributable to the net effect of (i) $146 million related to lower net borrowings of debt, (ii) $79 million due to lower payments for financing costs and debt premiums, (iii) $31 million in connection with the C&W Barbados NCI Acquisition in 2017, (iv) $20 million paid during 2018 in connection with the C&W Jamaica NCI Acquisition and (v) $9 million in lower distributions to noncontrolling interests in Panama.

Projected Cash Flows Associated with Derivative Instruments

The following table provides information regarding the projected cash flows associated with our derivative instruments. The U.S. dollar equivalents presented below are based on interest rates and exchange rates that were in effect as of December 31, 2018. These amounts are presented for illustrative purposes only and will likely differ from the actual cash payments required in future periods. For additional information regarding our derivative instruments, including our counterparty credit risk, see note 5 to our consolidated financial statements.

	Payments (receipts) due during:						
	2019	**2020**	**2021**	**2022**	**2023**	**Thereafter**	**Total**
				in millions			
Projected derivative cash payments (receipts), net:							
Interest-related (a)	$ 6.2	$ (6.0)	$ (6.0)	$ (6.4)	$ 1.6	$ 23.9	$ 13.3
Principal-related (b)	4.1	—	—	(0.1)	—	(1.7)	2.3
Total	$ 10.3	$ (6.0)	$ (6.0)	$ (6.5)	$ 1.6	$ 22.2	$ 15.6

(a) Includes the interest-related cash flows of our cross-currency and interest rate derivative contracts.

(b) Includes the principal-related cash flows of our cross-currency derivative contracts.

Debt Maturities and Contractual Commitments

For information concerning our debt and other financial obligations, see note 10 to our consolidated financial statements. For information concerning our commitments and certain indemnifications, see note 17 to our consolidated financial statements.

In addition to the commitments set forth in note 17 to our consolidated financial statements, we have significant commitments under (i) derivative instruments and (ii) defined benefit plans and similar agreements, pursuant to which we expect to make payments in future periods. For information regarding projected cash flows associated with our derivative instruments, see *Projected Cash Flows Associated with Derivative Instruments* above. For information regarding our derivative instruments, including the net cash paid or received in connection with these instruments during 2018 and 2017, see note 5 to our consolidated financial statements. For information regarding our defined benefit plans, see note 16 to our consolidated financial statements.

Critical Accounting Policies, Judgments and Estimates

In connection with the preparation of our consolidated financial statements, we make estimates and assumptions that affect the reported amounts of assets and liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. Critical accounting policies are defined as those policies that are reflective of significant judgments, estimates and uncertainties, which would potentially result in materially different results under different assumptions and conditions. We believe the following accounting policies are critical in the preparation of our consolidated financial statements because of the judgment necessary to account for these matters and the significant estimates involved, which are susceptible to change:

- Impairment of property and equipment and intangible assets (including goodwill);
- Costs associated with construction and installation activities;
- Fair value measurements in acquisition accounting; and
- Income tax accounting.

For additional information concerning our significant accounting policies, see note 3 to our consolidated financial statements.

Impairment of Property and Equipment and Intangible Assets

The aggregate carrying value of our property and equipment and intangible assets (including goodwill) that was held for use comprised 82% of our total assets at December 31, 2018.

When circumstances warrant, we review the carrying amounts of our property and equipment and our intangible assets (other than goodwill) to determine whether such carrying amounts continue to be recoverable. Such changes in circumstance may include (i) the impact of natural disasters such as hurricanes, (ii) an expectation of a sale or disposal of a long-lived asset or asset group, (iii) adverse changes in market or competitive conditions, (iv) an adverse change in legal factors or business climate in the markets in which we operate and (v) operating or cash flow losses. For purposes of impairment testing, long-lived assets are grouped at the lowest level for which cash flows are largely independent of other assets and liabilities, generally at or below the reporting unit level (see below). If the carrying amount of the asset or asset group is greater than the expected undiscounted cash flows to be generated by such asset or asset group, an impairment adjustment is recognized. Such adjustment is measured by the amount that the carrying value of such asset or asset group exceeds its fair value. We generally measure fair value by considering (i) sale prices for similar assets, (ii) discounted estimated future cash flows using an appropriate discount rate and/or (iii) estimated replacement cost. Assets to be disposed of are recorded at the lower of their carrying amount or fair value less costs to sell.

We evaluate goodwill for impairment at least annually on October 1 and whenever facts and circumstances indicate that their carrying amounts may not be recoverable. When evaluating impairment, we first make a qualitative assessment to determine if the goodwill may be impaired. If it is more-likely-than-not that a reporting unit's fair value is less than its carrying value, we then compare the fair value of the reporting unit to its respective carrying amount. A reporting unit is an operating segment or one level below an operating segment (referred to as a "component"). Goodwill impairment is recorded as the excess of a reporting unit's carrying value over its fair value and is charged to operations.

When required, considerable management judgment is necessary to estimate the fair value of reporting units and underlying long-lived and indefinite-lived assets. We typically determine fair value using a market-based approach or an income-based approach (discounted cash flows) based on assumptions in our long-range business plans, or a combination of an income-based and market-based approach. With respect to our discounted cash flow analysis used in the income-based approach, the timing and amount of future cash flows under these business plans require estimates of, among other items, subscriber growth and retention rates, rates charged per product, expected gross margins and OCF margins and expected property and equipment additions. The development of these cash flows, and the discount rate applied to the cash flows, is subject to inherent uncertainties, and actual results could vary significantly from such estimates. Our determination of the discount rate is based on a weighted average cost of capital approach, which uses a market participant's cost of equity and after-tax cost of debt and reflects the risks inherent in the cash flows. With respect to a market-based approach, the fair value of a reporting unit is estimated based upon a market multiple typically applied to the reporting unit's OCF. We determine the market multiple for each reporting unit taking the following into consideration: (i) public company trading multiples for entities with similar business characteristics as the respective reporting unit, adjusted to reflect an appropriate control premium or discount, a "trading multiple;" and (ii) multiples derived from the value of recent transactions for businesses with similar operations and in geographically similar locations, a "transaction multiple." Changes in the underlying assumptions used in both the income-based and market-value valuation methods can result in materially different determinations of fair value. An increase/decrease of 0.1x to the market multiple used in the impairment of our Panama

reporting unit would have resulted in an increase/decrease of $26 million to the related impairment. For additional information regarding impairments recorded during 2018 and 2017, see notes 6 and 9 to our consolidated financial statements.

Further impairment charges may be required if we experience additional declines in the fair value of certain of our reporting units.

Costs Associated with Construction and Installation Activities

We capitalize costs associated with the construction of new cable and mobile transmission and distribution facilities, the installation of new cable services and the development of software supporting our operations. Installation activities that are capitalized include (i) the initial connection (or drop) from our cable system to a customer location, (ii) the replacement of a drop and (iii) the installation of equipment for additional services, such as digital cable, telephone or broadband internet service. The costs of other customer-facing activities, such as reconnecting customer locations where a drop already exists, disconnecting customer locations and repairing or maintaining drops, are expensed as incurred.

The nature and amount of labor and other costs to be capitalized with respect to construction and installation activities involves significant judgment. In addition to direct external and internal labor and materials, we also capitalize other costs directly attributable to our construction and installation activities, including dispatch costs, quality-control costs, vehicle-related costs and certain warehouse-related costs. The capitalization of these costs is based on time sheets, time studies, standard costs, call tracking systems and other verifiable means that directly link the costs incurred with the applicable capitalizable activity. We continuously monitor the appropriateness of our capitalization policies and update the policies when necessary to respond to changes in facts and circumstances, such as the development of new products and services and changes in the manner that installations or construction activities are performed.

Fair Value Measurements in Acquisition Accounting

The application of acquisition accounting requires that we make fair value determinations as of the applicable valuation date. In making these determinations, we are required to make estimates and assumptions that affect the recorded amounts, including, but not limited to, expected future cash flows, market comparables and discount rates, remaining useful lives of long-lived assets, replacement or reproduction costs of property and equipment and the amounts to be recovered in future periods from acquired net operating losses and other deferred tax assets. To assist us in making these fair value determinations, we may engage third-party valuation specialists. Our estimates in this area impact, among other items, the amount of depreciation and amortization and income tax expense or benefit that we report. Our estimates of fair value are based upon assumptions we believe to be reasonable, but which are inherently uncertain. A significant portion of our long-lived assets were initially recorded through the application of acquisition accounting. For additional information, see note 6 to our consolidated financial statements. For information regarding our acquisitions and long-lived assets, see notes 4 and 6 to our consolidated financial statements.

Income Tax Accounting

We are required to estimate the amount of tax payable or refundable for the current year and the deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts and income tax basis of assets and liabilities and the expected benefits of utilizing net operating loss and tax credit carryforwards, using enacted tax rates in effect for each taxing jurisdiction in which we operate for the year in which those temporary differences are expected to be recovered or settled. This process requires our management to make assessments regarding the timing and probability of the ultimate tax impact of such items.

Net deferred tax assets are reduced by a valuation allowance if we believe it is more-likely-than-not such net deferred tax assets will not be realized. Establishing or reducing a tax valuation allowance requires us to make assessments about the timing of future events, including the probability of expected future taxable income and available tax planning strategies. At December 31, 2018, the aggregate valuation allowance provided against deferred tax assets was $1,205 million. The actual amount of deferred income tax benefits realized in future periods will likely differ from the net deferred tax assets reflected in our December 31, 2018 consolidated balance sheet due to, among other factors, possible future changes in income tax law or interpretations thereof in the jurisdictions in which we operate and differences between estimated and actual future taxable income. Any such factors could have a material effect on our current and deferred tax positions. A high degree of judgment is required to assess the impact of possible future outcomes on our current and deferred tax positions.

Tax laws in jurisdictions in which we have a presence are subject to varied interpretation, and tax positions we may take could be subject to significant uncertainty regarding whether the position will be ultimately sustained after review by the relevant tax authority. We recognize the financial statement effects of a tax position when it is more-likely-than-not, based on technical merits, that the position will be sustained upon examination. The determination of whether the tax position meets the more-likely-than-

not threshold requires a facts-based judgment using all information available. In a number of cases, we have concluded that the more-likely-than-not threshold is not met and, accordingly, the amount of tax benefit recognized in our consolidated financial statements is different than the amount taken or expected to be taken in our tax returns. As of December 31, 2018, the amount of unrecognized tax benefits for financial reporting purposes, but taken or expected to be taken in our tax returns, was $23 million, all of which would have a favorable impact on our effective income tax rate if ultimately recognized, after considering amounts that we would expect to be offset by valuation allowances.

We are required to continually assess our tax positions, and the results of tax examinations or changes in judgment can result in substantial changes to our unrecognized tax benefits.

For additional information concerning our income taxes, see note 11 to our consolidated financial statements.

Independent Auditor's Report

The Board of Directors
Cable & Wireless Communications Limited:

We have audited the accompanying consolidated financial statements of Cable & Wireless Communications Limited and its subsidiaries, which comprise the consolidated balance sheets as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive loss, equity, and cash flows for the years then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Cable & Wireless Communications Limited and its subsidiaries as of December 31, 2018 and 2017, and the results of their operations and their cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in Note 2 to the consolidated financial statements, Cable & Wireless Communications Limited has changed its method of accounting for revenue from contracts with customers in 2018 due to the adoption of Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers.

(signed) KPMG LLP

Denver, Colorado
March 12, 2019

CABLE & WIRELESS COMMUNICATIONS LIMITED
CONSOLIDATED BALANCE SHEETS

	December 31, 2018	December 31, 2017
	in millions	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 416.2	$ 266.1
Trade receivables, net of allowances of $106.2 million and $102.9 million, respectively	481.0	442.1
Prepaid expenses	56.9	46.3
Other current assets	277.7	176.9
Total current assets	1,231.8	931.4
Goodwill	4,325.6	4,962.5
Property and equipment, net	2,941.3	3,048.1
Intangible assets subject to amortization, net	1,040.2	1,229.5
Other assets, net	652.6	465.5
Total assets	$ 10,191.5	$ 10,637.0
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 150.0	$ 127.0
Current portion of deferred revenue	111.1	92.4
Current portion of debt and capital lease obligations	201.3	165.6
Accrued capital expenditures	48.6	64.8
Accrued interest	59.3	57.3
Other accrued and current liabilities	512.3	454.0
Total current liabilities	1,082.6	961.1
Long-term debt and capital lease obligations	3,836.3	3,758.6
Deferred tax liabilities	338.4	345.9
Long-term deferred revenue	238.5	254.2
Other long-term liabilities	315.3	151.3
Total liabilities	5,811.1	5,471.1
Commitments and contingencies		
Equity:		
Parent equity:		
Share capital	0.1	0.1
Accumulated net contributions	4,400.6	4,413.2
Accumulated deficit	(894.0)	(482.1)
Accumulated other comprehensive loss, net of taxes	(111.9)	(79.9)
Total parent equity	3,394.8	3,851.3
Noncontrolling interests	985.6	1,314.6
Total equity	4,380.4	5,165.9
Total liabilities and equity	$ 10,191.5	$ 10,637.0

The accompanying notes are an integral part of these consolidated financial statements.

CABLE & WIRELESS COMMUNICATIONS LIMITED

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31,	
	2018	2017
	in millions	
Revenue	$ 2,333.1	$ 2,322.1
Operating costs and expenses (exclusive of depreciation and amortization, shown separately below):		
Programming and other direct costs of services	531.8	541.4
Other operating	417.5	450.8
Selling, general and administrative (**SG&A**)	491.5	475.9
Business interruption loss recovery	(11.0)	—
Related-party fees and allocations	27.5	4.1
Depreciation and amortization	620.0	592.3
Impairment, restructuring and other operating items, net	632.2	482.1
	2,709.5	2,546.6
Operating loss	(376.4)	(224.5)
Non-operating income (expense):		
Interest expense	(261.4)	(224.3)
Interest income	9.1	8.8
Realized and unrealized gains (losses) on derivative instruments, net	(15.8)	2.9
Foreign currency transaction losses, net	(12.8)	(17.5)
Losses on debt modification and extinguishment, net	(26.0)	(48.9)
Other income (expense), net	(8.4)	19.2
	(315.3)	(259.8)
Loss before income taxes	(691.7)	(484.3)
Income tax expense	(3.5)	(68.6)
Net loss	(695.2)	(552.9)
Net loss attributable to noncontrolling interests	294.2	10.1
Net loss attributable to parent	$ (401.0)	$ (542.8)

The accompanying notes are an integral part of these consolidated financial statements.

CABLE & WIRELESS COMMUNICATIONS LIMITED

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year ended December 31,	
	2018	2017
	in millions	
Net loss	$ (695.2)	$ (552.9)
Other comprehensive earnings (loss), net of taxes:		
Foreign currency translation adjustments	(70.3)	(2.8)
Pension-related adjustments	31.9	(18.8)
Unrealized gains (losses) on available-for-sale investments	(2.1)	3.5
Other comprehensive loss	(40.5)	(18.1)
Comprehensive loss	(735.7)	(571.0)
Comprehensive loss attributable to noncontrolling interests	302.7	9.1
Comprehensive loss attributable to parent	$ (433.0)	$ (561.9)

The accompanying notes are an integral part of these consolidated financial statements.

CABLE & WIRELESS COMMUNICATIONS LIMITED

CONSOLIDATED STATEMENTS OF EQUITY

	Parent equity						
	Share capital	Accumulated net contributions	Accumulated deficit	Accumulated other comprehensive loss, net of taxes	Total parent equity	Non-controlling interests	Total equity
	in millions						
Balance at January 1, 2017	$ 0.1	$ 4,466.9	$ 60.7	$ (60.8)	$ 4,466.9	$ 1,409.2	$ 5,876.1
Net loss	—	—	(542.8)	—	(542.8)	(10.1)	(552.9)
Other comprehensive loss	—	—	—	(19.1)	(19.1)	1.0	(18.1)
Distributions to Liberty Global	—	(73.4)	—	—	(73.4)	—	(73.4)
C&W Barbados NCI Acquisition	—	14.6	—	—	14.6	(54.2)	(39.6)
Distributions to noncontrolling interest owners	—	—	—	—	—	(31.3)	(31.3)
Shared-based compensation	—	7.0	—	—	7.0	—	7.0
Other	—	(1.9)	—	—	(1.9)	—	(1.9)
Balance at December 31, 2017	$ 0.1	$ 4,413.2	$ (482.1)	$ (79.9)	$ 3,851.3	$ 1,314.6	$ 5,165.9
Balance at January 1, 2018	$ 0.1	$ 4,413.2	$ (482.1)	$ (79.9)	$ 3,851.3	$ 1,314.6	$ 5,165.9
Accounting change (note 2)	—	—	(10.9)	—	(10.9)	3.6	(7.3)
Balance at January 1, 2018, as adjusted for accounting change	0.1	4,413.2	(493.0)	(79.9)	3,840.4	1,318.2	5,158.6
Net loss	—	—	(401.0)	—	(401.0)	(294.2)	(695.2)
Other comprehensive loss	—	—	—	(39.2)	(39.2)	(1.3)	(40.5)
Distributions to noncontrolling interest owners	—	—	—	—	—	(22.7)	(22.7)
C&W Jamaica NCI Acquisition	—	(13.7)	—	7.2	(6.5)	(15.1)	(21.6)
Other	—	1.1	—	—	1.1	0.7	1.8
Balance at December 31, 2018	$ 0.1	$ 4,400.6	$ (894.0)	$ (111.9)	$ 3,394.8	$ 985.6	$ 4,380.4

The accompanying notes are an integral part of these consolidated financial statements.

CABLE & WIRELESS COMMUNICATIONS LIMITED

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31,	
	2018	2017
	in millions	
Cash flows from operating activities:		
Net loss	$ (695.2)	$ (552.9)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Non-cash share-based compensation expense	—	7.8
Related-party fees and allocations	27.5	4.1
Depreciation and amortization	620.0	592.3
Impairment	615.0	458.0
Amortization of debt financing costs, premiums and discounts, net	(6.9)	(17.7)
Realized and unrealized losses (gains) on derivative instruments, net	15.8	(2.9)
Foreign currency transaction losses, net	12.8	17.5
Unrealized loss due to change in fair value of investment	16.4	—
Losses on debt modification and extinguishment, net	26.0	48.9
Deferred income tax benefit	(51.3)	(23.8)
Changes in operating assets and liabilities:		
Receivables and other operating assets	(56.9)	63.6
Payables and accruals	(34.2)	(279.8)
Net cash provided by operating activities	489.0	315.1
Cash flows from investing activities:		
Capital expenditures	(380.9)	(405.1)
Loans to related parties	(40.0)	—
Recovery on damaged or destroyed property and equipment	6.6	—
Other investing activities, net	0.3	(4.0)
Net cash used by investing activities	(414.0)	(409.1)
Cash flows from financing activities:		
Borrowings of debt	738.1	1,677.1
Repayments of debt and capital lease obligations	(616.8)	(1,410.3)
Payment of financing costs and debt premiums	(23.7)	(103.1)
Distributions to noncontrolling interest owners	(22.7)	(31.3)
Cash payment related to C&W Jamaica NCI Acquisition	(19.7)	—
Cash payment related to C&W Barbados NCI Acquisition	(1.2)	(32.3)
Other financing activities, net	(1.6)	0.5
Net cash provided by financing activities	52.4	100.6
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(4.6)	(1.6)
Net increase in cash, cash equivalents and restricted cash	122.8	5.0
Cash, cash equivalents and restricted cash:		
Beginning of year	304.4	299.4
End of year	$ 427.2	$ 304.4
Cash paid for interest	$ 244.0	$ 237.0
Net cash paid for taxes	$ 91.4	$ 75.9

The accompanying notes are an integral part of these consolidated financial statements.

(1) Basis of Presentation

Organization

Cable & Wireless Communications Limited (**C&W**) is a provider of mobile, fixed and subsea telecommunications services to (i) residential and business-to-business (**B2B**) customers in 18 countries, primarily in Latin America and the Caribbean, (ii) B2B services in certain other countries in Latin America and the Caribbean and (iii) wholesale communication services over our subsea and terrestrial fiber optic cable networks that connect over 40 markets in the region.

We own less than 100% of certain of our consolidated subsidiaries, including Cable & Wireless Panama, SA (**C&W Panama**) (a 49.0%-owned entity that owns most of our operations in Panama), The Bahamas Telecommunications Company Limited (**BTC**) (a 49.0%-owned entity that owns all of our operations in the Bahamas), and Cable & Wireless Jamaica Limited (**C&W Jamaica**) (a 92.3%-owned entity that owns the majority of our operations in Jamaica).

Split-Off of Liberty Latin America from Liberty Global

Prior to December 29, 2017, we were a wholly-owned subsidiary of Liberty Global plc (**Liberty Global**). On December 29, 2017, Liberty Global completed a split-off of its former wholly-owned subsidiary, Liberty Latin America Ltd. (**Liberty Latin America**) (the **Split-Off**). C&W is a wholly-owned subsidiary of LGE Coral Holdco Limited (**LGE Coral Holdco**), a subsidiary of Liberty Latin America. In these notes, the terms "C&W," "**we**," "**our**," "**our company**" and "**us**" may refer, as the context requires, to C&W or collectively to C&W and its subsidiaries.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (**U.S. GAAP**). These financial statements reflect the new basis of accounting associated with the acquisition of C&W by Liberty Global in 2016 (the **Liberty Global Transaction**). The new basis of accounting was applied using the acquisition method of accounting, whereby the total purchase price was allocated to the acquired identifiable net assets based on assessments of their respective fair values, and the excess of the purchase price over the fair values of these identifiable net assets was allocated to goodwill.

Unless otherwise indicated, ownership percentages and convenience translations into United States (**U.S.**) dollars are calculated as of December 31, 2018.

These consolidated financial statements reflect our consideration of the accounting and disclosure implications of subsequent events through March 12, 2019, the date of issuance.

(2) Accounting Changes and Recent Accounting Pronouncements

Accounting Changes

ASU 2014-09

In May 2014, the Financial Accounting Standards Board (**FASB**) issued Accounting Standards Update (**ASU**) No. 2014-09, *Revenue from Contracts with Customers* (**ASU 2014-09**), which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. We adopted ASU 2014-09 effective January 1, 2018 by recording the cumulative effect to the opening balance of our accumulated deficit. We applied the new standard to contracts that were not complete as of January 1, 2018. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

The most significant impacts of ASU 2014-09 on our revenue recognition policies relate to our accounting for (i) long-term capacity contracts, (ii) subsidized handset plans and (iii) certain installation and other upfront fees, each as set forth below:

- We enter into certain long-term capacity contracts with customers where the customer pays the transaction consideration at inception of the contract. Under previous accounting standards, we did not impute interest for advance payments from customers related to services that are provided over time. Under ASU 2014-09, payment received from a customer significantly in advance of the provision of services is indicative of a financing component within the contract. If the

financing component is significant, interest expense is accreted over the life of the contract with a corresponding increase to revenue.

- ASU 2014-09 requires the identification of deliverables in contracts with customers that qualify as performance obligations. The transaction price consideration from customers is allocated to each performance obligation under the contract on the basis of relative standalone selling price. Under previous accounting standards, when we offered discounted equipment, such as handsets under a subsidized contract, upfront revenue recognition was limited to the upfront cash collected from the customer as the remaining monthly fees to be received from the customer, including fees associated with the equipment, were contingent upon delivering future airtime. This limitation is not applied under ASU 2014-09. The primary impact on revenue reporting is that when we sell discounted equipment together with airtime services to customers, revenue allocated to equipment and recognized when control of the device passes to the customer will increase and revenue recognized as services are delivered will decrease.

- When we enter into contracts to provide services to our customers, we often charge installation or other upfront fees. Under previous accounting standards, installation fees related to services provided over our fixed networks were recognized as revenue during the period in which the installation occurred to the extent those fees were equal to or less than direct selling costs. Under ASU 2014-09, these fees are generally deferred and recognized as revenue over the contractual period for those contracts with substantive termination penalties, or for the period of time the upfront fees convey a material right for month-to-month contracts and contracts that do not include substantive termination penalties.

ASU 2014-09 also impacted our accounting for certain upfront costs directly associated with obtaining and fulfilling customer contracts. Under our previous policy, these costs were expensed as incurred unless the costs were in the scope of other accounting standards that allowed for capitalization. Under ASU 2014-09, the upfront costs associated with contracts that have substantive termination penalties and a term of longer than one year are recognized as assets and amortized to other operating expenses over the applicable period benefited.

We implemented internal controls to ensure we adequately evaluated our contracts and properly assessed the impact of ASU 2014-09 on our consolidated financial statements. We do not believe such new controls represent significant changes to our internal control over financial reporting.

For information regarding changes to our accounting policies following the adoption of ASU 2014-09 and our contract assets and deferred revenue balances, see note 3. For our disaggregated revenue by product, see note 18.

The cumulative effect of the changes made to our consolidated balance sheet as of January 1, 2018 is as follows:

	Balance at December 31, 2017	Cumulative catch up adjustments upon adoption	Balance at January 1, 2018
		in millions	
Assets:			
Other current assets	$ 176.9	$ 15.5	$ 192.4
Other assets, net	$ 465.5	$ 15.6	$ 481.1
Liabilities:			
Current portion of deferred revenue	$ 92.4	$ 12.9	$ 105.3
Long-term deferred revenue	$ 254.2	$ 5.9	$ 260.1
Other long-term liabilities	$ 151.3	$ 19.6	$ 170.9
Equity:			
Accumulated deficit	$ (482.1)	$ (10.9)	$ (493.0)
Noncontrolling interests	$ 1,314.6	$ 3.6	$ 1,318.2

The impact of our adoption of ASU 2014-09 to our consolidated statement of operations for the year ended December 31, 2018 is as follows:

	Before adoption of ASU 2014-09	Impact of ASU 2014-09 Increase (decrease)	As reported
		in millions	
Revenue	$ 2,323.7	$ 9.4	$ 2,333.1
Operating costs and expenses – selling, general and administrative	$ 492.1	$ (0.6)	$ 491.5
Non-operating expense – interest expense	$ 242.3	$ 19.1	$ 261.4
Income tax expense	$ 4.9	$ (1.4)	$ 3.5
Net loss	$ 687.5	$ 7.7	$ 695.2

ASU 2016-18

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows–Restricted Cash* (**ASU 2016-18**), which addresses the presentation of restricted cash in the statement of cash flows. This ASU requires that the statement of cash flows reflect the change in the beginning-of-period and end-of-period totals of cash, cash equivalents and restricted cash balances for all periods presented. We adopted ASU 2016-18 on January 1, 2018, which resulted in an increase (decrease) to our operating and financing cash flows of ($1 million) and $11 million, respectively, during 2017. At December 31, 2018 and 2017, our restricted cash balances were $11 million and $38 million, respectively.

ASU 2017-04

In January 2017, the FASB issued ASU No. 2017-04, *Simplifying the Test for Goodwill Impairment* (**ASU 2017-04**), which eliminates the requirement to estimate the implied fair value of a reporting unit's goodwill as determined following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Instead, a company should recognize any goodwill impairment by comparing the fair value of a reporting unit to its carrying amount. We early-adopted ASU 2017-04 effective January 1, 2017. The adoption of ASU 2017-04 reduces the complexity surrounding the measurement of goodwill impairments.

ASU 2017-07

In March 2017, the FASB issued ASU No. 2017-07, *Compensation—Retirement Benefits—Improving the Presentation of the Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* (**ASU 2017-07**), which includes changes to the presentation of periodic benefit cost components in our consolidated statements of operations. Under ASU 2017-07, we continue to present the service component of our net benefit cost as a component of operating income (loss) but present the other components of our net benefit cost computation, which can include credits, within non-operating income (expense) in our consolidated statements of operations. We adopted ASU 2017-07 on January 1, 2018. The change in presentation to our consolidated statements of operations from ASU 2017-07 was applied on a retrospective basis. As a result of the adoption of ASU 2017-07, we have presented pension-related credits in other income (expense), net, in our consolidated statements of operations that aggregated $12 million and $15 million during 2018 and 2017, respectively.

ASU 2018-13

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* (**ASU 2018-13**). ASU 2018-13 modifies certain disclosure requirements on fair value measurements, including (i) clarifying narrative disclosure regarding measurement uncertainty from the use of unobservable inputs, if those inputs reasonably could have been different as of the reporting date, (ii) adding certain quantitative disclosures, including (a) changes in unrealized gains and losses for the period included in other comprehensive income for recurring Level 3 fair value measurements held at the end of the reporting period and (b) the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and (iii) removing certain fair value measurement disclosure

requirements, including (a) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, (b) the policy for timing of transfers between levels of the fair value hierarchy and (c) the valuation processes for Level 3 fair value measurements. The amendments in ASU 2018-13 are effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. We are permitted to early adopt any removed or modified disclosures and delay adoption of the additional disclosures until their effective date. As of December 31, 2018, we have removed certain fair value measurement disclosures from our consolidated financial statements as permitted by ASU 2018-13. Although we are currently evaluating the effect the remaining disclosure requirements of ASU 2018-13 will have on our consolidated financial statements, we do not expect the impact to have a material effect.

Recent Accounting Pronouncements

ASU 2016-02

In February 2016, the FASB issued ASU No. 2016-02, *Leases* (**ASU 2016-02**), which, for most leases, will result in lessees recognizing right-of-use assets and lease liabilities on the balance sheet and additional disclosures. ASU 2016-02, as amended by ASU No. 2018-11, *Targeted Improvements*, requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using one of two modified retrospective approaches. A number of optional practical expedients may be applied in transition. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2019, with early adoption permitted. We will adopt ASU 2016-02 on January 1, 2019 by recording the cumulative effect of adoption to our accumulated deficit.

Although we are currently evaluating the effect that ASU 2016-02 will have on our consolidated financial statements, the main impact of the adoption of this standard will be the recognition of right-of-use assets and lease liabilities in our consolidated balance sheet for those leases classified as operating leases under current U.S. GAAP. We do not intend to recognize right-of-use assets or lease liabilities for leases with a term of 12 months or less, as permitted by the short-term lease practical expedient in the standard. In transition, we plan to apply the practical expedients that permit us not to reassess (i) whether expired or existing contracts contain a lease under the new standard, (ii) the lease classification for expired or existing leases, (iii) whether previously-capitalized initial direct costs would qualify for capitalization under the new standard and (iv) whether existing or expired land easements that were not previously accounted for as leases are or contain a lease. We also plan to apply the practical expedient that permits us to account for customer service revenue contracts that include both non-lease and lease components as a single component in all instances where the non-lease component is the predominant component of the arrangement and the other applicable criteria are met. In addition, we do not intend to use hindsight during transition.

We expect the right-of-use assets and lease obligations recognized in connection with the adoption of ASU 2016-02 will not exceed 2% of our total assets as of January 1, 2019. In addition, we do not expect ASU 2016-02 will have a significant impact on our consolidated statements of operations or cash flows. For a summary of our undiscounted future minimum lease payments under non-cancellable operating leases as of December 31, 2018, see note 17.

ASU 2018-14

In August 2018, the FASB issued ASU No. 2018-14, *Disclosure Framework-Changes to the Disclosure Requirements for Defined Benefit Plans* (**ASU 2018-14**), which removes and modifies certain existing disclosure requirements and adds new disclosure requirements related to employer sponsored defined benefit pension or other postretirement plans. ASU 2018-14 is effective for annual reporting periods after December 15, 2021, with early adoption permitted. We are currently evaluating the effect that ASU 2018-14 will have on our disclosures.

ASU 2018-15

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles—Goodwill and Other—Internal-Use Software—Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (***ASU 2018-15***).* ASU 2018-15 provides additional guidance on ASU No. 2015-05, *Intangibles—Goodwill and Other—Internal-Use Software—Customer's Accounting for Fees Paid in a Cloud Computing Arrangement,* which was issued to help entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (hosting arrangement) by providing guidance for determining when the arrangement includes a software license. ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The guidance (i) provides

criteria for determining which implementation costs to capitalize as an asset related to the service contract and which costs to expense, (ii) requires an entity (customer) to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the term of the hosting arrangement and (iii) clarifies the presentation requirements for reporting such costs in the entity's financial statements. ASU 2018-15 is effective for annual reporting periods beginning after December 15, 2020, with early adoption permitted. ASU 2018-15 should be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption. We are currently evaluating the method and date of adoption, as well as the effect that ASU 2018-15 will have on our consolidated financial statements and related disclosures.

ASU 2018-18

In November 2018, the FASB issued ASU No. 2018-18, *Collaborative Arrangements—Clarifying the interaction between Topic 808 and Topic 606 (***ASU 2018-18***)*. ASU 2018-18 clarifies that certain transactions between participants in a collaborative arrangement should be accounted for as revenue when the counterparty is a customer. If the counterparty in a transaction is not a customer, ASU 2018-18 precludes the presentation of consideration from that collaborative arrangement as revenue. In addition, the guidance amends ASC 808—*Collaborative Arrangements,* to include the unit-of account guidance under ASU 2014-09. ASU 2018-18 is effective for annual reporting periods beginning after December 15, 2020, with early adoption permitted. The standard is required to be adopted retrospectively to the date of the initial application of ASU 2014-09, with the cumulative effect recorded as an adjustment to the opening balance of retained earnings of the later of (i) the earliest annual period presented, or (ii) the annual period that includes the date of the entity's initial application of ASU 2014-09. We are currently evaluating the effect that ASU 2018-18 will have on our consolidated financial statements and related disclosures.

(3) Summary of Significant Accounting Policies

Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Estimates and assumptions are used in accounting for, among other things, the valuation of acquisition-related assets and liabilities, allowances for uncollectible accounts, programming and copyright expenses, deferred income taxes and related valuation allowances, loss contingencies, fair value measurements, impairment assessments, capitalization of internal costs associated with construction and installation activities, useful lives of long-lived assets and actuarial liabilities associated with certain benefit plans. Actual results could differ from those estimates.

Principles of Consolidation

The accompanying consolidated financial statements include our accounts and the accounts of all voting interest entities where we exercise a controlling financial interest through the ownership of a direct or indirect controlling voting interest and variable interest entities for which our company is the primary beneficiary. Intercompany accounts have been eliminated in consolidation.

Cash and Cash Equivalents and Restricted Cash

Cash equivalents consist of money market funds and other investments that are readily convertible into cash and have maturities of three months or less at the time of acquisition. We record money market funds at the net asset value as there are no restrictions on our ability, contractual or otherwise, to redeem our investments.

Restricted cash consists of cash held in restricted accounts, including cash held as collateral for debt and other compensating balances. Cash that is restricted to a specific use is classified as current or long-term based on the expected timing of the disbursement. At December 31, 2018 and 2017, our current and long-term restricted cash balances aggregated $11 million and $38 million, respectively.

Trade Receivables

Our trade receivables are reported net of an allowance for doubtful accounts. The allowance for doubtful accounts is based upon our assessment of probable loss related to uncollectible accounts receivable. We use a number of factors in determining the allowance, including, among other things, collection trends, prevailing and anticipated economic conditions and specific customer credit risk. The allowance is maintained until either payment is received or the likelihood of collection is considered to be remote.

Concentration of credit risk with respect to trade receivables is limited due to the large number of customers and their dispersion across many different countries, with the exception of $55 million and $54 million at December 31, 2018 and 2017, respectively, due from a single government.

Investments

We hold an equity security in Telecommunications Services of Trinidad and Tobago Limited (**TSTT**) for which the fair value is not readily determinable. Accordingly, we measure this investment at cost minus impairment, plus or minus changes resulting from observable price changes. When indicators of impairment exist, we estimate the fair value and record an impairment charge if the carrying value of the investment exceeds its estimated fair value. Any impairment charges are recorded in other income (expense), net, in our consolidated statements of operations.

We account for our investment in United Kingdom (**U.K.**) Government Gilts using the available-for-sale method. Available-for-sale securities are measured at fair value. Changes in the fair value of available-for-sale securities are reflected in other comprehensive income or loss until sold or other-than-temporarily impaired, at which time the amounts are reclassified from accumulated other comprehensive income or loss into non-operating income or expense in our consolidated statements of operations.

For additional information regarding our fair value measurements, see note 6. For additional information regarding these investments, see notes 7 and 16.

Financial Instruments

Due to the short maturities of cash and cash equivalents, restricted cash, short-term liquid investments, trade and other receivables, other current assets, accounts payable, accrued liabilities and other accrued and current liabilities, their respective carrying values approximate their respective fair values. For information concerning the fair values of our derivative and debt instruments, see notes 5 and 10, respectively. For information regarding how we arrive at certain of our fair value measurements, see note 6.

Derivative Instruments

All derivative instruments, whether designated as hedging relationships or not, are recorded on the consolidated balance sheets at fair value. If the derivative instrument is not designated as a hedge, changes in the fair value of the derivative instrument are recognized in earnings. If the derivative instrument is designated as a cash flow hedge, the effective portions of changes in the fair value of the derivative instrument are recorded in other comprehensive earnings or loss and subsequently reclassified into our consolidated statements of operations when the hedged forecasted transaction affects earnings. Ineffective portions of changes in the fair value of cash flow hedges are recognized in realized and unrealized gains (losses) on derivative instruments in our consolidated statements of operations. We do not apply hedge accounting to our derivative instruments. Accordingly, changes in the fair values of our derivative instruments are recorded in realized and unrealized gains or losses on derivative instruments in our consolidated statements of operations.

The net cash received or paid related to our derivative instruments is classified as an operating, investing or financing activity in our consolidated statements of cash flows based on the objective of the derivative instrument and the classification of the applicable underlying cash flows. For cross-currency and interest rate derivative contracts, the net cash paid or received related to current interest is classified as an operating activity in our consolidated statements of cash flows. For cross-currency derivative contracts, the net cash paid or received related to principal is classified as a financing activity in our consolidated statements of cash flows. For derivative contracts that are terminated prior to maturity, the cash paid or received upon termination that relates to future periods is classified as a financing activity in our consolidated statements of cash flows.

For information regarding our derivative instruments, see note 5.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. We capitalize costs associated with the construction of new cable and mobile transmission and distribution facilities and the installation of new cable services. The nature and amount of labor and other costs to be capitalized with respect to construction and installation activities involves significant judgment. In addition to direct external and internal labor and materials, we also capitalize other costs directly attributable to our construction and installation activities, including dispatch costs, quality-control costs, vehicle-related costs and certain warehouse-related costs.

The capitalization of these costs is based on time sheets, time studies, standard costs, call tracking systems and other verifiable means that directly link the costs incurred with the applicable capitalizable activity. We continuously monitor the appropriateness of our capitalization policies and update the policies when necessary to respond to changes in facts and circumstances, such as the development of new products and services and changes in the manner that installations or construction activities are performed. Installation activities that are capitalized include (i) the initial connection (or drop) from our cable system to a customer location, (ii) the replacement of a drop and (iii) the installation of equipment for additional services, such as digital cable, telephone or broadband internet service. The costs of other customer-facing activities, such as reconnecting and disconnecting customer locations and repairing or maintaining drops, are expensed as incurred. Interest capitalized with respect to construction activities was not material during any of the periods presented.

We capitalize internal and external costs directly associated with the development of internal-use software. Capitalized internal-use software is included as a component of property and equipment. We also capitalize costs associated with the purchase of software licenses. Software obtained in a hosting arrangement is expensed as incurred over the life of the service contract, unless we have the right to take possession of the software at any time without significant penalty and it is feasible to run the software on our own hardware or contract with another party unrelated to the vendor to host the software. Maintenance and training costs, as well as costs incurred during the preliminary stage of an internal-use software development project, are expensed as incurred.

Depreciation is computed using the straight-line method over the estimated useful life of the underlying asset. Equipment under capital leases is amortized on a straight-line basis over the shorter of the lease term or estimated useful life of the asset and is included in depreciation and amortization in our consolidated statements of operations. Useful lives used to depreciate our property and equipment are assessed periodically and are adjusted when warranted. The useful lives of cable and mobile distribution systems that are undergoing a rebuild are adjusted such that property and equipment to be retired will be fully depreciated by the time the rebuild is completed. For additional information regarding the useful lives of our property and equipment, see note 9.

Additions, replacements and improvements that extend the asset life are capitalized. Repairs and maintenance are expensed as incurred.

We recognize a liability for asset retirement obligations in the period in which it is incurred if sufficient information is available to make a reasonable estimate of fair values. Asset retirement obligations primarily relate to assets placed on leased wireless towers and other premises. Asset retirement obligations of $37 million and $36 million at December 31, 2018 and 2017, respectively, are included in other long-term liabilities in our consolidated balance sheets.

Intangible Assets

Our primary intangible assets relate to goodwill and customer relationships. Goodwill represents the excess purchase price over the fair value of the identifiable net assets acquired in a business combination. Customer relationships are initially recorded at their fair values in connection with business combinations.

Goodwill and other intangible assets with indefinite useful lives are not amortized, but instead are tested for impairment at least annually. Intangible assets with finite lives are amortized on a straight-line basis over their respective estimated useful lives to their estimated residual values and reviewed for impairment.

For additional information regarding the useful lives of our intangible assets, see note 9.

Impairment of Property and Equipment and Intangible Assets

When circumstances warrant, we review the carrying amounts of our property and equipment and our intangible assets (other than goodwill) to determine whether such carrying amounts continue to be recoverable. Such changes in circumstance may include (i) the impact of natural disasters, such as hurricanes, (ii) an expectation of a sale or disposal of a long-lived asset or asset group, (iii) adverse changes in market or competitive conditions, (iv) an adverse change in legal factors or business climate in the markets in which we operate and (v) operating or cash flow losses. For purposes of impairment testing, long-lived assets are grouped at the lowest level for which cash flows are largely independent of other assets and liabilities, generally at or below the reporting unit level (see below). If the carrying amount of the asset or asset group is greater than the expected undiscounted cash flows to be generated by such asset or asset group, an impairment adjustment is recognized. Such adjustment is measured by the amount that the carrying value of such asset or asset group exceeds its fair value. We generally measure fair value by considering (i) sale prices for similar assets, (ii) discounted estimated future cash flows using an appropriate discount rate and/or (iii) estimated replacement cost. Assets to be disposed of are recorded at the lower of their carrying amount or fair value less costs to sell.

We evaluate goodwill for impairment at least annually on October 1 and whenever facts and circumstances indicate that their carrying amounts may not be recoverable. For impairment evaluations with respect to goodwill we first make a qualitative assessment to determine if the goodwill may be impaired. If it is more-likely-than-not that a reporting unit's fair value is less than its carrying value, we then compare the fair value of the reporting unit to its respective carrying amount. A reporting unit is an operating segment or one level below an operating segment (referred to as a "component"). Goodwill impairment is recorded as the excess of a reporting unit's carrying value over its fair value and is charged to operations as an impairment loss. For additional information regarding the fair values of our property and equipment and intangible assets, see note 6. For additional information regarding impairments recorded during 2018 and 2017, see note 9.

Contract Assets

When we transfer goods or services to a customer but do not have an unconditional right to payment, we record a contract asset. Contract assets are reclassified to trade receivables, net in our consolidated balance sheet at the point in time we have the unconditional right to payment. Our contract assets were $9 million and $13 million as of December 31, 2018 and January 1, 2018, respectively. The change in our contract assets during 2018 was not material. The current and long-term portion of contract assets are included in other current assets and other assets, net, respectively, in our consolidated balance sheet.

Deferred Contract Costs

Incremental costs to obtain a contract with a customer, such as incremental sales commissions, are recognized as an asset and amortized to SG&A expenses over the applicable period benefited, which is the longer of the contract life or the economic life of the commission. If, however, the amortization period is one year or less, we expense such costs in the period incurred. Costs to obtain a contract that would have been incurred regardless of whether the contract was obtained are recognized as an expense when incurred. Our deferred contract costs were $9 million as of both December 31, 2018 and January 1, 2018. The change in our deferred contract costs during 2018 was not material. The current and long-term portion of deferred contract costs are included in other current assets and other assets, net, respectively, in our consolidated balance sheet.

Deferred Revenue

We record deferred revenue when we have received payment prior to transferring goods or services to a customer. Deferred revenue primarily relates to (i) advanced payments on fixed subscription services, mobile airtime services and long-term capacity contracts and (ii) deferred installation and other upfront fees. Our aggregate current and long-term deferred revenue as of December 31, 2018 and 2017 was $350 million and $347 million, respectively. We recorded an aggregate of $19 million of current and long-term deferred revenue on January 1, 2018 upon the adoption of ASU 2014-09. The remaining change in the current portion and long-term deferred revenue balances during 2018 was not material.

Income Taxes

The income taxes of C&W are presented on a standalone basis, and each tax paying entity or group within C&W is presented on a separate return basis. Income taxes are accounted for under the asset and liability method. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts and income tax basis of assets and liabilities and the expected benefits of utilizing net operating loss and tax credit carryforwards, using enacted tax rates in effect for each taxing jurisdiction in which we operate for the year in which those temporary differences are expected to be recovered or settled. We recognize the financial statement effects of a tax position when it is more-likely-than-not, based on technical merits, that the position will be sustained upon examination. Net deferred tax assets are then reduced by a valuation allowance if we believe it is more-likely-than-not that such net deferred tax assets will not be realized. Certain of our valuation allowances and tax uncertainties are associated with entities that we acquired in business combinations. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in earnings in the period that includes the enactment date. Deferred tax liabilities related to investments in foreign entities and foreign corporate joint ventures that are essentially permanent in duration are not recognized until it becomes apparent that such amounts will reverse in the foreseeable future. In order to be considered essentially permanent in duration, sufficient evidence must indicate that the foreign entity has invested or will invest its undistributed earnings indefinitely, or that earnings will be remitted in a tax-free liquidation. Interest and penalties related to income tax liabilities are included in income tax benefit or expense in our consolidated statements of operations.

For additional information regarding our income taxes, see note 11.

Employee Benefit Plans

Certain of our subsidiaries maintain various employee defined benefit plans. Defined benefit pension plan costs are determined using actuarial methods and are accounted for using the projected unit credit method, which incorporates management's best estimates of future salary levels, other cost escalations, retirement ages of employees, and other actuarial factors. Our net asset or liability in respect of defined benefit pension plans represents the fair value of the plan assets, less the present value of the defined benefit obligations. The fair value of plan assets and the projected benefit obligation for each plan are calculated annually by independent qualified actuaries. Defined benefit assets are only recognized to the extent they are deemed recoverable.

For additional information regarding our defined benefit plans, see note 16.

Certain of our subsidiaries participate in externally managed defined contribution pension plans. A defined contribution plan is a pension plan under which we have no further obligation once the fixed defined contribution has been paid to the third-party administrator of the plan. Contributions under our defined contribution pension plan are recognized as incurred in SG&A expense in our consolidated statements of operations.

Foreign Currency Translation and Transactions

The reporting currency of our company is the U.S. dollar. The functional currency of our foreign operations is the applicable local currency for each foreign entity. Assets and liabilities of our foreign subsidiaries (including intercompany balances for which settlement is not anticipated in the foreseeable future) are translated at the spot rate in effect at the applicable reporting date. With the exception of certain material transactions, the amounts reported in our consolidated statements of operations are translated at the average exchange rates in effect during the applicable period. The resulting unrealized cumulative translation adjustment, net of applicable income taxes, is recorded as a component of accumulated other comprehensive earnings or loss in our consolidated statements of equity. With the exception of certain material transactions, the cash flows from our operations in foreign countries are translated at the average rate for the applicable period in our consolidated statements of cash flows. The impacts of material transactions generally are recorded at the applicable spot rates in our consolidated statements of operations and cash flows. The effect of exchange rates on cash balances held in foreign currencies are separately reported in our consolidated statements of cash flows.

Transactions denominated in currencies other than our or our subsidiaries' functional currencies are recorded based on exchange rates at the time such transactions arise. Changes in exchange rates with respect to amounts recorded in our consolidated balance sheets related to these non-functional currency transactions result in transaction gains and losses that are reflected in our consolidated statements of operations as unrealized (based on the applicable period end exchange rates) or realized upon settlement of the transactions.

Revenue Recognition

We categorize revenue into two major categories: (i) residential revenue, which includes revenue from fixed and mobile services provided to residential customers, and (ii) B2B revenue, which includes B2B service and subsea network revenue. For additional information regarding our revenue by major category, see note 18. Our revenue recognition policies are as follows.

General. Most of our fixed and mobile residential contracts are not enforceable or do not contain substantive early termination penalties. Accordingly, revenue relating to these customers is recognized on a basis consistent with customers that are not subject to contracts.

Residential Fixed and B2B Service Revenue – Fixed Networks. We recognize revenue from video, broadband internet and fixed-line telephony services over our fixed networks to customers in the period the related residential fixed or B2B services are provided. Installation or other upfront fees related to services provided over our fixed networks are generally deferred and recognized as subscription revenue over the contractual period, or longer if the upfront fee results in a material renewal right. We defer upfront installation and certain nonrecurring fees received on B2B contracts where we maintain ownership of the installed equipment. The deferred fees are amortized into revenue on a straight-line basis over the term of the arrangement or the expected period of performance.

We may also sell video, broadband internet and fixed-line telephony services to our customers in bundled packages at a rate lower than if the customer purchased each product on a standalone basis. Arrangement consideration from bundled packages

generally is allocated proportionally to the individual service based on the relative standalone price for each respective product or service.

Mobile Revenue – General. Consideration from mobile contracts is allocated to airtime services and handset sales based on the relative standalone prices of each performance obligation.

Mobile Revenue – Airtime Services. We recognize revenue from mobile services in the period the related services are provided. Payments received from prepay customers are recorded as deferred revenue prior to the commencement of services and are recognized as revenue as the services are rendered or usage rights expire.

Mobile Revenue – Handset Revenue. Arrangement consideration allocated to handsets is recognized as revenue when the goods have been transferred to the customer. Revenue from mobile handset sales is included in residential mobile non-subscription revenue in our revenue by major category and was $40 million and $38 million for 2018 and 2017, respectively.

B2B Subsea Network Revenue – Long-term Capacity Contracts. We enter into certain long-term capacity contracts with customers where the customer either pays a fixed fee over time or prepays for the capacity upfront and pays a portion related to operating and maintenance of the network over time. We assess whether prepaid capacity contracts contain a significant financing component. If the financing component is significant, interest expense is accreted over the life of the contract using the effective interest method. The revenue associated with prepaid capacity contracts is deferred and generally recognized on a straight-line basis over the life of the contract. As of December 31, 2018, we have approximately $550 million of unfulfilled performance obligations relating to our long-term capacity contracts, primarily subsea contracts, that generally will be recognized as revenue over an average remaining life of seven years.

Sales, Use and Other Value-Added Taxes (**VAT**). Revenue is recorded net of applicable sales, use and other value-added taxes.

Litigation Costs

Legal fees and related litigation costs are expensed as incurred.

(4) Acquisitions

2017 Acquisition

In connection with the Liberty Global Transaction and our acquisition of Columbus International Inc. and its subsidiaries (collectively, **Columbus**) in 2015 (the **Columbus Acquisition**), certain entities (the **Carve-out Entities**) that hold licenses granted by the U.S. Federal Communications Commission (the **FCC**) were transferred to entities not controlled by C&W. The arrangements with respect to the Carve-out Entities, which were executed in connection with the Columbus Acquisition and the C&W Acquisition, contemplated that upon receipt of regulatory approval, we would acquire the Carve-out Entities. On March 8, 2017, the FCC granted its approval for our acquisition of the Carve-out Entities. Accordingly, on April 1, 2017, subsidiaries of C&W acquired the Carve-out Entities (the **Carve-out Acquisition**) for an aggregate purchase price of $86 million, which represents the amount due under notes receivable that were exchanged for the equity of the Carve-out Entities.

We have accounted for the Carve-out Acquisition using the acquisition method of accounting, whereby the total purchase price was allocated to the acquired identifiable net assets of the Carve-out Entities based on assessments of their respective fair values, and the excess of the purchase price over the fair values of these identifiable net assets was allocated to goodwill. A summary of the purchase price and opening consolidated balance sheet for the Carve-out Entities at the April 1, 2017 acquisition date is presented in the following table. The opening balance sheet presented below reflects our final purchase price allocation (in millions):

Cash and cash equivalents	$ 1.0
Other current assets	34.1
Property and equipment	156.1
Goodwill (a)	22.7
Deferred tax assets	20.5
Other accrued and current liabilities	(86.3)
Deferred tax liabilities	(32.5)
Other noncurrent liabilities	(29.4)
Total purchase price	$ 86.2

(a) The goodwill recognized in connection with the acquisition of the Carve-out Entities is primarily attributable to synergies arising from the acquisition.

(5) Derivative Instruments

In general, we seek to enter into derivative instruments to protect against (i) increases in the interest rates on our variable-rate debt and (ii) foreign currency movements, particularly with respect to borrowings that are denominated in a currency other than the functional currency of the borrowing entity. In this regard, we have entered into various derivative instruments to manage interest rate exposure and foreign currency exposure with respect to the U.S. dollar (**$**), the British pound sterling (**£**), the Colombian peso (**COP**) and the Jamaican dollar (**JMD**).

The following table provides details of the fair values of our derivative instrument assets and liabilities:

	December 31, 2018			December 31, 2017		
	Current (a)	Long-term (a)	Total	Current (a)	Long-term (a)	Total
			in millions			
Assets – cross-currency and interest rate derivative contracts (b)	$ 13.6	$ 35.5	$ 49.1	$ 0.8	$ 37.7	$ 38.5
Liabilities – cross-currency and interest rate derivative contracts (b)	$ 21.9	$ 29.1	$ 51.0	$ 21.4	$ 15.2	$ 36.6

(a) Our current derivative assets, current derivative liabilities, long-term derivative assets and long-term derivative liabilities are included in other current assets, other accrued and current liabilities, other assets, net, and other long-term liabilities, respectively, in our consolidated balance sheets.

(b) We consider credit risk relating to our and our counterparties' nonperformance in the fair value assessment of our derivative instruments. In all cases, the adjustments take into account offsetting liability or asset positions. The changes in the credit risk valuation adjustments associated with our cross-currency and interest rate derivative contracts resulted in net losses of $2 million and $1 million during 2018 and 2017, respectively. These amounts are included in realized and unrealized gains (losses) on derivative instruments, net, in our consolidated statements of operations. For further information regarding our fair value measurements, see note 6.

Our realized and unrealized gains (losses) on derivative instruments, net, of ($16 million) and $3 million for the years ended December 31, 2018 and 2017, respectively, are comprised of gains (losses) on our cross-currency and interest rate derivative contracts.

The following table sets forth the classification of the net cash inflows (outflows) of our derivative instruments:

	Year ended December 31,	
	2018	2017
	in millions	
Operating activities	$ (8.4)	$ (15.9)
Financing activities	(3.0)	—
Total	$ (11.4)	$ (15.9)

Counterparty Credit Risk

We are exposed to the risk that the counterparties to our derivative instruments will default on their obligations to us. We manage these credit risks through the evaluation and monitoring of the creditworthiness of, and concentration of risk with, the respective counterparties. In this regard, credit risk associated with our derivative instruments is spread across a relatively broad counterparty base of banks and financial institutions. Collateral has not been posted by either party under our derivative instruments. At December 31, 2018, our exposure to counterparty credit risk included derivative assets with an aggregate fair value of $28 million.

We have entered into derivative instruments under agreements with our counterparties that contain master netting arrangements that are applicable in the event of early termination by either party to such derivative instrument.

Details of our Derivative Instruments

Cross-currency Derivative Contracts

As noted above, we are exposed to foreign currency exchange rate risk in situations where our debt is denominated in a currency other than the functional currency of the operations whose cash flows support our ability to service, repay or refinance such debt. Although we generally seek to match the denomination of our borrowings with the functional currency of the operations that are supporting the respective borrowings, market conditions or other factors may cause us to enter into borrowing arrangements that are not denominated in the functional currency of the underlying operations (unmatched debt). Our policy is generally to provide for an economic hedge against foreign currency exchange rate movements, whenever possible and when cost effective to do so, by using derivative instruments to synthetically convert unmatched debt into the applicable underlying currency.

The following table sets forth the total notional amounts and the related weighted average remaining contractual lives of our cross-currency swap contracts, which are held by our wholly-owned subsidiary, Sable International Finance Limited (**Sable**), at December 31, 2018:

Notional amount due from counterparty	Notional amount due to counterparty	Weighted average remaining life
in millions		in years
$ 108.3	JMD 13,817.5	8.1
$ 56.3	COP 180,000.0	7.6
£ 83.6	$ 110.7	0.2

Interest Rate Derivative Contracts

Interest Rate Swaps

As noted above, we enter into interest rate swaps to protect against increases in the interest rates on our variable-rate debt. Pursuant to these derivative instruments, we typically pay fixed interest rates and receive variable interest rates on specified notional amounts. At December 31, 2018, the U.S. dollar equivalent of the notional amounts of our interest rate swap contracts was $2,975 million, which includes forward-starting derivative instruments, and the related weighted average remaining contractual life was 5.3 years.

Basis Swaps

Basis swaps involve the exchange of attributes used to calculate our floating interest rates, including (i) the benchmark rate, (ii) the underlying currency and/or (iii) the borrowing period. We typically enter into these swaps to optimize our interest rate profile based on our current evaluations of yield curves, our risk management policies and other factors. At December 31, 2018, the U.S. dollar equivalent of the notional amounts of our basis swaps was $1,875 million and the related weighted average remaining contractual life was 1 year.

Impact of Derivative Instruments on Borrowing Costs

The weighted average impact of the derivative instruments, excluding forward-starting derivative instruments, on our borrowing costs at December 31, 2018 was an increase of 3 basis points.

(6) Fair Value Measurements

General

We use the fair value method to account for our derivative instruments and the available-for-sale method to account for our investment in the U.K. Government Gilts. The reported fair values of our derivative instruments as of December 31, 2018 likely will not represent the value that will be paid or received upon the ultimate settlement or disposition of these assets and liabilities, as we expect that the values realized generally will be based on market conditions at the time of settlement, which may occur at the maturity of the derivative instrument or at the time of the repayment or refinancing of the underlying debt instrument.

U.S. GAAP provides for a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. Level 1 inputs are quoted market prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 2 inputs are inputs other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs for the asset or liability.

All of our Level 2 inputs (interest rate futures, swap rates and certain of the inputs for our weighted average cost of capital calculations) and certain of our Level 3 inputs (non-interest rate curves and credit spreads) are obtained from pricing services. These inputs, or interpolations or extrapolations thereof, are used in our internal models to calculate, among other items, yield curves, forward interest and currency rates and weighted average cost of capital rates. In the normal course of business, we receive market value assessments from the counterparties to our derivative contracts. Although we compare these assessments to our internal valuations and investigate unexpected differences, we do not otherwise rely on counterparty quotes to determine the fair values of our derivative instruments. The midpoints of applicable bid and ask ranges generally are used as inputs for our internal valuations.

Recurring Fair Value Measurements

Derivatives

In order to manage our interest rate and foreign currency exchange risk, we have entered into various derivative instruments, as further described in note 5. The recurring fair value measurements of these derivative instruments are determined using discounted cash flow models. Most of the inputs to these discounted cash flow models consist of, or are derived from, observable Level 2 data for substantially the full term of these derivative instruments. This observable data mostly includes interest rate futures and swap rates, which are retrieved or derived from available market data. Although we may extrapolate or interpolate this data, we do not otherwise alter this data in performing our valuations. We incorporate a credit risk valuation adjustment in our fair value measurements to estimate the impact of both our own nonperformance risk and the nonperformance risk of our counterparties. Our and our counterparties' credit spreads represent our most significant Level 3 inputs, and these inputs are used to derive the credit risk valuation adjustments with respect to these instruments. As we would not expect changes in our or our counterparties' credit spreads to have a significant impact on the valuations of these instruments, we have determined that these valuations fall under Level 2 of the fair value hierarchy. Our credit risk valuation adjustments with respect to our cross-currency and interest rate derivative contracts are quantified and further explained in note 5. Due to the lack of Level 2 inputs for the valuation of the U.S dollar to the Jamaican dollar cross-currency swaps (the **Sable Currency Swaps**) held by Sable, we believe this valuation falls under Level 3 of the fair value hierarchy. The Sable Currency Swaps are our only Level 3 financial instruments. The fair values of the Sable Currency Swaps at December 31, 2018 and 2017 were $36 million and $22 million, respectively, which are included

in other long-term liabilities in our consolidated balance sheets. The change in the fair values of the Sable Currency Swaps resulted in net losses of $14 million and $11 million during 2018 and 2017, respectively, which are reflected in realized and unrealized gains (losses) on derivative instruments, net, in our consolidated statements of operations.

Available-for-sale Investments

Our investment in the U.K. Government Gilts falls under Level 1 of the fair value hierarchy. At December 31, 2018 and 2017, the carrying values of our investment in the U.K. Government Gilts, which are included in other assets, net, in our consolidated balance sheets, were $35 million and $37 million, respectively.

Nonrecurring Fair Value Measurements

Fair value measurements are also used for purposes of nonrecurring valuations performed in connection with acquisition accounting and impairment assessments.

Acquisition Accounting

The nonrecurring valuations associated with acquisition accounting, which use significant unobservable inputs and therefore fall under Level 3 of the fair value hierarchy, primarily include the valuation of customer relationships and property and equipment, as further described below:

- *Customer relationships.* The valuation of customer relationships is primarily based on an excess earnings methodology, which is a form of a discounted cash flow analysis. The excess earnings methodology for customer relationship intangible assets requires us to estimate the specific cash flows expected from the acquired customer relationships, considering such factors as estimated customer life, the revenue expected to be generated over the life of the customer relationships, contributory asset charges and other factors.

- *Property and equipment*. Property and equipment is typically valued using a replacement or reproduction cost approach, considering factors such as current prices of the same or similar equipment, the age of the equipment and economic obsolescence.

During 2018, we performed no nonrecurring valuations related to acquisition accounting. During 2017, we performed nonrecurring valuations related to the the acquisition accounting for the Carve-out Acquisition.

Impairment Assessments

The nonrecurring valuations associated with impairment assessments, which use significant unobservable inputs and therefore fall under Level 3 of the fair value hierarchy, primarily include the valuation of reporting units for the purpose of testing for goodwill impairment. Unless a reporting unit has a readily determinable fair value, we estimate the fair value of the reporting unit using either a market-based approach or discounted cash flow analysis. With the exception of certain inputs for our weighted average cost of capital and discount rate calculations that are derived from pricing services, the inputs used in our discounted cash flow analyses, such as forecasts of future cash flows, are based on our assumptions.

As part of our annual goodwill impairment assessments in the fourth quarters of 2018 and 2017, we used a market-based valuation approach to determine the fair value of certain of our reporting units. The fair value of a reporting unit using a market-based approach is estimated based upon a market multiple typically applied to the reporting unit's OCF, as defined below. We determine the market multiple for each reporting unit taking the following into consideration: (i) public company trading multiples for entities with similar business characteristics as the respective reporting unit, adjusted to reflect an appropriate control premium or discount , a "trading multiple," and (ii) multiples derived from the value of recent transactions for businesses with similar operations and in geographically similar locations, a "transaction multiple." For additional information regarding impairment charges resulting from our impairment analyses, see note 9.

In September 2017, Hurricanes Irma and Maria impacted a number of our markets in the Caribbean, resulting in varying degrees of damage to homes, businesses and infrastructure in these markets, most notably in the British Virgin Islands and Dominica (collectively, the **Impacted Markets**). The effects of the hurricanes were deemed to constitute triggering events with respect to the need to assess certain assets for impairment. Nonrecurring valuations were performed in connection with these impairment assessments for certain of our reporting units for purposes of assessing goodwill impairments. We used a discount rate of 10% in

the valuation of the reporting units. These valuations used projected cash flows that reflected the significant risks and uncertainties associated with our recovery from Hurricanes Irma and Maria, including variables such as (i) the length of time estimated to restore the power and transmission systems, (ii) the number of people estimated to leave these islands for an extended period or permanently and the associated impact on customer churn, (iii) the amount of potential insurance recoveries and (iv) the estimated capital expenditures required to restore the damaged networks in the Impacted Markets. For additional information regarding the impairment charges related to the hurricanes, see note 9.

As we use the term, "**OCF**" is defined as operating income (loss) before depreciation and amortization, share-based compensation, provisions and provision releases related to significant litigation and impairment, restructuring and other operating items. Other operating items include (i) gains and losses on the disposition of long-lived assets, (ii) third-party costs directly associated with successful and unsuccessful acquisitions and dispositions, including legal, advisory and due diligence fees, as applicable, (iii) other acquisition-related items, such as gains and losses on the settlement of contingent consideration, and (iv) certain related-party insurance losses and recoveries.

(7) Investments

We hold a 49% interest in TSTT. Our investment in TSTT is included in other assets, net, in our consolidated balance sheets. Pursuant to certain conditions to the regulatory approval of the Columbus Acquisition, we are required to dispose of our investment in TSTT, subject to certain terms and conditions. During the third quarter of 2018, we recorded an impairment charge of $16 million due to a decline in the estimated fair value of this investment. As of December 31, 2018 and 2017, the carrying value of our investment in TSTT was $77 million and $93 million, respectively. We cannot predict when, or if, we will be able to dispose of this investment at an acceptable price. As such, no assurance can be given that we will be able to recover the carrying value of our investment in TSTT.

(8) Insurance Recoveries

In September 2017, Hurricanes Irma and Maria impacted a number of our markets in the Caribbean, resulting in varying degrees of damage to homes, businesses and infrastructure in these markets. In October 2016, our operations in the Bahamas were significantly impacted by Hurricane Matthew.

In December 2018, we settled our insurance claims for Hurricanes Irma, Maria and Matthew (collectively, the **Hurricanes**) as follows: (i) $35 million for Hurricanes Maria and Irma, after deducting $21 million of self-insurance, and (ii) $12 million for Hurricane Matthew, after deducting $15 million of self-insurance.

The following table summarizes the impact of the insurance settlements to our consolidated statements of operations:

	Year ended December 31,	
	2018	2017
	in millions	
Other operating (a)	$ 1.8	$ 2.5
Business interruption (b)	11.0	—
Impairment, restructuring and other operating items, net (c)	17.1	14.4
Total	$ 29.9	$ 16.9

(a) The 2017 amount represents recoveries related to Hurricane Matthew.

(b) The 2018 amount includes $3 million attributable to Hurricane Matthew.

(c) Amounts for each year include $3 million attributable to Hurricane Matthew.

During 2018 and 2017, we received payments related to the Hurricanes from our third-party insurance provider totaling $6 million and $3 million, respectively. In connection with final settlement in 2018, $7 million of the cumulative payments received is presented as a cash inflow from investing activities on our 2018 consolidated statement of cash flows. Subsequent to December 31, 2018, we received $34 million in insurance proceeds. We expect to receive the remaining balance due of $4 million during the

first quarter of 2019. For additional information regarding the impacts of the hurricanes, including self-insurance obligations we have retained, see note 14.

(9) Long-lived Assets

Impairment Charges

The following table sets forth the details of our impairment charges:

	Year ended December 31,	
	2018	2017
	in millions	
Goodwill (exclusive of hurricane-related impairment charges)	$ 610.0	$ 317.9
Hurricane-related:		
Goodwill	—	117.3
Property and equipment	—	22.8
Total hurricane-related	—	140.1
Other	5.0	—
Total impairment charges	$ 615.0	$ 458.0

Goodwill. We evaluate goodwill and other indefinite-lived intangible assets (primarily cable television franchise rights) for impairment at least annually on October 1 and whenever facts and circumstances indicate that their carrying amounts may not be recoverable. During our 2018 annual goodwill impairment test, we concluded a $608 million impairment was necessary at our Panama reporting unit. This impairment primarily resulted from the impacts of a significant increase in competition, particularly with respect to the prepaid mobile business. The accumulation of prepaid mobile subscriber losses, together with associated adverse impacts to average monthly subscription revenue per mobile subscriber, negatively impacted the actual results for the year and the expected future financial performance of our Panama reporting unit, resulting in the impairment during the fourth quarter of 2018.

During our 2017 annual goodwill impairment test, we concluded that impairments were necessary at certain of our reporting units primarily as a result of greater than expected impacts of competition and, in the case of one smaller reporting unit, a longer expected recovery period from Hurricane Irma.

Hurricane-related Impairments. In September 2017, certain of our operations in the Caribbean were severely impacted by Hurricanes Irma and Maria, with the most extensive damage occurring in the Impacted Markets. Based on our then estimates of the impacts on our operations from these hurricanes, we recorded impairment charges to reduce the carrying values of our goodwill and property and equipment as set forth in the table above. These impairment charges were based on our assessments of then currently available information.

For additional information regarding the impacts of the hurricanes and the fair value methods and related assumptions used in our impairment assessments, see note 6.

Goodwill

Changes in the carrying amount of our goodwill during 2018 and 2017 are set forth below:

	December 31, 2018	December 31, 2017
	in millions	
Balance at January 1	$ 4,962.5	$ 5,557.0
Acquisitions and related adjustments	23.6	(157.0)
Impairments (a)	(610.0)	(435.2)
Foreign currency translation adjustments	(50.5)	(2.3)
Balance at December 31	$ 4,325.6	$ 4,962.5

(a) Amount in 2018 primarily represents the impairment charge associated with our Panama reporting unit as further discussed above. Amount in 2017 represents (i) impairment charges that were recorded during the third quarter of 2017 based on our assessments of the impacts of Hurricanes Irma and Maria and (ii) impairment charges related to our annual October 1 goodwill impairment analysis. For additional information regarding the impacts of Hurricanes Irma and Maria and the fair value method and related assumptions used in our impairment assessments, see above and notes 6 and 8.

Based on the results of our October 1, 2018 goodwill impairment test, declines in the estimated fair value of certain of our reporting units could result in the need to record additional goodwill impairment charges. If, among other factors, (i) our enterprise value or Liberty Latin America's equity values were to decline significantly or (ii) the adverse impacts of competition, economic, regulatory or other factors, including macro-economic and demographic trends, were to cause our results of operations or cash flows to be worse than anticipated, we could conclude in future periods that impairment charges are required in order to reduce the carrying values of our goodwill and, to a lesser extent, other long-lived assets. Any such impairment charges could be significant.

At December 31, 2018 and 2017, our accumulated goodwill impairments were $1,045 million and $435 million, respectively.

Property and Equipment, Net

The details of our property and equipment and the related accumulated depreciation are set forth below:

	Estimated useful life at December 31, 2018	December 31, 2018	December 31, 2017
		in millions	
Distribution systems	3 to 25 years	$ 2,667.2	$ 2,580.9
Customer premises equipment	5 years	445.0	278.8
Support equipment, buildings and land	3 to 40 years	949.5	837.4
		4,061.7	3,697.1
Accumulated depreciation		(1,120.4)	(649.0)
Total		$ 2,941.3	$ 3,048.1

Depreciation expense related to our property and equipment was $452 million and $410 million during 2018 and 2017, respectively.

We recorded non-cash increases to our property and equipment related to vendor financing arrangements of $11 million and nil during 2018 and 2017, respectively.

Intangible Assets Subject to Amortization, Net

The details of our intangible assets subject to amortization, which had estimated useful lives ranging from 4 to 15 years at December 31, 2018, are set forth below:

	December 31, 2018	December 31, 2017
	in millions	
Gross carrying amount:		
Customer relationships	$ 1,304.5	$ 1,266.0
Licenses and other	183.3	199.7
Total gross carrying amount	1,487.8	1,465.7
Accumulated amortization:		
Customer relationships	(421.7)	(221.8)
Licenses and other	(25.9)	(14.4)
Total accumulated amortization	(447.6)	(236.2)
Net carrying amount	$ 1,040.2	$ 1,229.5

Amortization expense related to intangible assets with finite useful lives was $168 million and $182 million during 2018 and 2017, respectively.

Based on our amortizable intangible asset balance at December 31, 2018, we expect that amortization expense will be as follows for the next five years and thereafter (in millions):

2019	$ 155.0
2020	154.1
2021	145.9
2022	134.6
2023	129.0
Thereafter	321.6
Total	$ 1,040.2

(10) Debt and Capital Lease Obligations

The U.S. dollar equivalents of the components of our debt are as follows:

	December 31, 2018			Estimated fair value (c)		Principal amount	
	Weighted average interest rate (a)	Unused borrowing capacity (b)		December 31,		December 31,	
		Borrowing currency	US $ equivalent	2018	2017	2018	2017
			in millions				
C&W Credit Facilities	5.52 %	$ 760.0	$ 760.0	$ 2,135.6	$ 2,216.4	$ 2,193.6	$ 2,212.2
C&W Notes	7.16 %	—	—	1,724.7	1,749.7	1,781.6	1,648.4
Vendor financing (d)	5.17 %	—	—	56.9	40.0	56.9	40.0
Total debt before premiums, discounts and deferred financing costs	6.24 %		$ 760.0	$ 3,917.2	$ 4,006.1	$ 4,032.1	$ 3,900.6

The following table provides a reconciliation of total debt before premiums, discounts and deferred financing costs to total debt and capital lease obligations:

	December 31,	
	2018	2017
	in millions	
Total debt before premiums, discounts and deferred financing costs	$ 4,032.1	$ 3,900.6
Premiums, discounts and deferred financing costs, net	(5.4)	6.9
Total carrying amount of debt	4,026.7	3,907.5
Capital lease obligations	10.9	16.7
Total debt and capital lease obligations	4,037.6	3,924.2
Less: Current maturities of debt and capital lease obligations	(201.3)	(165.6)
Long-term debt and capital lease obligations	$ 3,836.3	$ 3,758.6

(a) Represents the weighted average interest rate in effect at December 31, 2018 for all borrowings outstanding pursuant to each debt instrument, including any applicable margin. The interest rates presented represent stated rates and do not include the impact of derivative instruments, deferred financing costs, original issue premiums or discounts and commitment fees, all of which affect our overall cost of borrowing. Including the effects of derivative instruments, original issue premiums or discounts and commitment fees, but excluding the impact of financing costs, the weighted average interest rate on our indebtedness was 6.3% at December 31, 2018. For information regarding our derivative instruments, see note 5.

(b) Unused borrowing capacity under the C&W Credit Facilities includes $625 million under the C&W Revolving Credit Facility, which represents the maximum availability without regard to covenant compliance calculations or other conditions precedent to borrowing. At December 31, 2018, the full amount of unused borrowing capacity under the C&W Credit Facilities was available to be borrowed, both before and after consideration of the completion of the December 31, 2018 compliance reporting requirements, which include leverage-based payment tests and leverage covenants.

(c) The estimated fair values of our debt instruments are determined using the average of applicable bid and ask prices (mostly Level 1 of the fair value hierarchy) or, when quoted market prices are unavailable or not considered indicative of fair value, discounted cash flow models (mostly Level 2 of the fair value hierarchy). The discount rates used in the cash flow models are based on the market interest rates and estimated credit spreads of the applicable entity, to the extent available, and other relevant factors. For additional information regarding fair value hierarchies, see note 6.

(d) Represents amounts owed pursuant to interest-bearing vendor financing arrangements that are used to finance certain of our operating expenses and property and equipment additions. These obligations are generally due within one year and include VAT that was paid on our behalf by the vendor. Our operating expenses for the years ended December 31, 2018 and 2017 include $77 million and $40 million, respectively, that were financed by an intermediary and are reflected on the borrowing date as a hypothetical cash outflow within net cash provided by operating activities and a hypothetical cash inflow within net cash provided by financing activities in our consolidated statements of cash flows. Repayments of vendor financing obligations are included in repayments of debt and capital lease obligations in our consolidated statements of cash flows.

General Information

Credit Facilities. We have entered into one or more credit facility agreements with certain financial institutions. Each of these credit facilities contain certain covenants, the more notable of which are as follows:

- Our credit facilities contain certain net leverage ratios, as specified in the relevant credit facility, which are required to be complied with on an incurrence and/or maintenance basis;
- Our credit facilities contain certain restrictions which, among other things, restrict the ability of the members of the borrowing group to (i) incur or guarantee certain financial indebtedness, (ii) make certain disposals and acquisitions, (iii) create certain security interests over their assets, in each case, subject to certain customary and agreed exceptions, and

(iv) make certain restricted payments to their direct and/or indirect parent companies (and indirectly to C&W or Liberty Latin America) through dividends, loans or other distributions, subject to compliance with applicable covenants;

- Our credit facilities require that certain members of the borrowing group guarantee the payment of all sums payable under the relevant credit facility and for first-ranking security to be granted over the shares in such guarantors and over certain intercompany loans or, in certain cases, over substantially all of their assets to secure the payment of all sums payable thereunder;
- In addition to certain mandatory prepayment events, the instructing group of lenders under the relevant credit facility may cancel the commitments thereunder and declare the loans thereunder due and payable after the applicable notice period following the occurrence of a change of control (as specified in the relevant credit facility);
- Our credit facilities contain certain customary events of default, the occurrence of which, subject to certain exceptions and materiality qualifications, would allow the instructing group of lenders to (i) cancel the total commitments, (ii) accelerate all outstanding loans and terminate their commitments thereunder and/or (iii) declare that all or part of the loans be payable on demand;
- Our credit facilities require members of the borrowing group to observe certain affirmative and negative undertakings and covenants, which are subject to certain materiality qualifications and other customary and agreed exceptions; and
- In addition to customary default provisions, our credit facilities generally include certain cross-default and cross-acceleration provisions with respect to other indebtedness of members of the borrowing group, subject to agreed minimum thresholds and other customary and agreed exceptions.

Senior Notes. In general, our senior notes (i) are senior obligations of each respective issuer within the borrowing group that rank equally with all of the existing and future senior debt of such issuer and are senior to all existing and future subordinated debt of each respective issuer within the borrowing group and (ii) contain, in most instances, guarantees from other members of the borrowing group (as specified in the applicable indenture). In addition, the indentures governing our senior notes contain certain covenants, the more notable of which are as follows:

- Our notes contain certain customary incurrence-based covenants. In addition, our notes provide that any failure to pay principal prior to expiration of any applicable grace period, or any acceleration with respect to other indebtedness of the issuer or certain of its subsidiaries, over agreed minimum thresholds (as specified under the applicable indenture), is an event of default under the respective notes;
- Our notes contain certain restrictions that, among other things, restrict the ability of the members of the borrowing group to (i) incur or guarantee certain financial indebtedness, (ii) make certain disposals and acquisitions, (iii) create certain security interests over their assets, in each case, subject to certain customary and agreed exceptions and (iv) make certain restricted payments to its direct and/or indirect parent companies (and indirectly to C&W or Liberty Latin America) through dividends, loans or other distributions, subject to compliance with applicable covenants; and
- If the relevant issuer or certain of its subsidiaries (as specified in the applicable indenture) sell certain assets, such issuer must offer to repurchase the applicable notes at par, or if a change of control (as specified in the applicable indenture) occurs, such issuer must offer to repurchase all of the relevant notes at a redemption price of 101%.

C&W Notes

The details of our outstanding notes as of December 31, 2018 are summarized in the following table:

C&W Notes	Maturity	Interest rate	Outstanding principal amount: Borrowing currency	Outstanding principal amount: U.S. $ equivalent	Estimated fair value	Carrying value (a)
				in millions		
2019 C&W Senior Notes (b) (c)	March 25, 2019	8.625 %	£ 83.6	$ 106.6	$ 107.4	$ 107.7
2022 C&W Senior Notes (b) (d)	August 1, 2022	6.875 %	$ 475.0	475.0	488.5	486.4
2026 C&W Senior Notes	October 15, 2026	7.500 %	$ 500.0	500.0	482.9	493.1
2027 C&W Senior Notes	September 15, 2027	6.875 %	$ 700.0	700.0	645.9	694.8
Total				$ 1,781.6	$ 1,724.7	$ 1,782.0

(a) Amounts are net of original issue premiums and deferred financing costs, as applicable.

(b) Carrying values of the 2019 C&W Senior Notes and the 2022 C&W Senior Notes (previously known as the Sable Senior Notes) include the impact of premiums recorded in connection with the acquisition accounting for the C&W Acquisition.

(c) Interest on the 2019 C&W Senior Notes is payable annually on March 25. In October 2018, 43.0% of the outstanding 2019 C&W Senior Notes were repurchased and cancelled in connection with a tender offer, as further described below.

(d) Interest on the 2022 C&W Senior Notes is payable semi-annually on February 1 and August 1. In November 2018, we redeemed certain of the 2022 C&W Senior Notes, as further described below.

Financing Transactions

C&W Senior Financing Designated Activity Company (**C&W Senior Financing**) is a special purpose financing entity that is 100% owned by a third-party, created for the primary purpose of facilitating certain debt offerings. We are required to consolidate C&W Senior Financing as a result of the variable interests created by debt issued by C&W Senior Financing to us, for which we are considered the primary beneficiary. C&W Senior Financing is dependent upon payments from us in order to service its payment obligations under the 2026 C&W Senior Notes and 2027 C&W Senior Notes.

2027 C&W Senior Notes. In August 2017, C&W Senior Financing issued the 2027 C&W Senior Notes. Interest on the 2027 C&W Senior Notes is payable semi-annually on January 15 and July 15.

C&W Senior Financing used the proceeds from the 2027 C&W Senior Notes issuance to fund a new term loan (the **2027 C&W Financing Loan**) with Sable as the borrower and certain other of our subsidiaries as guarantors. The call provisions, maturity and applicable interest rate for the 2027 C&W Financing Loan are the same as those for the 2027 C&W Senior Notes. C&W Senior Financing's obligations under the 2027 C&W Senior Notes are secured by interests over (i) certain of C&W Senior Financing's bank accounts and (ii) C&W Senior Financing's rights under the 2027 C&W Financing Loan.

The net proceeds from the C&W Term Loan B-3 Facility Add-on (as defined and described below) and the 2027 C&W Financing Loan were used (i) to redeem in full $1,250 million outstanding principal amount of senior notes, issued by Columbus prior to the Columbus Acquisition, and (ii) for general corporate purposes. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of $24 million. This loss includes (i) the payment of $85 million of redemption premiums and (ii) the write-off of $61 million of unamortized premiums.

2026 C&W Senior Notes. In October 2018, C&W Senior Financing issued the 2026 C&W Senior Notes. Interest on the 2026 C&W Senior Notes is payable semi-annually on April 15 and October 15.

C&W Senior Financing used the proceeds from the 2026 C&W Senior Notes issuance to fund a new term loan (the **2026 C&W Financing Loan**) with Sable as borrower and together with certain other our subsidiaries as guarantors. The call provisions, maturity and applicable interest rate for the 2026 C&W Financing Loan are the same as those for the 2026 C&W Senior Notes.

C&W Senior Financing's obligations under the 2026 C&W Senior Notes are secured by interests over (i) certain of C&W Senior Financing's bank accounts and (ii) C&W Senior Financing's rights under the 2026 C&W Financing Loan.

The net proceeds from the 2026 C&W Financing Loan were partially used to (i) repurchase £63 million ($80 million, at the applicable rate) of outstanding principal under the 2019 C&W Senior Notes, as further described below, and (ii) redeem $275 million of outstanding principal under the 2022 C&W Senior Notes. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of $13 million. This loss primarily includes (i) the payment of $17 million of redemption premiums, (ii) the write-off of $5 million of unamortized premiums, discounts and deferred financing costs and (iii) the payment of third-party costs.

Redemption Rights. Subject to the circumstances described below, the 2026 C&W Senior Notes and 2027 C&W Senior Notes are non-callable until October 15, 2021 and September 15, 2022, respectively. At any time prior to (i) October 15, 2021 in the case of the 2026 C&W Senior Notes and (ii) September 15, 2022 in the case of the 2027 C&W Senior Notes, Sable and C&W Senior Financing may redeem some or all of the applicable notes by paying a price equal to 100% of the principal amount of the applicable notes redeemed plus accrued and unpaid interest and a "make-whole" premium, which is generally the present value of all remaining scheduled interest payments to October 15, 2021 or September 15, 2022 (as applicable) using the discount rate (as specified in the indenture) as of the redemption date plus 50 basis points. In addition, at any time prior to (i) October 15, 2021 in the case of the 2026 C&W Senior Notes and (ii) September 15, 2022 in the case of the 2027 C&W Senior Notes, subject to certain restrictions (as specified in the applicable indenture), up to 40% of each of the 2026 C&W Senior Notes and the 2027 C&W Senior Notes may be redeemed with the net proceeds of one or more specified equity offerings at a redemption price equal to 107.500% and 106.875%, respectively, of the principal amount redeemed, plus accrued and unpaid interest and additional amounts (as specified in the applicable indenture), if any, to the applicable redemption date.

Sable and C&W Senior Financing (as applicable) may redeem some or all of the 2022 C&W Senior Notes, 2026 C&W Senior Notes and 2027 C&W Senior Notes, respectively, at the following redemption prices (expressed as a percentage of the principal amount) plus accrued and unpaid interest and additional amounts (as specified in the indenture), if any, to the applicable redemption date, as set forth below:

	Redemption price		
	2022 C&W Senior Notes	**2026 C&W Senior Notes**	**2027 C&W Senior Notes**
12-month period commencing:	August 1	October 15	September 15
2018	105.156%	N.A.	N.A.
2019	103.438%	N.A.	N.A.
2020	101.719%	N.A.	N.A.
2021	100.000%	103.750%	N.A.
2022	100.000%	101.875%	103.438%
2023	N.A.	100.000%	101.719%
2024	N.A.	100.000%	100.859%
2025 and thereafter	N.A.	100.000%	100.000%

Tender Offer – 2019 C&W Senior Notes. On October 15, 2018, we launched a tender offer to repurchase, for cash, any and all of our outstanding 2019 C&W Senior Notes (the **Tender Offer**). The price of the Tender Offer was 103% of the principal amount of the bonds tendered, plus accrued and unpaid interest up to, but not including, the payment date. Pursuant to the Tender Offer, which was completed on October 31, 2018, we paid total consideration of £68 million ($87 million at the transaction date), including accrued interest of £3 million ($4 million at the transaction date), for 43.0% of the outstanding 2019 C&W Senior Notes and cancelled the 2019 C&W Senior Notes that were tendered.

2022 C&W Senior Notes. In November 2018, we completed the redemption of $275 million of aggregate principal amount of the 2022 C&W Senior Notes for total consideration of $294 million, including (i) the 105.156% redemption price and (ii) accrued and unpaid interest on the redeemed notes.

C&W Credit Facilities

The C&W Credit Facilities are the senior secured credit facilities of certain of our subsidiaries. The details of our borrowings under the C&W Credit Facilities as of December 31, 2018 are summarized in the following table:

C&W Credit Facilities	Maturity	Interest rate	Facility amount (in borrowing currency)	Unused borrowing capacity (a)	Outstanding principal amount	Carrying value (b)
				in millions		
C&W Revolving Credit Facility (c)...	June 30, 2023	LIBOR (d) + 3.25%	$ 625.0	$ 625.0	$ —	$ —
C&W Term Loan B-4 Facility (c).......	January 31, 2026	LIBOR + 3.25%	$ 1,875.0	—	1,875.0	1,870.5
C&W Regional Facilities (e)	various dates ranging from 2019 to 2038	4.01% (f)	$ 453.6	135.0	318.6	317.3
Total				$ 760.0	$ 2,193.6	$ 2,187.8

(a) The amount related to the C&W Revolving Credit Facility represents the maximum availability without regard to covenant compliance calculations or other conditions precedent to borrowing. At December 31, 2018, based on the applicable leverage-based restricted payment tests and leverage covenants, the full amount of unused borrowing capacity under the C&W Credit Facilities was available to be borrowed.

(b) Amounts are net of discounts and deferred financing costs, as applicable.

(c) In March 2018, we amended and restated the credit agreement originally dated May 16, 2016, as amended and restated as of May 26, 2017, providing for the additional C&W Term Loan B-4 Facility, as further described below, and a $625 million revolving credit facility. The C&W Revolving Credit Facility has a fee on unused commitments of 0.5% per year.

(d) London Interbank Offered Rate.

(e) Represents certain amounts borrowed by C&W Panama, C&W Jamaica, Marpin 2K4 Ltd., Cable & Wireless Dominica Limited, BTC and, for periods prior to June 30, 2018, Cable & Wireless (Barbados) Limited (**C&W Barbados**) (collectively, the **C&W Regional Facilities**).

(f) Represents a weighted average rate for all C&W Regional Facilities.

Financing Transactions

In January 2018, C&W Panama entered into a $100 million principal amount term loan facility that bears interest at 4.35%, payable on a quarterly basis, and matures in January 2023. The proceeds from the term loan were primarily used to repay existing C&W Panama debt.

In February 2018, we entered into a $1,875 million principal amount term loan facility (the **C&W Term Loan B-4 Facility**). The net proceeds of the C&W Term Loan B-4 Facility were used to repay in full the $1,825 million outstanding principal amount of the C&W Term Loan B-3 Facility and repay $40 million drawn under the C&W Revolving Credit Facility. The exchange in principal amounts of $1,825 million was treated as a non-cash transaction in our consolidated statement of cash flows. In connection with this transaction, we recognized a loss on debt modification and extinguishment of $13 million, which represents the write-off of unamortized discounts and deferred financing costs.

In March 2017, C&W Panama entered into a $100.0 million principal amount term loan facility that bears interest at 4.50%, payable on a quarterly basis, and matures in March 2021. The proceeds from the term loan were primarily used for general corporate purposes.

In May 2017, we entered into the C&W Term Loan B-3 Facility, a $1,125 million term loan facility. The net proceeds from the C&W Term Loan B-3 Facility were used to prepay in full $1,100 million outstanding principal amount under term loans issued in May 2016 (the **C&W Term Loans**). Certain lenders of the C&W Term Loans novated $929 million principal amount under the C&W Term Loans into the C&W Term Loan B-3 Facility, which was treated as a non-cash financing transaction in our consolidated statement of cash flows. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of $25 million. This loss includes (i) the write-off of $23 million of unamortized discounts and deferred financing costs and (ii) the payment of $2 million of third-party costs.

In July 2017, the commitments under the C&W Term Loan B-3 Facility were increased by $700 million (the **C&W Term Loan B-3 Facility Add-on**). The C&W Term Loan B-3 Facility Add-on was issued at 99.5% of par with the same maturity and interest rate as the C&W Term Loan B-3 Facility. In addition, we drew down $50 million under the C&W Revolving Credit Facility to fund a portion of a required contribution to the CWSF (as defined and discussed in note 16). We repaid the outstanding balance of the C&W Revolving Credit Facility in 2018, $40 million of which was paid with the net proceeds of the C&W Term Loan B-4 Facility.

Maturities of Debt

Maturities of our debt as of December 31, 2018 are presented below. Amounts presented below represent U.S. dollar equivalents based on December 31, 2018 exchange rates (in millions):

Years ending December 31:	
2019	$ 191.5
2020	24.1
2021	124.2
2022	489.3
2023	120.5
Thereafter	3,082.5
Total debt maturities	4,032.1
Premiums, discounts and deferred financing costs, net	(5.4)
Total	$ 4,026.7
Current portion	$ 192.7
Noncurrent portion	$ 3,834.0

(11) Income Taxes

The components of our loss before income taxes are as follows:

	Year ended December 31, 2018	Year ended December 31, 2017
	in millions	
Domestic (a)	$ (171.0)	$ (109.4)
Foreign (b) (c)	(520.7)	(374.9)
Total	$ (691.7)	$ (484.3)

(a) C&W is incorporated in the U.K.

(b) The amounts include impairment charges, as further described in note 9.

(c) Significant jurisdictions include (i) Panama, the U.K. and Barbados in 2018 and (ii) Barbados, Trinidad, British Virgin Islands and the Bahamas in 2017.

Income tax benefit (expense) consists of:

	Current	Deferred	Total
		in millions	
Year ended December 31, 2018:			
Domestic	$ 1.8	$ (4.8)	$ (3.0)
Foreign	(56.6)	56.1	(0.5)
Total	$ (54.8)	$ 51.3	$ (3.5)
Year ended December 31, 2017:			
Domestic	$ (6.1)	$ (15.2)	$ (21.3)
Foreign	(86.3)	39.0	(47.3)
Total	$ (92.4)	$ 23.8	$ (68.6)

Income tax expense attributable to our loss before income taxes differs from the amounts computed by using the applicable tax rate as a result of the following:

	Year ended December 31,	
	2018	2017
	in millions	
Computed expected tax benefit (a)	$ 131.4	$ 92.0
Effect of non-deductible goodwill impairments	(157.0)	(59.5)
International rate differences (a) (b)	53.2	(45.0)
Enacted tax law and rate changes (c) (d) (e)	1.8	3.7
Permanent differences (f)	(23.6)	(15.1)
Increases in valuation allowances	(21.2)	(23.3)
Other, net	11.9	(21.4)
Total income tax expense	$ (3.5)	$ (68.6)

(a) The applicable statutory tax rate in the U.K. is 19% for the years ended December 31, 2018 and 2017.

(b) The 2018 corporate tax rates applicable to our primary tax jurisdictions are as follows: U.K. 19%, Barbados, 0.25%, 2.5% or 30% and Panama, 25%. The corporate tax rates applicable to our Barbados operations vary, as we have operations that represent different types of business entities and, accordingly, calculate tax at different rates.

(c) During 2018, legislation was enacted that changed the income tax rate in Barbados from 25.0% to 30.0% on Regular Barbados Companies. Substantially all of the impact of this rate change on our deferred tax balances was recorded during the fourth quarter of 2018 when the change in law was enacted.

(d) On January 1, 2017, legislation was enacted that changed the income tax rate in Trinidad and Tobago from 25% to 30%. Substantially all of the impact of this rate change on our deferred tax balances was recorded during the first quarter of 2017 when the change in tax law was enacted.

(e) On December 22, 2017, the Tax Cuts and Jobs Act legislation was enacted in the U.S., which permanently reduced the corporate income tax rate to 21.0% (effective January 1, 2018), among other corporate income tax changes. Substantially all of the impact of this rate change on our U.S. deferred tax balances was recorded during the fourth quarter of 2017 when the change in tax law was enacted.

(f) Permanent differences primarily relate to various non-taxable income or non-deductible expenses, such as Caricom treaty income, limitations on deductible management fees, or transfer pricing, among others.

Deferred income taxes reflect the impact of temporary differences between the amount of assets and liabilities recognized for financial reporting purposes and such amounts recognized for tax purposes. The components of our deferred tax assets (liabilities) are as follows:

	December 31, 2018	December 31, 2017
	in millions	
Deferred tax assets	$ 98.0	$ 62.1
Deferred tax liabilities	(338.4)	(345.9)
Net deferred tax liability	$ (240.4)	$ (283.8)

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are presented below:

	December 31, 2018	December 31, 2017
	in millions	
Deferred tax assets:		
Net operating losses, credits and other carryforwards	$ 1,282.1	$ 1,263.5
Deferred revenue	0.6	8.2
Unrealized gains and losses	26.2	22.5
Accrued expenses	46.1	38.4
Other future deductible amounts	1.5	1.9
Deferred tax assets	1,356.5	1,334.5
Valuation allowance	(1,205.0)	(1,185.6)
Deferred tax assets, net of valuation allowance	151.5	148.9
Deferred tax liabilities:		
Un-remitted foreign earnings	(18.0)	(16.1)
Property and equipment	(202.9)	(216.2)
Intangible assets	(171.0)	(200.4)
Deferred tax liabilities	(391.9)	(432.7)
Net deferred tax liability	$ (240.4)	$ (283.8)

The changes in our valuation allowances are summarized below:

	Year ended December 31, 2018	Year ended December 31, 2017
	in millions	
Balance at beginning of year	$ 1,185.6	$ 1,259.4
Net tax expense related to operations	21.2	23.3
Translation adjustments	(1.8)	—
Business acquisitions and other	—	(97.1)
Balance at end of year	$ 1,205.0	$ 1,185.6

Deferred tax assets related to net operating losses may be used to offset future taxable income. The significant components of our tax loss carryforwards and related tax assets at December 31, 2018 are as follows:

Country	Tax loss carryforward	Related tax asset	Expiration date
	in millions		
U.K.:			
Amount attributable to capital losses	$ 4,732.9	$ 804.6	Indefinite
Amount attributable to net operating losses	1,384.1	235.3	Indefinite
Barbados	1,075.9	51.3	2019-2025
Jamaica	447.5	148.0	Indefinite
Other	164.2	40.4	Various
Total	$ 7,804.6	$ 1,279.6	

A valuation allowance of $1,243 million on the net operating loss carryforwards as of December 31, 2018 has been recorded where we do not expect to generate future taxable income or where certain losses may be limited in use due to change in control or same-business tests.

Our tax loss carryforwards within each jurisdiction combine all companies' tax losses (both capital and ordinary losses) in that jurisdiction, however, certain tax jurisdictions limit the ability to offset taxable income of a separate company or different tax group with the tax losses associated with another separate company or group. Further, tax jurisdictions restrict the type of taxable income that the above losses are able to offset.

In both 2018 and 2017, we have foreign tax credit carryforwards of $1 million, which are primarily available in the U.S. Substantially all credits not utilized will expire at the end of 2027. Other credit carry forwards at the end of 2018 and 2017, in the amounts of $2 million at each period end, predominantly represent alternative minimum tax credits attributable to our operations in Puerto Rico and Colombia for which the current tax law provides no period of expiration.

Through our consolidated subsidiaries, we maintain a presence in many countries. Many of these countries maintain highly complex tax regimes. We have accounted for the effect of these taxes based on what we believe is reasonably expected to apply to us and our consolidated subsidiaries based on tax laws currently in effect and reasonable interpretations of these laws. Because some jurisdictions do not have systems of taxation that are as well established as the system of income taxation used in other major industrialized countries, it may be difficult to anticipate how other jurisdictions will tax our and our consolidated subsidiaries' current and future operations.

Although we intend to take reasonable tax planning measures to limit our tax exposures, no assurance can be given that we will be able to do so.

We file income tax returns in various jurisdictions. In the normal course of business, our income tax filings are subject to review by various taxing authorities. In connection with such reviews, disputes could arise with the taxing authorities over the interpretation or application of certain income tax rules related to our business in that tax jurisdiction. Such disputes may result in future tax and interest and penalty assessments by these taxing authorities. The ultimate resolution of tax contingencies will take place upon the earlier of (i) the settlement date with the applicable taxing authorities in either cash or agreement of income tax positions or (ii) the date when the tax authorities are statutorily prohibited from adjusting the company's tax computations.

In general, tax returns filed by, or that include, entities comprising C&W for years prior to 2009 are no longer subject to examination by tax authorities. We are currently undergoing income tax audits in Panama, Trinidad and Tobago and certain other jurisdictions within the Caribbean and Latin America. Except as noted below, any adjustments that might arise from the foregoing examinations are not expected to have a material impact on our consolidated financial position or results of operations.

The changes in our unrecognized tax benefits are summarized below:

	Year ended December 31,	
	2018	2017
	in millions	
Balance at January 1	$ 11.6	$ 32.7
Lapse of statute of limitations	(10.7)	(5.9)
Additions for tax positions of prior years	5.7	5.8
Reductions for tax positions of prior years	—	(20.1)
Other	0.9	(0.9)
Balance at December 31	$ 7.5	$ 11.6

No assurance can be given that any of these unrecognized tax benefits will be recognized or realized.

As of December 31, 2018, all of our unrecognized tax benefits would have a favorable impact on our effective income tax rate if ultimately recognized.

During 2019, it is reasonably possible that the resolution of ongoing examinations by tax authorities as well as expiration of statutes of limitation could result in reductions to our unrecognized tax benefits related to tax positions taken as of December 31, 2018. Other than the potential impacts of ongoing examinations and the expected expiration of certain statutes of limitation, we do not expect any material changes to our unrecognized tax benefits during 2019. No assurance can be given as to the nature or impact of any changes in our unrecognized tax positions during 2019.

During 2018 and 2017, our income tax benefit (expense) includes net interest expense of $2 million and $8 million, respectively, representing the net accrual of interest and penalties during the period. Our other long-term liabilities include accrued interest and penalties of $15 million and $13 million at December 31, 2018 and 2017, respectively.

(12) Equity

C&W Jamaica NCI Acquisition

During 2018, we increased our ownership in C&W Jamaica from 82.0% to 92.3% by acquiring 1,727,047,174 of the issued and outstanding ordinary stock units of C&W Jamaica that we did not already own (the **C&W Jamaica NCI Acquisition**) for JMD $1.45 per share or JMD $2,504 million ($20 million at the transaction dates) of paid consideration. In connection with the C&W Jamaica NCI Acquisition, we incurred approximately $1 million in transaction fees.

C&W Barbados NCI Acquisition

Effective September 1, 2017, we increased our ownership in C&W Barbados from 81.1% to 100% by acquiring all of the issued and outstanding common shares of C&W Barbados that we did not already own for Barbadian dollars (**Bds**) of Bds $2.86 per share (the **C&W Barbados NCI Acquisition**). As of December 31, 2018, Bds $67 million ($34 million) of the consideration was paid, including Bds $2 million ($1 million) in transaction fees, and the remaining Bds $12 million ($6 million) was recorded as a liability in our consolidated balance sheet.

Distributions to Liberty Global

Distributions to Liberty Global of $73 million in 2017 represent the utilization of certain of our deferred tax net operating losses by Liberty Global under a U.K. group relief mechanism.

(13) Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss included in our consolidated balance sheets and statements of equity reflect the aggregate impact of foreign currency translation adjustments, pension-related adjustments and unrealized gains (losses) on available-for-sale investments. The changes in the components of accumulated other comprehensive earnings (loss), net of taxes, are summarized as follows:

	Parent					
	Foreign currency translation adjustments	Pension-related adjustments	Unrealized gains (losses) on available-for-sale investments	Accumulated other comprehensive loss	Non-controlling interests	Total accumulated other comprehensive loss
	in millions					
Balance at January 1, 2017	$ (50.3)	$ (8.0)	$ (2.5)	$ (60.8)	$ (1.0)	$ (61.8)
Other comprehensive loss	(4.5)	(18.1)	3.5	(19.1)	1.0	(18.1)
Balance at December 31, 2017	(54.8)	(26.1)	1.0	(79.9)	—	(79.9)
Other comprehensive loss	(67.4)	30.3	(2.1)	(39.2)	(1.3)	(40.5)
Impact of the C&W Jamaica NCI Acquisition	7.0	0.2	—	7.2	(7.2)	—
Balance at December 31, 2018	$ (115.2)	$ 4.4	$ (1.1)	$ (111.9)	$ (8.5)	$ (120.4)

The tax effects associated with pension-related adjustments were $2 million and nil for 2018 and 2017, respectively.

(14) Related-party Transactions

Our related-party transactions are as follows:

	Year ended December 31,	
	2018	2017
	in millions	
Revenue	$ 4.9	$ 4.5
Operating costs	(2.2)	(2.3)
Fees and allocations	(27.5)	(4.1)
Impairment, restructuring and other operating items, net	5.6	(11.1)
Included in operating loss	(19.2)	(13.0)
Interest income	4.2	3.8
Included in net loss	$ (15.0)	$ (9.2)

General. We consider other subsidiaries of Liberty Latin America, Liberty Global, and subsidiaries of Liberty Global to each be a related party (collectively, the **Related Parties**).

Revenue. These amounts represent certain transactions with another subsidiary of Liberty Latin America that arise in the normal course of business, which include fees for the use of our products and services and network and access charges.

Operating costs. These amounts represent (i) fees associated with our use of products and services, network and access charges from another subsidiary of Liberty Latin America and, to a lesser extent, (ii) certain technical and information technology services (including software development services associated with customer-facing platforms, management information systems, computer, data storage, and network and telecommunications services) provided by Liberty Global.

Fees and allocations. These amounts represent fees charged to our company by the Related Parties and are expected to be cash settled. These amounts include charges for management, finance, legal, technology and other corporate and administrative services provided to our company. The 2017 amount represents $4 million of fees charged to our company prior to the Split-Off

that originated with Liberty Global and certain other Liberty Global subsidiaries. Beginning in the second quarter of 2017 and continuing until the Split-Off, Liberty Global charged fees to our company based on our estimated share of the actual costs incurred by Liberty Global's operations, without a mark-up. Subsequent to the Split-Off, these items are now charged or allocated to our company from subsidiaries of Liberty Latin America. Although we believe the related-party fees and allocations described below are reasonable, no assurance can be given that the related-party costs and expenses reflected in our consolidated statements of operations are reflective of the costs that we would incur on a standalone basis. Effective with the Split-Off, the categories of our fees and allocations are as follows:

- *Other operating expenses (exclusive of share-based compensation).* During 2018, we incurred $20 million in fees and allocations associated with other operating expenses from Liberty Latin America. These amounts represent our estimated share of certain centralized technology, management, marketing, finance and other operating expenses of the Related Parties' operations, whose activities benefit multiple operations, including operations within and outside of our company. The amounts allocated represent our estimated share of the actual costs incurred by the operations of the Related Parties, without a mark-up. Amounts in this category generally may be deducted to arrive at our "EBITDA" metric specified by our debt agreements (**Covenant EBITDA**).

- *Other operating income.* During 2018, we earned $4 million in fees and allocations associated with our estimate of costs for services performed by certain of our employees on behalf of other subsidiaries of Liberty Latin America. Amounts in this category generally may be deducted to arrive at our Covenant EBITDA.

- *Share-based compensation.* During 2018, we incurred $10 million in fees and allocations associated with share-based compensation. This amount represents our estimated share of the actual costs incurred by the operations of the Related Parties, without a mark-up, associated with employees of the Related Parties who are not employees of our company.

- *Management fee.* During 2018, we incurred $2 million in fees and allocations associated with management fees. This amount represents our estimated allocable share of the mark-up, if any, applicable to each category of the related-party fees and allocations charged to our company.

Impairment, restructuring and other operating items, net. The 2018 amount represents the net effect of (i) the reversal of estimated self-insurance losses accrued in 2017 by the Captive (as defined and further discussed below) and (ii) actual self-insurance losses recorded by the Captive in connection with payments made during 2018 related to hurricane losses sustained by Liberty Cablevision of Puerto Rico LLC (**Liberty Puerto Rico**), a subsidiary of Liberty Latin America. The 2017 amount represents an estimate of losses accrued by the Captive in connection with its then expected share of self-insurance obligations for hurricane losses sustained by Liberty Puerto Rico.

Interest income. These amounts represent interest income on the LGE Coral Holdco Note B, as further described below.

The following table provides details of our significant related-party balances:

	December 31, 2018	December 31, 2017
	in millions	
Assets:		
Trade and other receivables (a)	$ 1.0	$ 3.0
Note receivable (b)	40.1	—
Other current assets (c)	4.5	—
Total current assets	45.6	3.0
Noncurrent assets – note receivable (d)	64.6	60.5
Total assets	$ 110.2	$ 63.5
Liabilities:		
Trade and other payables (e)	$ 13.6	$ 7.1
Other accrued and current liabilities (f)	17.1	12.1
Total current liabilities	30.7	19.2
Noncurrent liabilities – deferred revenue (g)	0.4	0.4
Total liabilities	$ 31.1	$ 19.6

(a) Represents non-interest bearing receivables due from (i) another subsidiary of Liberty Latin America and (ii) Liberty Global at December 31, 2017. These amounts are included in trade and other receivables in our consolidated balance sheets.

(b) Represents principal of $40 million and accrued interest related to a note receivable due from LGE Coral Holdco (the **LGE Coral Holdco Note A**). The LGE Coral Holdco Note A bears interest at 5.51% per annum and matures in December 2019.

(c) Represents non-interest bearing receivables due from Liberty Latin America related to the other operating income included in fees and allocations as noted above. These amounts are included in other current assets in our consolidated balance sheets.

(d) As of December 31, 2018, represents principal of $61 million and accrued interest related to a note receivable due from LGE Coral Holdco (the **LGE Coral Holdco Note B**), primarily related to certain fees and taxes we paid on our parent company's behalf in 2016. The LGE Coral Holdco Note B bears interest at 6.41% per annum, matures in May 2025 and is denominated in British pounds sterling. Accrued interest for each note is generally transferred to the respective principal balance on January 1.

(e) Primarily represents non-interest bearing payables due to (i) Liberty Latin America related to the charges included in fees and allocations as noted above and (ii) certain Liberty Global subsidiaries.

(f) Primarily represents (i) amounts due to Liberty Latin America related to share-based compensation expense incurred in 2018 and (ii) at December 31, 2017, amounts accrued by the Captive in connection with its expected share of self-insurance obligations for hurricane losses sustained by Liberty Puerto Rico in 2017.

(g) Represents deferred revenue associated with certain indefeasible rights of use arrangements with another subsidiary of Liberty Latin America.

At the time of Hurricanes Irma and Maria, Liberty Latin America maintained an integrated group property and business interruption insurance program covering all of our markets with a limit of up to $75 million per occurrence, which was generally subject to $15 million per occurrence of self-insurance, of which up to $3 million was generally the responsibility of the impacted markets and $12 million was provided through one of our wholly-owned subsidiaries, Coral Re SPC, Ltd. (formerly Cable & Wireless Communications Insurance, Ltd.), which is a captive insurance entity (the **Captive**). The business interruption insurance program covers all markets of Liberty Latin America, including operations in Puerto Rico (Liberty Puerto Rico) and Chile (VTR.com SpA (**VTR**)), neither of which are consolidated by C&W. Under this program, the markets of Liberty Latin America, including Liberty Puerto Rico and VTR, pay insurance premiums to the third-party insurance carriers, while the Captive receives premiums from the third-party insurance carriers related to the Captive's retained risk.

Liberty Puerto Rico sustained significant losses from Hurricane Maria, and to a lesser extent Hurricane Irma, primarily as a result of service outages and costs required to restore its network. Hurricanes Maria and Irma resulted in two occurrences for the markets impacted, most significantly in Puerto Rico. During 2018, under the self-insurance obligations we retained, the Captive made a payment of $6 million associated with damages sustained by Liberty Puerto Rico from Hurricane Maria. Further, the Captive made payments of $18 million associated with damages sustained by the Impacted Markets, representing the balance of risk it retained, which were eliminated upon consolidation.

(15) Restructuring Liabilities

A summary of changes in our restructuring liabilities during 2018 and 2017 is set forth in the table below:

	Employee severance and termination	Contract termination and other	Total
		in millions	
Restructuring liability as of January 1, 2018	$ 3.1	$ 0.6	$ 3.7
Restructuring charges (recovery)	23.9	(0.5)	23.4
Cash paid	(21.3)	(0.1)	(21.4)
Foreign currency translation adjustments and other	0.3	—	0.3
Restructuring liability as of December 31, 2018	$ 6.0	$ —	$ 6.0
Restructuring liability as of January 1, 2017	$ 3.2	$ 0.6	$ 3.8
Restructuring charges	23.3	0.6	23.9
Cash paid	(23.9)	(0.6)	(24.5)
Foreign currency translation adjustments and other	0.5	—	0.5
Restructuring liability as of December 31, 2017	$ 3.1	$ 0.6	$ 3.7

Our restructuring liabilities as of December 31, 2018 and 2017 are included in other accrued and current liabilities in our consolidated balance sheets. The restructuring charges during 2018 primarily include employee severance and termination costs related to reorganization activities, primarily in the Bahamas, Panama and Jamaica. The restructuring charges during 2017 include employee severance and termination costs related to reorganization and integration activities, primarily associated with the integration of our company with Liberty Latin America.

In addition to the restructuring charges set forth in the table above, we also incurred $9 million in restructuring charges related to employee severance and termination costs, which impacted our net pension liability. For additional information, see note 16.

(16) Defined Benefit Plans

We maintain various funded defined benefit plans for our employees, including (i) the Cable & Wireless Superannuation Fund (**CWSF**), which is our largest defined benefit plan, and (ii) plans in Jamaica, Barbados and the Bahamas. A significant portion of these defined benefit plans are closed to new entrants, and existing participants do not accrue any additional benefits.

We also operate unfunded defined benefit arrangements in the U.K., which are governed by individual trust deeds. One arrangement incorporates a covenant requiring that we hold security against the value of the liabilities. The security is in the form of U.K. Government Gilts, which are included in other assets, net, in our consolidated balance sheets. At December 31, 2018 and 2017, the carrying value of our investment in the U.K. Government Gilts was $35 million and $37 million, respectively.

Annual service costs for these employee benefit plans is determined using the projected unit credit actuarial method. Our subsidiaries that maintain funded plans have established investment policies for plan assets. The investment strategies are long-term in nature and generally designed to meet the following objectives:

- ensure that funds are available to pay benefits as they become due;
- maximize the total returns on plan assets subject to prudent risk taking; and
- preserve or improve the funded status of the trusts over time.

The weighted average assumptions used in determining our benefit obligations and net periodic pension cost are as follows:

	December 31,	
	2018	2017
Expected rate of salary increase	0.7%	0.6%
Discount rate	3.6%	3.0%
Discount rate – CWSF uninsured liability	2.8%	2.4%
Return on plan assets	3.6%	3.2%
Retail price index inflation rate	3.5%	3.7%
Consumer price index inflation rate	2.2%	2.2%

The present value of the CWSF vested benefit obligations has been calculated as of December 31, 2018. Assumptions used are best estimates from a range of possible actuarial assumptions, which may not necessarily be borne out in practice. The assumptions related to mortality rates for the CWSF and U.K. unfunded plans are based upon the second series of Self-Administered Pension Scheme and the actual experience of the plan participants and dependents. In addition, allowance was made for future mortality improvements in line with the 2017 Continuous Mortality Investigation core projections with a long-term rate of improvement of 1.25% per annum. Based on these assumptions, the life expectancies of participants aged 60 are as follows:

	December 31,		
	2018	2028	2038
		years	
Male participants and dependents	28	29	29
Female participants and dependents	28	29	30

Risk

Through our defined benefit pension plans, we are exposed to a number of risks, the most significant of which are detailed below. The net pension liability can be significantly influenced by short-term market factors.

The calculation of the net surplus or deficit of the respective plans depends on factors that are beyond our control, principally (i) the value at the balance sheet date of equity securities in which the respective plan has invested and (ii) long-term interest rates, which are used to discount future liabilities. The funding of the respective plans is based on long-term trends and assumptions relating to market growth, as advised by qualified actuaries and investment advisors, including:

- Investment returns: Our net pension assets (liabilities) and contribution requirements are heavily dependent upon the return on the invested assets;
- Longevity: The cost to the company of the pensions promised to members is dependent upon the expected term of these payments. To the extent that members live longer than expected this will increase the cost of these arrangements; and
- Inflation rate risk: In the U.K., pension obligations are impacted by inflation and, as such, higher inflation will lead to higher pension liabilities.

At December 31, 2018, the above risks have been mitigated for approximately 66% of the CWSF's liabilities and 64% of the Jamaican plan's liabilities through the purchase of insurance policies, the payments from which exactly match the corresponding obligations to employees. The remaining investment risks in the plans have also been mitigated to a reasonable extent by a combination of matching assets and diversification of the return-seeking assets.

Sensitivity analysis

The following table summarizes (i) the impact a 1.0% increase or decrease in the applicable actuarial assumed rate would have on the valuation of our pension plans and (ii) the impact of plan participants living, on average, one year longer or one year less than assumed would have on the valuation of the CWSF:

	Increase	Decrease
	in millions	
CWSF and U.K. unfunded arrangements		
Discount rate:		
Effect on defined benefit obligation	$ (191)	$ 238
Effect on defined benefit obligation, net of annuity insurance policies	$ (89)	$ 116
Inflation (and related increases):		
Effect on defined benefit obligation	$ 134	$ (128)
Effect on defined benefit obligation, net of annuity insurance policies	$ 70	$ (65)
Life expectancy:		
Effect on defined benefit obligation	$ 76	$ (75)
Effect on defined benefit obligation, net of annuity insurance policies	$ 20	$ (19)
Other plans		
Effect on defined benefit obligation:		
Discount rate	$ (47)	$ 57
Life expectancy	$ 7	$ (7)

The sensitivity analysis is based on a standalone change in each assumption while holding all other assumptions constant. As reflected above, the impact on the net pension liability is significantly reduced for the CWSF as a result of the annuity insurance policies we hold.

Using the projected unit credit method for the valuation of liabilities, the current service cost is expected to increase when expressed as a percentage of pensionable payroll as the members of the plans approach retirement.

The following is a summary of the funded status of our defined benefit plans:

	December 31,	
	2018	2017
	in millions	
Projected benefit obligation at beginning of period	$ 2,020.0	$ 1,944.0
Bahamas plan adjustment (a)	328.4	—
Service cost	6.3	1.2
Prior service cost (b)	16.4	—
Contributions by plan participants	1.3	1.2
Interest cost	69.1	58.8
Actuarial gain	(123.6)	(47.2)
Benefits paid	(124.3)	(103.1)
Other	6.4	0.3
Effect of changes in foreign currency exchange rates	(103.3)	164.8
Projected benefit obligation at end of period	$ 2,096.7	$ 2,020.0
Accumulated benefit obligation at end of period	$ 2,084.1	$ 2,016.3
Fair value of plan assets at beginning of period	$ 2,118.7	$ 1,909.1
Bahamas plan adjustment (a)	152.3	—
Actual return on plan assets	24.2	13.8
Contributions by employer	7.0	130.0
Contributions by plan participants	1.3	1.2
Benefits paid	(124.3)	(103.1)
Other	0.2	0.3
Effect of changes in foreign currency exchange rates	(111.3)	167.4
Fair value of plan assets at end of period	$ 2,068.1	$ 2,118.7
Net pension asset (liability)	$ (28.6)	$ 98.7

(a) During 2018, we recognized a net pension liability that is largely indemnified by a government entity. At December 31, 2018, the indemnification asset balance was $132 million, which is included in other assets, net, in our consolidated balance sheet.

(b) Amount relates to an allowance recorded during 2018 in connection with expected costs associated with guaranteed minimum pension inequalities in the CWSF.

Defined benefit plan amounts included in our consolidated balance sheets are as follows:

	December 31,	
	2018	2017
	in millions	
Noncurrent assets	$ 177.3	$ 143.9
Noncurrent liabilities	(205.9)	(45.2)
	$ (28.6)	$ 98.7

The asset allocation by asset category, asset mix and fair value hierarchy level (as further described in note 6) of our defined benefit plan assets are as follows:

	Asset mix (a)	December 31, 2018			
		Total	Level 1	Level 2	Level 3
	%	in millions			
Equity securities	17.9	$ 369.7	$ 207.8	$ 161.9	$ —
Bonds (b)	25.1	518.9	504.6	14.3	—
Insurance annuity contracts (c)	54.1	1,119.3	—	91.0	1,028.3
Real estate	1.3	26.0	9.9	1.2	14.9
Private equity	0.4	9.7	—	—	9.7
Cash	1.2	24.5	24.5	—	—
Total	100.0	$ 2,068.1	$ 746.8	$ 268.4	$ 1,052.9

	Asset mix (a)	December 31, 2017			
		Total	Level 1	Level 2	Level 3
	%	in millions			
Equity securities	27.0	$ 572.8	$ 347.5	$ 225.3	$ —
Bonds (b)	8.4	177.2	175.1	2.1	—
Insurance annuity contracts (c)	59.2	1,255.3	—	107.5	1,147.8
Real estate	1.3	26.5	13.9	0.9	11.7
Private equity	0.6	11.9	—	—	11.9
Other	0.7	15.2	10.8	4.4	—
Cash	2.8	59.8	59.8	—	—
Total	100.0	$ 2,118.7	$ 607.1	$ 340.2	$ 1,171.4

(a) We review the asset allocations within the respective portfolios on a regular basis. Generally, the plans do not have explicit asset mix targets other than for the equity securities and bond portfolios within the CWSF on a consolidated basis. The asset mix is primarily subject to, among other considerations, a de-risking plan related to the CWSF.

(b) Amounts primarily include (i) fixed-interest and index-linked U.K. Government Gilts held by the CWSF and (ii) bonds held by the Bahamas and Jamaica plans.

(c) The trustees of the CWSF and Jamaica plan have each purchased annuity policies pursuant to which the insurer assumed responsibility for the benefits payable to certain participants of the CWSF and Jamaica plan. At December 31, 2018 and 2017, approximately 66% of the liabilities in the CWSF and 64% and 69%, respectively, of the liabilities in the Jamaica plan are matched by related annuity policy assets, which reduces our funding risk for these plans.

A reconciliation of the beginning and ending balances of our plan assets measured at fair value using Level 3 inputs is as follows:

	December 31, 2018	December 31, 2017
	in millions	
Balance at beginning of year	$ 1,171.4	$ 1,042.6
Gains (losses) relating to assets still held at year-end	10.4	(9.0)
Purchases, sales and settlements of investments, net	(64.4)	38.0
Foreign currency translation adjustments	(64.5)	99.8
Balance at end of year	$ 1,052.9	$ 1,171.4

The components of net periodic pension benefit recorded in our consolidated statements of operations are as follows:

	Year ended December 31, 2018	Year ended December 31, 2017
	in millions	
Included in operating income – service costs	$ 3.7	$ 1.2
Other income (expense), net:		
Interest costs	64.5	58.8
Expected return on plan assets	(74.8)	(73.0)
Other	(1.9)	(0.3)
	(12.2)	(14.5)
Total net periodic pension benefit	$ (8.5)	$ (13.3)

The net actuarial loss recognized in accumulated other comprehensive loss during each period and not yet recognized as a component of net period benefit cost at each period end is as follows:

	Year ended December 31, 2018	Year ended December 31, 2017
	in millions	
Balance at beginning of year	$ (19.8)	$ (9.7)
Actuarial gain on projected benefit obligation	81.9	47.2
Actuarial loss on plan assets (a)	(51.1)	(59.2)
Foreign currency translation adjustments and other	(0.3)	1.9
Balance at end of year	$ 10.7	$ (19.8)

(a) Represents the actual less expected return on plan assets.

Based on December 31, 2018 exchange rates, the benefits that we currently expect to pay during the next five years and in the aggregate for the five years thereafter with respect to our defined benefit plans are as follows (in millions):

Year ending December 31:	
2019	$ 102.9
2020	103.8
2021	105.9
2022	107.7
2023	111.4
2024 – 2028	564.7

Other

The C&W Acquisition constituted a "change of control" under a contingent funding agreement between us and the trustee of the CWSF (the **Contingent Funding Agreement**). Under the terms of the Contingent Funding Agreement, the change in control provided the trustee of the CWSF with the right to satisfy certain funding requirements of the CWSF through the utilization of letters of credit aggregating £100 million that were put in place in connection with the Columbus Acquisition. On June 26, 2017, the trustee of the CWSF elected to utilize the funding right under these letters of credit and, accordingly, we contributed £100 million ($130 million at the applicable rate) to the CWSF on July 3, 2017, comprising $80 million (equivalent) of existing cash and $50 million of borrowings under the C&W Revolving Credit Facility, which was repaid during 2018.

Taking into account the aforementioned £100 million contribution and based on the triennial valuation that was completed in July 2017, no funding deficit exists with respect to the CWSF. As a result, we do not expect to make material contributions to the CWSF through April 2019.

Based on December 31, 2018 foreign exchange rates and information available as of that date, we expect contributions of $9 million in aggregate to our defined benefit plans in 2019.

(17) Commitments and Contingencies

Commitments

In the normal course of business, we have entered into agreements that commit our company to make cash payments in future periods with respect to network and connectivity commitments, purchases of customer premises equipment, non-cancellable operating leases, programming contracts and other items. The following table sets forth the U.S. dollar equivalents of such commitments as of December 31, 2018:

	Payments due during:						
	2019	2020	2021	2022	2023	Thereafter	Total
	in millions						
Network and connectivity commitments	$ 45.6	$ 26.3	$ 17.0	$ 13.6	$ 13.3	$ 21.7	$ 137.5
Purchase commitments	96.0	27.9	0.3	—	—	—	124.2
Operating leases	28.1	24.1	19.4	15.6	11.6	24.7	123.5
Programming commitments	25.7	9.6	4.7	—	—	—	40.0
Other commitments	4.6	0.3	0.2	—	—	—	5.1
Total (a)	$ 200.0	$ 88.2	$ 41.6	$ 29.2	$ 24.9	$ 46.4	$ 430.3

(a) The commitments included in this table do not reflect any liabilities that are included in our December 31, 2018 consolidated balance sheet.

Network and connectivity commitments include our domestic network service agreements with certain other telecommunications companies. The amounts reflected in the above table with respect to these commitments represent fixed

minimum amounts payable under these agreements and, therefore, may be significantly less than the actual amounts we ultimately pay in these periods.

Purchase commitments include unconditional and legally-binding obligations related to (i) the purchase of customer premises and other equipment and (ii) certain service-related commitments, including call center, information technology and maintenance services.

Operating leases consist of property leases for mobile tower locations that generally have initial non-cancellable terms of five or ten years with one or more renewal options and also include non-cancellable lease commitments for (i) retail stores, offices and facilities, (ii) other network assets and (iii) other equipment. Rental expense under operating lease arrangements amounted to $34 million during each of 2018 and 2017. It is expected that in the normal course of business, operating leases that expire generally will be renewed or replaced by similar leases.

Programming commitments consist of obligations associated with certain programming and sports rights contracts that are enforceable and legally binding on us as we have agreed to pay minimum fees without regard to (i) the actual number of subscribers to the programming services, (ii) whether we terminate service to a portion of our subscribers or dispose of a portion of our distribution systems or (iii) whether we discontinue our premium sports services. In addition, programming commitments do not include increases in future periods associated with contractual inflation or other price adjustments that are not fixed. Accordingly, the amounts reflected in the above table with respect to these contracts are significantly less than the amounts we expect to pay in these periods under these contracts. Historically, payments to programming vendors have represented a significant portion of our operating costs, and we expect that this will continue to be the case in future periods. In this regard, our total programming and copyright costs aggregated $140 million and $152 million during 2018 and 2017, respectively, and include the amortization of certain live-programming rights in certain of our markets.

In addition to the commitments set forth in the table above, we have significant commitments under (i) derivative instruments and (ii) defined benefit plans and similar agreements, pursuant to which we expect to make payments in future periods. For information regarding our derivative instruments, including the net cash paid or received in connection with these instruments during 2018 and 2017, see note 5. For information concerning our defined benefit plans, see note 16.

We have established various defined contribution benefit plans for our employees. Our aggregate expense for matching contributions under the various defined contribution employee benefit plans was $7 million and $10 million during 2018 and 2017, respectively.

Guarantees and Other Credit Enhancements

In the ordinary course of business, we may provide (i) indemnifications to our lenders, our vendors and certain other parties and (ii) performance and/or financial guarantees to local municipalities, our customers and vendors. Historically, these arrangements have not resulted in our company making any material payments and we do not believe that they will result in material payments in the future. In addition, we have provided indemnifications of (i) up to $300 million with respect to any potential tax-related claims related to the disposal in April 2013 of our interests in certain businesses and (ii) an unlimited amount of qualifying claims associated with the disposal of another business in May 2014. The first indemnification expires in April 2020 and the second expires in May 2020. We do not expect that either of these arrangements will require us to make material payments to the indemnified parties.

Legal and Regulatory Proceedings and Other Contingencies

COTT Claim. In 2015, a claim was filed against a subsidiary of Columbus by the Copyright Music Organization of Trinidad and Tobago (**COTT**) for damages of copyright infringement related to musical works transmitted by the subsidiary. We have recorded a provision based on our best estimate of the potential liability associated with this claim. While we generally expect that the amounts required to satisfy this contingency will not materially differ from the estimated amount we have accrued, no assurance can be given that the resolution of the COTT claim will not result in a material impact on our results of operations, cash flows or financial position.

Regulatory. The Liberty Global Transaction triggered regulatory approval requirements in certain jurisdictions in which we operate. The regulatory authorities in certain of these jurisdictions, including Trinidad and Tobago and the Seychelles, have not completed their review of the acquisition or granted their approval. While we expect to receive all outstanding approvals, such approvals may include binding conditions or requirements that could have an adverse impact on our operations and financial condition.

Other Regulatory Issues. Video distribution, broadband internet, fixed-line telephony and mobile businesses are regulated in each of the countries in which we operate. The scope of regulation varies from country to country. Adverse regulatory developments could subject our businesses to a number of risks. Regulation, including conditions imposed on us by competition or other authorities as a requirement to close acquisitions or dispositions, could limit growth, revenue and the number and types of services offered and could lead to increased operating costs and property and equipment additions. In addition, regulation may restrict our operations and subject them to further competitive pressure, including pricing restrictions, interconnect and other access obligations, and restrictions or controls on content, including content provided by third parties. Failure to comply with current or future regulation could expose our businesses to various penalties.

In addition to the foregoing items, we have contingent liabilities related to matters arising in the ordinary course of business, including (i) legal proceedings, (ii) issues involving wage, property, withholding and other tax issues and (iii) disputes over interconnection, programming and copyright fees. While we generally expect that the amounts required to satisfy these contingencies will not materially differ from any estimated amounts we have accrued, no assurance can be given that the resolution of one or more of these contingencies will not result in a material impact on our results of operations, cash flows or financial position in any given period. Due, in general, to the complexity of the issues involved and, in certain cases, the lack of a clear basis for predicting outcomes, we cannot provide a meaningful range of potential losses or cash outflows that might result from any unfavorable outcomes.

(18) Revenue by Product

Our revenue by major category is set forth in the table below. As further described in note 2, we adopted ASU 2014-09 effective January 1, 2018 using the cumulative effect transition method. The 2017 comparative information has not been restated and continues to be reported under the accounting standards in effect for that period. The most significant impact on revenue from adopting ASU 2014-09 was an increase for certain long-term prepaid subsea capacity arrangements, as described in notes 2 and 3.

	Year ended December 31,	
	2018	2017
	in millions	
Residential revenue:		
Residential fixed revenue:		
Subscription revenue (a):		
Video	$ 172.0	$ 164.8
Broadband internet	225.3	207.8
Fixed-line telephony	101.0	115.3
Total subscription revenue	498.3	487.9
Non-subscription revenue (b)	68.3	68.4
Total residential fixed revenue	566.6	556.3
Residential mobile revenue:		
Subscription revenue (a)	594.2	643.0
Non-subscription revenue (c)	89.6	88.5
Total residential mobile revenue	683.8	731.5
Total residential revenue	1,250.4	1,287.8
B2B revenue:		
Service revenue (d)	842.5	823.1
Subsea network revenue (e)	240.2	211.2
Total B2B revenue	1,082.7	1,034.3
Total	$ 2,333.1	$ 2,322.1

(a) Residential fixed and mobile subscription revenue includes amounts received from subscribers for ongoing fixed and airtime services.

(b) Residential fixed non-subscription revenue primarily includes interconnect revenue.

(c) Residential mobile non-subscription revenue primarily includes (i) interconnect revenue and (ii) $40 million and $38 million of revenue from sales of mobile handsets and other devices for 2018 and 2017, respectively.

(d) B2B service revenue primarily includes broadband internet, video, fixed-line telephony, mobile and managed services (including equipment installation contracts) offered to small (including small or home office), medium and large enterprises and, on a wholesale basis, other telecommunication operators.

(e) B2B subsea network revenue includes long-term capacity contracts with customers where the customer either pays a fixed fee over time or prepays for the capacity upfront and pays a portion related to operating and maintenance of the network over time.