The UPC Holding Group

Combined Financial Statements
December 31, 2017

The UPC Holding Group
(See note 1)

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Independent Auditors' Report

The Board of Directors
UPC Holding Group:

Report on the Financial Statements

We have audited the accompanying combined financial statements of UPC Holding Group as defined in note 1 of the combined financial statements, which comprise the combined balance sheets as of December 31, 2017 and 2016, and the related combined statements of operations, comprehensive loss, deficit and cash flows for the years ended December 31, 2017, 2016 and 2015, and the related notes to the combined financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these combined 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 combined 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 combined 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 combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the combined 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 combined 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 combined 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 combined financial statements referred to above present fairly, in all material respects, the financial position of UPC Holding Group as defined in note 1 of the combined financial statements, which as of December 31, 2017 and 2016, and the results of their operations and their cash flows for the years ended December 31, 2017, 2016 and 2015, in accordance with U.S. generally accepted accounting principles.

Amstelveen, The Netherlands
March 23, 2018

KPMG Accountants N.V.

The UPC Holding Group
(See note 1)

COMBINED BALANCE SHEETS

	December 31,	
	2017	2016
	in millions	
ASSETS		
Current assets:		
Cash and cash equivalents	€ 27.5	€ 26.8
Trade receivables, net	271.8	326.7
Related-party receivables (note 12)	133.7	114.3
Derivative instruments (note 6)	114.5	159.1
Current assets held for sale (note 5)	33.6	—
Other current assets	67.3	58.4
Total current assets	648.4	685.3
Related-party receivables (note 12)	5.7	421.2
Property and equipment, net (note 8)	2,198.8	2,509.3
Goodwill (note 8)	3,564.3	4,349.8
Derivative instruments (note 6)	348.4	463.1
Long-term assets held for sale (note 5)	983.2	—
Intangible assets subject to amortization, net (note 8)	71.5	99.0
Other assets, net (notes 7 and 10)	75.7	82.7
Total assets	€ 7,896.0	€ 8,610.4

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

The UPC Holding Group
(See note 1)

COMBINED BALANCE SHEETS — (Continued)

	December 31, 2017	December 31, 2016
	in millions	
LIABILITIES AND COMBINED DEFICIT		
Current liabilities:		
Accounts payable (note 12)	€ 362.6	€ 324.7
Deferred revenue and advance payments from subscribers and others	266.1	344.5
Derivative instruments (note 6)	95.5	162.9
Current portion of debt and capital lease obligations (note 9)	664.2	740.8
Current liabilities held for sale (note 5)	83.2	—
Other accrued and current liabilities (note 12)	635.5	1,002.6
Total current liabilities	2,107.1	2,575.5
Long-term debt and capital lease obligations (note 9):		
Third-party	5,447.9	5,679.2
Related-party (note 12)	6,700.5	6,161.4
Derivative instruments (note 6)	538.2	625.9
Long-term liabilities held for sale (note 5)	64.7	—
Other long-term liabilities (notes 10 and 13)	75.4	196.0
Total liabilities	14,933.8	15,238.0
Commitments and contingencies (notes 4, 6, 9, 10, 13 and 15)		
Combined deficit (notes 11 and 14):		
Parent entities:		
Distributions and accumulated losses in excess of contributions	(7,772.9)	(7,472.6)
Accumulated other comprehensive earnings, net of taxes	715.0	763.5
Total combined deficit attributable to parent entities	(7,057.9)	(6,709.1)
Noncontrolling interests	20.1	81.5
Total combined deficit	(7,037.8)	(6,627.6)
Total liabilities and combined deficit	€ 7,896.0	€ 8,610.4

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF OPERATIONS

	Year ended December 31,		
	2017	2016	2015
		in millions	
Revenue (notes 12 and 16)	€ 2,611.7	€ 2,569.8	€ 2,544.8
Operating costs and expenses (exclusive of depreciation and amortization, shown separately below):			
Programming and other direct costs of services (note 12)	506.6	451.7	424.5
Other operating (note 12)	367.1	379.5	403.4
Selling, general and administrative (**SG&A**) (note 12)	359.2	364.1	366.2
Related-party fees and allocations, net (note 12)	379.8	341.0	293.1
Depreciation and amortization	571.4	548.4	572.1
Impairment, restructuring and other operating items, net	5.2	5.3	5.0
	2,189.3	2,090.0	2,064.3
Operating income	422.4	479.8	480.5
Non-operating income (expense):			
Interest expense:			
Third-party	(302.4)	(336.3)	(367.6)
Related-party (note 12)	(629.2)	(564.7)	(600.1)
Interest income (note 12)	—	2.7	10.6
Realized and unrealized losses on derivative instruments, net (note 6)	(165.2)	(28.9)	(42.3)
Foreign currency transaction gains (losses), net	289.3	(117.8)	(216.0)
Losses on debt modification and extinguishment, net (note 9)	(97.0)	(70.3)	(183.9)
Other income, net	3.7	13.5	3.5
	(900.8)	(1,101.8)	(1,395.8)
Loss before income taxes	(478.4)	(622.0)	(915.3)
Income tax expense (note 10)	(14.9)	(57.3)	(85.5)
Net loss	(493.3)	(679.3)	(1,000.8)
Net earnings attributable to noncontrolling interests	(10.7)	(13.0)	(12.0)
Net loss attributable to parent entities	€ (504.0)	€ (692.3)	€ (1,012.8)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF COMPREHENSIVE LOSS

	Year ended December 31,		
	2017	2016	2015
		in millions	
Net loss	€ (493.3)	€ (679.3)	€ (1,000.8)
Other comprehensive earnings (loss), net of taxes (note 14):			
Foreign currency translation adjustments	(55.1)	19.6	222.6
Other	6.6	8.9	(31.4)
Other comprehensive earnings (loss)	(48.5)	28.5	191.2
Comprehensive loss	(541.8)	(650.8)	(809.6)
Comprehensive earnings attributable to noncontrolling interests	(10.7)	(13.0)	(12.0)
Comprehensive loss attributable to parent entities	€ (552.5)	€ (663.8)	€ (821.6)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF DEFICIT

	Parent entities				
	Distributions and accumulated losses in excess of contributions	Accumulated other comprehensive earnings, net of taxes	Total combined deficit attributable to parent entities	Non-controlling interests	Total combined deficit
			in millions		
Balance at January 1, 2015	€ (13,744.3)	€ 543.8	€ (13,200.5)	€ 21.8	€ (13,178.7)
Net loss	(1,012.8)	—	(1,012.8)	12.0	(1,000.8)
Other comprehensive earnings, net of taxes (note 14)	—	191.2	191.2	—	191.2
Consideration received in connection with the Ziggo Services Transfer (note 1)	5,371.8	—	5,371.8	—	5,371.8
Consideration received in connection with the UPC Ireland Transfer (note 1)	1,087.7	—	1,087.7	—	1,087.7
Contributions from other subsidiaries of Liberty Global (note 12)	953.4	—	953.4	—	953.4
Contribution in connection with novation of third-party debt to another Liberty Global subsidiary (note 12)	689.2	—	689.2	—	689.2
Distributions to other subsidiaries of Liberty Global (note 12)	(230.9)	—	(230.9)	—	(230.9)
Impact of consolidation of UMI (note 12)	—	—	—	62.8	62.8
Deemed contribution of technology-related services (note 12)	33.3	—	33.3	—	33.3
Property and equipment contributed by parent entities (notes 8 and 12)	16.0	—	16.0	—	16.0
Share-based compensation (note 12)	12.1	—	12.1	—	12.1
Distributions to noncontrolling interest owners	—	—	—	(10.3)	(10.3)
Capital charge in connection with exercise or vesting of share-based incentive awards (note 12)	(10.1)	—	(10.1)	—	(10.1)
Other, net	1.3	—	1.3	(4.6)	(3.3)
Balance at December 31, 2015	€ (6,833.3)	€ 735.0	€ (6,098.3)	€ 81.7	€ (6,016.6)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF DEFICIT — (Continued)

	Parent entities				
	Distributions and accumulated losses in excess of contributions	Accumulated other comprehensive earnings, net of taxes	Total combined deficit attributable to parent entities	Non-controlling interests	Total combined deficit
			in millions		
Balance at January 1, 2016	€ (6,833.3)	€ 735.0	€ (6,098.3)	€ 81.7	€ (6,016.6)
Net loss	(692.3)	—	(692.3)	13.0	(679.3)
Other comprehensive earnings, net of taxes (note 14)	—	28.5	28.5	—	28.5
Deemed contribution of technology-related services (note 12)	27.3	—	27.3	—	27.3
Share-based compensation (note 12)	17.0	—	17.0	—	17.0
Capital charge in connection with exercise or vesting of share-based incentive awards (note 12)	(8.1)	—	(8.1)	—	(8.1)
Property and equipment contributed by parent entities (notes 8 and 12)	17.3	—	17.3	—	17.3
Distributions to noncontrolling interest owners	—	—	—	(13.0)	(13.0)
Other, net	(0.5)	—	(0.5)	(0.2)	(0.7)
Balance at December 31, 2016	€ (7,472.6)	€ 763.5	€ (6,709.1)	€ 81.5	€ (6,627.6)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF DEFICIT — (Continued)

	Parent entities				
	Distributions and accumulated losses in excess of contributions	Accumulated other comprehensive earnings, net of taxes	Total combined deficit attributable to parent entities	Non-controlling interests	Total combined deficit
			in millions		
Balance at January 1, 2017	€ (7,472.6)	€ 763.5	€ (6,709.1)	€ 81.5	€ (6,627.6)
Net loss	(504.0)	—	(504.0)	10.7	(493.3)
Impact of deconsolidation UMI (note 12)	—	—	—	(60.9)	(60.9)
Other comprehensive loss, net of taxes	—	(48.5)	(48.5)	—	(48.5)
Deemed contribution of technology-related services (note 12)	5.7	—	5.7	—	5.7
Share-based compensation (note 12)	10.2	—	10.2	—	10.2
Capital charge in connection with the exercise or vesting of share-based incentive awards (note 12)	(7.2)	—	(7.2)	—	(7.2)
Property and equipment contributed by parent entities (notes 8 and 12)	14.6	—	14.6	—	14.6
Cash consideration received for the Slovakia Transaction (notes 1 and 11)	44.5	—	44.5	—	44.5
Conversion of related-party loans payable and related accrued interest to equity in connection with the Slovakia Transaction (note 12)	135.5	—	135.5	—	135.5
Distribution to noncontrolling interest owners	—	—	—	(11.2)	(11.2)
Other, net	0.4	—	0.4	—	0.4
Balance at December 31, 2017	€ (7,772.9)	€ 715.0	€ (7,057.9)	€ 20.1	€ (7,037.8)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF CASH FLOWS

	Year ended December 31,		
	2017	2016	2015
		in millions	
Cash flows from operating activities:			
Net loss	€ (493.3)	€ (679.3)	€ (1,000.8)
Adjustments to reconcile net loss to net cash provided (used) by operating activities:			
Share-based compensation expense	10.2	17.0	12.1
Related-party fees and allocations, net	379.8	341.0	293.1
Depreciation and amortization	571.4	548.4	572.1
Impairment, restructuring and other operating items, net	5.2	5.3	5.0
Non-cash interest on related-party loans	629.2	564.7	600.1
Amortization of deferred financing costs and non-cash interest	6.9	7.6	6.7
Realized and unrealized losses on derivative instruments, net	165.2	28.9	42.3
Foreign currency transaction gains (losses), net	(289.3)	117.8	216.0
Losses on debt modification and extinguishment, net	97.0	70.3	183.9
Deferred income tax expense (benefit)	(6.3)	(3.5)	10.4
Changes in operating assets and liabilities, net of the effects of acquisitions and dispositions:			
Receivables and other operating assets	246.5	164.1	295.1
Payables and accruals	(626.5)	(423.2)	(2,044.7)
Net cash provided (used) by operating activities	696.0	759.1	(808.7)
Cash flows from investing activities:			
Capital expenditures	(244.2)	(175.0)	(139.7)
Repayments from (advances to) related parties and affiliates, net	1.6	8.6	(55.9)
Cash paid in connection with acquisitions, net of cash acquired	(11.2)	(19.6)	(24.8)
Other investing activities, net	6.3	2.6	2.9
Net cash used by investing activities	€ (247.5)	€ (183.4)	€ (217.5)

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

The UPC Holding Group
(See note 1)

COMBINED STATEMENTS OF CASH FLOWS — (Continued)

	Year ended December 31,		
	2017	2016	2015
		in millions	
Cash flows from financing activities:			
Borrowings of third-party debt	€ 1,762.6	€ 854.8	€ 3,429.1
Repayments and repurchases of third-party debt and capital lease obligations	(1,748.1)	(1,288.7)	(5,940.2)
Borrowings of related-party debt, net	500.5	71.2	3,964.5
Change in cash collateral	(600.0)	—	51.5
Value-added taxes (**VAT**) paid on behalf of a related party	(152.0)	—	—
Net cash paid related to derivative instruments	(137.7)	(255.1)	(229.7)
Payment of financing costs and debt premiums	(105.6)	(61.4)	(177.8)
Contributions from (distributions to) other Liberty Global subsidiaries, net	44.4	(0.4)	1.1
Distributions to noncontrolling interest owners	(11.2)	(11.9)	(10.3)
Other financing activities, net	(0.9)	(2.2)	(2.8)
Net cash provided (used) by financing activities	(448.0)	(693.7)	1,085.4
Effect of exchange rate changes on cash	0.2	5.8	28.5
Net increase (decrease) in cash and cash equivalents	0.7	(112.2)	87.7
Cash and cash equivalents:			
Beginning of year	26.8	139.0	51.3
End of year	€ 27.5	€ 26.8	€ 139.0
Cash paid for interest – third-party	€ 317.6	€ 361.6	€ 397.4
Cash paid for interest – related-party	€ —	€ —	€ 1,363.2
Net cash paid for taxes	€ 123.1	€ 114.7	€ 92.7

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

(1) Basis of Presentation

UPC Holding B.V. (**UPC Holding**) and UPC Broadband Slovakia s.r.o. (**UPC Slovakia**) are wholly-owned subsidiaries of Liberty Global plc (**Liberty Global**). The accompanying combined financial statements include the historical financial information of UPC Holding and its subsidiaries and UPC Slovakia and its subsidiaries (**Slovakia**) (collectively, the **UPC Holding Group**). Prior to the fourth quarter of 2017, Slovakia was a wholly-owned subsidiary of UPC Holding. In connection with certain internal reorganization transactions completed by Liberty Global during the fourth quarter of 2017, Slovakia was acquired by another subsidiary of Liberty Global outside of the UPC Holding Group (the **Slovakia Transaction**). We accounted for the Slovakia Transaction as a common control transfer at historical cost, as further described in note 11. Following the Slovakia Transaction, Slovakia remains a restricted subsidiary for the purpose of the facilities agreement and bond indentures governing the debt of the UPC Holding Group. Accordingly, the accompanying financial statements are prepared on a combined basis as a result of this change in reporting entity. In these notes, the terms, "we," "our," "our company" and "us" may refer, as the context requires, to the UPC Holding Group.

As of December 31, 2017, we provided (i) video, broadband internet and fixed-line telephony services in seven European countries and (ii) mobile services in four European countries. We also provide direct-to-home satellite (**DTH**) services to customers in the Czech Republic, Hungary, Romania and Slovakia through a Luxembourg-based organization that we refer to as "**UPC DTH**." In addition, each of our reportable segments also provides business-to-business (**B2B**) services.

During the first quarter of 2015, we completed (i) the transfer of Ziggo Services B.V. (**Ziggo Services**) and its subsidiaries from our company to another subsidiary of Liberty Global outside of the UPC Holding Group (the **Ziggo Services Transfer**), (ii) the transfer of UPC Broadband Ireland Ltd. (**UPC Ireland**) and its subsidiaries from our company to certain subsidiaries of Liberty Global outside of the UPC Holding Group (the **UPC Ireland Transfer**) and (iii) the transfer of Liberty Global Services II B.V. (**Liberty Global Services II**) and Liberty Global Operations B.V. (**Liberty Global Operations**) from our company to certain other subsidiaries of Liberty Global outside of the UPC Holding Group (the **Corporate Entities Transfer**). The Ziggo Services Transfer, the UPC Ireland Transfer and the Corporate Entities Transfer are collectively referred to as the "**UPC Transfers**". As the UPC Transfers constitute transactions between entities under common control, we have reflected these transfers at carryover basis.

Unless otherwise indicated, ownership percentages and convenience translations into euros are calculated as of December 31, 2017.

These combined financial statements reflect our consideration of the accounting and disclosure implications of subsequent events through March 23, 2018, the date of issuance.

UPC Holding guarantees the commitments entered into by UPC DTH Sarl and UPC DTH Leasing Sarl, each of which is a subsidiary of UPC Holding, in order to make use of the exemptions pursuant to Article 70 of the Luxembourg Law of December 19, 2002.

(2) Accounting Changes and Recent Accounting Pronouncements

Accounting Changes

In January 2017, the Financial Accounting Standards Board (**FASB**) issued Accounting Standards Update (**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 evaluation of our goodwill for impairment.

Recent Accounting Pronouncements

ASU 2014-09

In May 2014, the FASB issued 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. ASU 2014-09, as amended by ASU No. 2015-14, will replace existing revenue recognition guidance when it becomes effective for annual periods beginning after December 15, 2018, with early adoption permitted. This new standard permits the use of either the retrospective or cumulative effect transition method. We will adopt ASU 2014-09 effective January 1, 2018 using the cumulative effect transition method. The most significant impacts of ASU 2014-09 on our revenue recognition policies relate to our accounting for (i) time-limited discounts and free service periods provided to our customers and (ii) certain upfront fees charged to our customers, as follows:

- When we enter into contracts to provide services to our customers, we often provide time-limited discounts or free service periods. Under current accounting standards, we recognize revenue net of discounts during the promotional periods and do not recognize any revenue during free service periods. Under ASU 2014-09, revenue recognition for those contracts that contain substantive termination penalties will be accelerated, as the impact of the discounts or free service periods will be recognized uniformly over the contractual period. For contracts that do not have substantive termination penalties, we will continue to record the impacts of partial or full discounts during the applicable promotional periods.

- When we enter into contracts to provide services to our customers, we often charge installation or other upfront fees. Under current accounting rules, installation fees related to services provided over our cable networks are recognized as revenue during the period in which the installation occurs to the extent these fees are equal to or less than direct selling costs. Under ASU 2014-09, these fees will generally be deferred and recognized as revenue over the contractual period, or longer if the upfront fee results in a material renewal right.

As the above revenue recognition changes have offsetting impacts and both result in a relatively minor shift in the timing of revenue recognition, we do not expect ASU 2014-09 to have a material impact on our combined revenue.

ASU 2014-09 will also impact our accounting for certain upfront costs directly associated with obtaining and fulfilling customer contracts. Under our current policy, these costs are expensed as incurred unless the costs are in the scope of another accounting topic that allows for capitalization. Under ASU 2014-09, the upfront costs associated with contracts that have substantive termination penalties and a term of one year or more will be recognized as assets and amortized to operating costs and expenses over the applicable period benefited. Based on the current practices and contracts in effect in our various markets, we do not expect the initial impact of this accounting change to be significant.

We do not expect the adoption of ASU 2014-09 to have a significant impact on our revenue, operating expenses or financial position. In addition, we do not expect to make any significant changes to our internal control environment as a result of the adoption of ASU 2014-09.

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 with additional disclosures about leasing arrangements. ASU 2016-02 requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach, although the FASB has proposed an additional transition method to simplify the modified retrospective approach. The modified retrospective approach also includes a number of optional practical expedients an entity may elect to apply. 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. Although we are currently evaluating the effect that ASU 2016-02 will have on our combined 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 combined balance sheets for those leases classified as operating leases under current accounting principles generally accepted in the U.S. (**U.S. GAAP**). For a summary of our undiscounted future minimum lease payments under operating leases as of December 31, 2017, see note 15. We currently do not expect ASU 2016-02 to have a significant impact on our combined statements of operations or cash flows.

(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, share-based compensation and actuarial liabilities associated with certain benefit plans. Actual results could differ from those estimates.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation, including the reclassification of certain costs between programming and other direct costs of services, other operating and SG&A expenses.

Principles of Combination

The accompanying combined financial statements include the accounts of the entities described in note 1, all of which are voting interest entities where we or Liberty Global 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. All significant intercompany accounts and transactions have been eliminated in combination.

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 at the stated net asset value.

Restricted cash consists of cash held in restricted accounts, including cash held as collateral for debt and other compensating balances. Restricted cash amounts that are required to be used to purchase long-term assets or repay long-term debt are classified as long-term assets. All other 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, 2017 and 2016, our restricted cash balances were not material.

Our significant non-cash investing and financing activities are disclosed in our combined statements of deficit and in notes 8 and 9.

Cash Flow Statement

For purposes of determining the classification of cash flows in our combined statements of cash flows, payments or receipts on related-party loans are first applied to principal (included as cash flows from financing activities) and then to capitalized interest (included as cash flows from operating activities). Interest-bearing cash advances to related parties and repayments thereof are classified as investing activities. All other related-party borrowings, advances and repayments are reflected as financing activities.

For purposes of our combined statements of cash flows, expenses financed by an intermediary are treated as hypothetical operating cash outflows and hypothetical financing cash inflows when the expenses are incurred. When we pay the financing intermediary, we record financing cash outflows in our combined statements of cash flows.

Trade Receivables

Our trade receivables are reported net of an allowance for doubtful accounts. Such allowance aggregated €11.5 million and €13.9 million at December 31, 2017 and 2016, respectively. 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. We also manage this risk by disconnecting services to customers whose accounts are delinquent.

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 certain of our derivatives and debt, see notes 6 and 9, respectively. For information regarding how we arrive at certain of our fair value measurements, see note 7.

Derivative Instruments

All derivative instruments are recorded on the balance sheet at fair value. As we do not apply hedge accounting to any of our derivative instruments, changes in the fair values of our derivative instruments are recorded in realized and unrealized gains or losses on derivative instruments, net, in our combined 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 combined statements of cash flows based on the objective of the derivative instrument and the classification of the applicable underlying cash flows. For foreign currency forward contracts that are used to hedge capital expenditures, the net cash received or paid is classified as an adjustment to capital expenditures in our combined 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 combined statements of cash flows.

For information regarding our derivative instruments, see note 6.

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. Capitalized construction and installation costs include materials, labor and other directly attributable costs. 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. Interest capitalized with respect to construction activities was not material during any of the periods presented.

Capitalized internal-use software is included as a component of property and equipment. We capitalize internal and external costs directly associated with the development of internal-use software. We also capitalize costs associated with the purchase of software licenses. 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. 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 8.

Additions, replacements and improvements that extend the asset life are capitalized. Repairs and maintenance are charged to operations.

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 may arise from the loss of rights of way that we obtain from local municipalities or other relevant authorities, as well as our obligations under certain lease arrangements to restore the property to its original condition at the end of the lease term. Given the nature of our operations, most of our rights of way and certain leased premises are considered integral to our business. Accordingly, for most of our rights of way and certain lease agreements, the possibility is remote that we will incur significant removal costs in the foreseeable future and, as such, we do not have sufficient information to make a reasonable estimate of fair value for these asset retirement obligations.

As of December 31, 2017 and 2016, the recorded value of our asset retirement obligations was €5.8 million and €8.4 million, respectively.

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 value in connection with business combinations.

Goodwill is not amortized, but instead is 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 8.

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) an expectation of a sale or disposal of a long-lived asset or asset group, (ii) adverse changes in market or competitive conditions, (iii) an adverse change in legal factors or business climate in the markets in which we operate and (iv) 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 (a) sale prices for similar assets, (b) discounted estimated future cash flows using an appropriate discount rate and/or (c) 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 the carrying amount may not be recoverable. For impairment evaluations, 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. Any excess of the carrying amount over the fair value would be charged to operations as an impairment loss. A reporting unit is an operating segment or one level below an operating segment (referred to as a "component").

Income Taxes

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 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 subsidiaries 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 subsidiary has invested or will invest its undistributed earnings indefinitely, or that earnings will be remitted in a tax-free manner. Interest and penalties related to income tax liabilities are included in income tax benefit or expense in our combined statements of operations.

The Dutch entities of the UPC Holding Group are part of three fiscal unities. UPC Holding is the parent of the largest of these three fiscal unities (the **UPCH Fiscal Unity**). The UPCH Fiscal Unity is part of the larger fiscal unity of Liberty Global Holding B.V. (**Liberty Global Holding**), which consolidates individual entities and their ultimate Dutch parent company, as one taxpayer for Dutch tax purposes (the **LGH Fiscal Unity**). The LGH Fiscal Unity includes Dutch entities from the UPCH Fiscal Unity, as well as Dutch entities not included in these combined financial statements. The income taxes of the Dutch entities of the UPC Holding Group are presented in our combined statements of operations on a separate return basis for each tax paying entity or group. The individual entities of the Dutch fiscal unities are jointly and severally liable for all corporate income tax liabilities and the income taxes of their respective fiscal unity. For additional information on our income taxes, see note 10.

Foreign Currency Translation and Transactions

The reporting currency of our company is the euro. The functional currency of our foreign operations generally is the applicable local currency for each foreign entity and equity method investee. Assets and liabilities of foreign entities (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 combined 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 combined statements of deficit. 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 combined statements of cash flows. The impacts of material transactions generally are recorded at the applicable spot rates in our combined statements of operations and cash flows. The effect of exchange rates on cash balances held in foreign currencies are separately reported in our combined statements of cash flows.

Transactions denominated in currencies other than our or our combined entities' 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 combined balance sheets related to these non-functional currency transactions result in transaction gains and losses that are reflected in our combined statements of operations as unrealized (based on the applicable period end exchange rates) or realized upon settlement of the transactions.

Revenue Recognition

Service Revenue – Cable Networks. We recognize revenue from the provision of video, broadband internet and fixed-line telephony services over our cable network to customers in the period the related services are provided. Installation revenue (including reconnect fees) related to services provided over our cable network is recognized as revenue in the period during which the installation occurs to the extent these fees are equal to or less than direct selling costs, which costs are expensed as incurred. To the extent installation revenue exceeds direct selling costs, the excess revenue is deferred and amortized over the average expected life of the subscriber relationship.

Sale of Multiple Products and Services. We sell video, broadband internet, fixed-line telephony and, in most of our markets, mobile services to our customers in bundled packages at a rate lower than if the customer purchased each product on a standalone basis. Revenue from bundled packages generally is allocated proportionally to the individual services based on the relative standalone price for each respective service.

Mobile Revenue – General. Consideration from mobile contracts is allocated to the airtime service element and the handset service element based on the relative standalone prices of each element. The amount of consideration allocated to the handset is limited to the amount that is not contingent upon the delivery of future airtime services. Certain of our operations that provide mobile services offer handsets under a subsidized contract model, whereby upfront revenue recognition is limited to the upfront cash collected from the customer as the remaining monthly fees to be received from the customer, including fees that may be associated with the handset, are contingent upon delivering future airtime services. At certain of our operations, mobile customers may choose to enter into two distinct contractual relationships: (i) a mobile handset contract and (ii) a mobile airtime services contract (a **Split-contract Program**). Under the mobile handset contract, the customer takes full title to the handset upon delivery and typically has the option to either (a) pay for the handset in cash upon delivery or (b) pay for the handset in installments over a contractual period. Under these arrangements, the handset installment payments are not contingent upon delivering future airtime services and the consideration allocated to the handset is not limited to the upfront cash collected.

Mobile Revenue – Airtime Services. We recognize revenue from mobile services in the period the related services are provided. Revenue from pre-pay customers is recorded as deferred revenue prior to the commencement of services and revenue is recognized 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 delivered and title has passed. For customers under a mobile handset installment contract that is independent of a mobile airtime services contract, revenue is recognized upon delivery only if collectibility is reasonably assured. Our assessment of collectibility is based principally on internal and external credit assessments as well as historical collection information for similar customers. To the extent that collectibility of installment payments from the customer is not reasonably assured upon delivery of the handset, handset revenue is recognized on a cash basis as customer payments are received. Imputed interest attributable to installment payments for delivered goods is included in revenue.

*Business-to-Business (**B2B**) Revenue.* 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.

Promotional Discounts. For subscriber promotions, such as discounted or free services during an introductory period, revenue is recognized only to the extent of the discounted monthly fees charged to the subscriber, if any.

Subscriber Advance Payments and Deposits. Payments received in advance for the services we provide are deferred and recognized as revenue when the associated services are provided.

Sales, Use and Other VAT. Revenue is recorded net of applicable sales, use and other VAT.

Share-based Compensation

We recognize all share-based payments from Liberty Global to employees of our combined entities, including grants of employee share-based incentive awards, based on their grant date fair values and Liberty Global's estimates of forfeitures. We recognize the grant date fair value of outstanding awards as a charge to operations over the vesting period.

We use the straight-line method to recognize share-based compensation expense for Liberty Global's outstanding share awards to employees of our combined entities that do not contain a performance condition and the accelerated expense attribution method for our outstanding share awards that contain a performance condition and vest on a graded basis.

The grant date fair values for options, share appreciation rights (**SARs**) and performance-based share appreciation rights (**PSARs**) are estimated using the Black-Scholes option pricing model, and the grant date fair values for restricted share units (**RSUs**) and performance-based restricted share units (**PSUs**) are based upon the closing share price of Liberty Global ordinary shares on the date of grant. Liberty Global has calculated the expected life of options and SARs granted by Liberty Global to employees based on historical exercise trends. The expected volatility for options and SARs related to Liberty Global ordinary shares is generally based on a combination of (i) historical volatilities of Liberty Global ordinary shares for a period equal to the expected average life of the Liberty Global awards and (ii) volatilities implied from publicly traded Liberty Global options for Liberty Global ordinary shares.

Litigation Costs

Legal fees and related litigation costs are expensed as incurred.

(4) Acquisition

Pending Acquisition

On October 18, 2016, our subsidiary UPC Polska SP Z.o.o. (**UPC Poland**) entered into a definitive agreement to acquire the cable business of Multimedia Polska S.A. (**Multimedia**), the third-largest cable operator in Poland. On October 18, 2017, the Polish regulator issued a statement of objection against the proposed transaction on the basis that such transaction could restrict competition in a number of cities across the country. On March 23, 2018, UPC Poland withdrew its application for regulatory clearance to acquire Multimedia after failing to agree on revised commercial terms with the sellers that take into account current regulatory and market conditions. In addition, the agreement to acquire Multimedia has been terminated.

(5) Disposal

Pending Disposal

On December 22, 2017, we reached an agreement to sell our Austrian operations, "**UPC Austria**," to a third party for a total enterprise value of approximately €1.9 billion, subject to customary debt and working capital adjustments at completion. Closing of the transaction is subject to regulatory approval, which is not expected until the second half of 2018. The proceeds from the sale are expected to be used for general corporate purposes, which may include leverage reduction for the remaining UPC Holding borrowing group, re-investment into our business and support for Liberty Global's share repurchase program. In our segment presentation, UPC Austria is included in our Switzerland/Austria segment.

In addition, we have agreed to provide certain transitional services for a period of up to four years. These services principally comprise network and information technology-related functions. The annual charges will depend on the actual level of services required by the purchaser. Liberty Global will also allow the use of the UPC brand for a transitional period of up to three years as part of the transaction.

Effective with the signing of the agreement, we began accounting for UPC Austria as held for sale. Accordingly, we no longer depreciate or amortize the long-lived assets of UPC Austria. We have not presented UPC Austria as a discontinued operation as this transaction does not represent a strategic shift that will have a major effect on our financial results or operations. Long-lived assets classified as held for sale are measured at the lower of carrying amount or fair value less cost to sell. Since the aggregate carrying value of UPC Austria is less than the estimated fair value less cost to sell, no adjustment to the carrying value was necessary. The carrying amounts of the major classes of assets and liabilities that are classified as held for sale at December 31, 2017 are summarized below (in millions):

Assets:		
Current assets other than cash	€	33.6
Property and equipment, net		375.9
Goodwill		604.6
Other assets, net		2.7
Total assets	€	1,016.8
Liabilities:		
Current portion of debt and capital lease obligations	€	0.7
Other accrued and current liabilities		82.5
Other long-term liabilities		64.7
Total liabilities	€	147.9

Our combined statements of operations include aggregate earnings before income taxes attributable to UPC Austria of €62.8 million, €74.3 million and €83.8 million for 2017, 2016 and 2015, respectively, and aggregate earnings before income taxes attributable to parent entities of €56.6 million, €66.4 million and €78.0 million, respectively.

(6) 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, through our combined entities, we have entered into various derivative instruments to manage interest rate exposure and foreign currency exposure primarily with respect to the U.S. dollar (**$**), the euro (**€**), the Swiss franc (**CHF**), the Czech koruna (**CZK**), the Hungarian forint (**HUF**), the Polish zloty (**PLN**) and the Romanian lei (**RON**). We do not apply hedge accounting to our derivative instruments. Accordingly, changes in the fair values of most of our derivative instruments are recorded in realized and unrealized gains or losses on derivative instruments, net, in our combined statements of operations.

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

	December 31, 2017			December 31, 2016		
	Current	Long-term	Total	Current	Long-term	Total
	in millions					
Assets:						
Cross-currency and interest rate derivative contracts (a)	€ 109.9	€ 347.9	€ 457.8	€ 158.5	€ 461.4	€ 619.9
Foreign currency forward and option contracts	4.2	—	4.2	0.4	1.5	1.9
Other	0.4	0.5	0.9	0.2	0.2	0.4
Total	€ 114.5	€ 348.4	€ 462.9	€ 159.1	€ 463.1	€ 622.2
Liabilities:						
Cross-currency and interest rate derivative contracts (a)	€ 93.8	€ 538.2	€ 632.0	€ 158.6	€ 625.8	€ 784.4
Foreign currency forward and option contracts	1.7	—	1.7	4.3	—	4.3
Other	—	—	—	—	0.1	0.1
Total	€ 95.5	€ 538.2	€ 633.7	€ 162.9	€ 625.9	€ 788.8

(a) 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 gains (losses) of €14.9 million, (€18.5 million) and €26.6 million during 2017, 2016 and 2015, respectively. These amounts are included in realized and unrealized losses on derivative instruments, net, in our combined statements of operations. For further information regarding our fair value measurements, see note 7.

The details of our realized and unrealized losses on derivative instruments, net, are as follows:

	Year ended December 31,		
	2017	2016	2015
	in millions		
Cross-currency and interest rate derivative contracts	€ (170.9)	€ (21.8)	€ (41.3)
Foreign currency forward and option contracts	5.1	(6.2)	(1.8)
Other	0.6	(0.9)	0.8
Total	€ (165.2)	€ (28.9)	€ (42.3)

The net cash received or paid related to our derivative instruments is classified as an operating, investing or financing activity in our combined statements of cash flows based on the objective of the derivative instrument and the classification of the applicable underlying 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. The following table sets forth the classification of the net cash inflows (outflows) of our derivative instruments:

	Year ended December 31,		
	2017	**2016**	**2015**
		in millions	
Operating activities	€ (22.9)	€ 26.6	€ (111.9)
Investing activities	—	(2.5)	—
Financing activities	(137.7)	(255.1)	(229.7)
Total	€ (160.6)	€ (231.0)	€ (341.6)

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 is generally not posted by either party under our derivative instruments.

We have entered into derivative instruments under master agreements with each counterparty that contain master netting arrangements that are applicable in the event of early termination by either party to such derivative instrument. The master netting arrangements under each of these master agreements are limited to the derivative instruments governed by the relevant master agreement and are independent of similar agreements. At December 31, 2017, our exposure to counterparty credit risk included derivative assets with an aggregate fair value of €88.0 million.

Under our derivative contracts, it is generally only the non-defaulting party that has a contractual option to exercise early termination rights upon the default of the other counterparty and to set off other liabilities against sums due upon such termination. However, in an insolvency of a derivative counterparty, under the laws of certain jurisdictions, the defaulting counterparty or its insolvency representatives may be able to compel the termination of one or more derivative contracts and trigger early termination payment liabilities payable by us, reflecting any mark-to-market value of the contracts for the counterparty. Alternatively, or in addition, the insolvency laws of certain jurisdictions may require the mandatory set off of amounts due under such derivative contracts against present and future liabilities owed to us under other contracts between us and the relevant counterparty. Accordingly, it is possible that we may be subject to obligations to make payments, or may have present or future liabilities owed to us partially or fully discharged by set off as a result of such obligations, in the event of the insolvency of a derivative counterparty, even though it is the counterparty that is in default and not us. To the extent that we are required to make such payments, our ability to do so will depend on our liquidity and capital resources at the time. In an insolvency of a defaulting counterparty, we will be an unsecured creditor in respect of any amount owed to us by the defaulting counterparty, except to the extent of the value of any collateral we have obtained from that counterparty.

In addition, where a counterparty is in financial difficulty, under the laws of certain jurisdictions, the relevant regulators may be able to (i) compel the termination of one or more derivative instruments, determine the settlement amount and/or compel, without any payment, the partial or full discharge of liabilities arising from such early termination that are payable by the relevant counterparty or (ii) transfer the derivative instruments to an alternative counterparty.

Details of our Derivative Instruments

In the following tables, we present the details of the various categories of our derivative instruments, all of which are held by our subsidiary, UPC Broadband Holding B.V. (**UPC Broadband Holding**).

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 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 by using derivative instruments to synthetically convert unmatched debt into the applicable underlying currency. At December 31, 2017, substantially all of our debt was either directly or synthetically matched to the applicable functional currencies of the underlying operations. The following table sets forth the total notional amounts and the related weighted average remaining contractual lives of our cross-currency swap contracts at December 31, 2017 (in millions, except weighted average remaining life):

Notional amount due from counterparty		Notional amount due to counterparty			Weighted average remaining life
					in years
$	2,765.0	€	2,276.7		6.8
$	1,200.0	CHF	1,107.5	(a)	7.2
€	2,521.2	CHF	2,901.0	(a)	6.0
€	418.5	CZK	11,521.8		2.5
€	488.0	HUF	138,437.5		4.0
€	851.6	PLN	3,604.5		3.7
€	225.9	RON	650.0		4.1

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(a) Includes certain derivative instruments that are “forward-starting,” such that the initial exchange occurs at a date subsequent to December 31, 2017. These instruments are typically entered into in order to extend existing hedges without the need to amend existing contracts.

Interest Rate Swap Contracts

As noted above, we enter into interest rate swaps to protect against increases in the interest rates on our variable-rate debt. The following table sets forth the total euro equivalents of the notional amount and the related weighted average remaining contractual life of our interest rate swap contracts at December 31, 2017:

Pay fixed rate (a)			Receive fixed rate		
Notional amount		Weighted average remaining life	Notional amount		Weighted average remaining life
in millions		in years	in millions		in years
€	4,283.6	5.8	€	2,284.8	7.8

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(a) Includes forward-starting derivative instruments.

Interest Rate Swap Options

We have entered into various interest rate swap options (**swaptions)**, which give us the right, but not the obligation, to enter into certain interest rate swap contracts at set dates in the future, with each such contract having a life of no more than three years. At the transaction date, the strike rate of each of these contracts was above the corresponding market rate. The following table sets forth certain information regarding our swaptions at December 31, 2017:

Notional amount		Underlying swap currency	Weighted average option expiration period (a)	Weighted average strike rate (b)
in millions			in years	
€	820.7	CHF	1.0	1.11%

(a) Represents the weighted average period until the date on which we have the option to enter into the interest rate swap contracts.

(b) Represents the weighted average interest rate that we would pay if we exercised our option to enter into the interest rate swap contracts.

Basis Swaps

Our 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, 2017, the total euro equivalent of the notional amounts due from the counterparty, including forward-starting derivative instruments, was €1,642.9 million and the related weighted average remaining contractual life of our interest basis contracts was 1.0 year.

Interest Rate Collars

We enter into interest rate collar agreements that lock in a maximum interest rate if variable rates rise, but also allow our company to benefit, to a limited extent from declines in market rates. At December 31, 2017, the total euro equivalents of the notional amounts of our interest rate collars was €567.5 million.

Impact of Derivative Instruments on Borrowing Costs

Excluding forward-starting instruments or swaptions, the impact of the derivative instruments that mitigate our foreign currency and interest rate risk, as described above, was an increase of 42.0 basis points to our borrowing costs as of December 31, 2017.

Foreign Currency Forwards and Options

We enter into foreign currency forward and option contracts with respect to non-functional currency exposure. As of December 31, 2017, the total euro equivalent of the notional amount of foreign currency forward and option contracts was €401.9 million.

(7) Fair Value Measurements

We use the fair value method to account for our derivative instruments. The reported fair values of these instruments as of December 31, 2017 likely will not represent the value that will be paid or received upon the ultimate settlement or disposition of these assets and liabilities.

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. We record transfers of assets or liabilities into or out of Levels 1, 2 or 3 at the beginning of the quarter during which the transfer occurred. During 2017, no such transfers were made.

All of our Level 2 inputs (interest rate futures and swap rates) and certain of our Level 3 inputs (forecasted volatilities 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. 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.

As further described in note 6, we have entered into various derivative instruments to manage our interest rate and foreign currency exchange risk. The recurring fair value measurements of these instruments are determined using discounted cash flow models. With the exception of the inputs for certain swaptions, 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 instruments. This observable data mostly includes currency rates, 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. Effective January 1, 2017, we incorporated a Monte Carlo based approach into our calculation of the value assigned to the risk that we or our counterparties will default on our respective derivative obligations. Previously, we used a static calculation derived from our most current mark-to-market valuation to calculate the impact of counterparty credit risk. The adoption of a Monte Carlo based approach did not have a material impact on the overall fair value of our derivative instruments. The inputs used for our credit risk valuations, including 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 these parameters to have a significant impact on the valuations of these instruments, we have determined that these valuations (other than the valuations of the aforementioned swaptions) fall under Level 2 of the fair value hierarchy. Due to the lack of Level 2 inputs for the swaption valuations, we believe these valuations fall under Level 3 of the fair value hierarchy. Our credit risk valuation adjustments with respect to our cross-currency and interest rate swaps are quantified and further explained in note 6.

Fair value measurements are also used in connection with nonrecurring valuations performed in connection with impairment assessments and acquisition accounting. These nonrecurring valuations include the valuation of reporting units, customer relationship and other intangible assets and property and equipment. Unless a reporting unit has a readily determinable fair value, the valuation of reporting units is based at least in part on discounted cash flow analyses. 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. 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 requires us to estimate the specific cash flows expected from the customer relationship, considering such factors as estimated customer life, the revenue expected to be generated over the life of the customer relationship, contributory asset charges and other factors. Tangible assets are 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. All of our nonrecurring valuations use significant unobservable inputs and therefore fall under Level 3 of the fair value hierarchy. We did not perform significant nonrecurring fair value measurements during 2017, 2016 or 2015.

At December 31, 2017, all of our derivative instruments fell under Level 2 of the fair value hierarchy, with the exception of the aforementioned Level 3 swaptions, which have a net liability position of €1.9 million. At December 31, 2016, all of our derivative instruments fell under Level 2 of the fair value hierarchy.

(8) Long-lived Assets

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, 2017	December 31, 2017	December 31, 2016
		in millions	
Distribution systems	3 to 30 years	€ 3,516.7	€ 3,829.8
Customer premises equipment	5 years	1,030.5	1,176.3
Support equipment, buildings and land	3 to 50 years	365.0	447.9
		4,912.2	5,454.0
Accumulated depreciation		(2,713.4)	(2,944.7)
Total property and equipment, net		€ 2,198.8	€ 2,509.3

Depreciation expense related to our property and equipment was €539.6 million, €517.1 million and €518.7 million during 2017, 2016 and 2015, respectively.

At December 31, 2017 and 2016, the amount of property and equipment, net, recorded under capital leases was €80.7 million and €28.1 million, respectively. Most of these amounts relate to assets included in our distribution systems category. Depreciation of assets under capital leases is included in depreciation and amortization in our combined statements of operations.

During 2017, 2016 and 2015, we recorded non-cash increases to our property and equipment related to (i) certain vendor financing arrangements of €622.9 million, €640.0 million and €517.8 million, respectively, which exclude related VAT of €70.0 million, €63.5 million and €55.3 million, respectively, that were also financed by our vendors under these arrangements and (ii) assets acquired under capital leases of €60.3 million, €12.2 million and €1.0 million, respectively. Furthermore, during 2017, 2016 and 2015, we recorded non-cash increases to our property and equipment of €14.6 million,€17.3 million and €16.0 million, respectively, related to assets acquired on our behalf pursuant to vendor financing and capital lease arrangements of Liberty Global B.V. (**LG B.V.**), a subsidiary of Liberty Global that is outside of the UPC Holding Group. For additional information, see notes 9 and 12.

Goodwill

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

	January 1, 2017	Acquisitions and related adjustments	Reclassification to assets held for sale (a)	Foreign currency translation adjustments	December 31, 2017
			in millions		
Switzerland/Austria	€ 3,264.7	€ —	€ (604.6)	€ (221.7)	€ 2,438.4
Central and Eastern Europe	1,085.1	1.0	—	39.8	1,125.9
Total	€ 4,349.8	€ 1.0	€ (604.6)	€ (181.9)	€ 3,564.3

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(a) Represents goodwill associated with the pending sale of UPC Austria, which we began accounting for as held for sale on December 22, 2017. For additional information, see note 5.

If, among other factors, (i) our enterprise value or Liberty Global's equity value were to decline significantly or (ii) the adverse impacts of economic, competitive, regulatory or other factors 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, 2017 and 2016 and based on exchange rates as of those dates, our accumulated goodwill impairments were €166.5 million and €171.1 million, respectively. These amounts represent accumulated impairments related to our broadband communications operations in Romania, which operations are included within our Central and Eastern Europe segment (as defined in note 16).

Changes in the carrying amount of our goodwill during 2016 are set forth below:

	January 1, 2016	Acquisitions and related adjustments	Foreign currency translation adjustments	December 31, 2016
	in millions			
Switzerland/Austria	€ 3,221.4	€ 10.4	€ 32.9	€ 3,264.7
Central and Eastern Europe	1,092.3	1.6	(8.8)	1,085.1
Total	€ 4,313.7	€ 12.0	€ 24.1	€ 4,349.8

Intangible Assets Subject to Amortization, Net

The details of our intangible assets subject to amortization are set forth below:

		December 31, 2017			December 31, 2016		
	Estimated useful life at December 31, 2017	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
		in millions					
Customer relationships	4 to 10 years	€ 232.7	€ (161.2)	€ 71.5	€ 256.8	€ (158.2)	€ 98.6
Other		—	—	—	3.3	(2.9)	0.4
Total		€ 232.7	€ (161.2)	€ 71.5	€ 260.1	€ (161.1)	€ 99.0

Amortization expense related to intangible assets with finite useful lives was €31.8 million, €31.3 million and €53.4 million during 2017, 2016 and 2015, respectively. Based on our amortizable intangible asset balances at December 31, 2017, we expect that amortization expense will be as follows for the next five years and thereafter. The euro equivalents of such amortization expense amounts as of December 31, 2017 are presented below (in millions):

2018	€ 28.9
2019	10.6
2020	8.2
2021	7.0
2022	4.8
Thereafter	12.0
Total	€ 71.5

(9) Debt and Capital Lease Obligations

The euro equivalents of the components of our combined third-party debt are as follows:

	December 31, 2017		Estimated fair value (c)		Principal amount	
	Weighted average interest rate (a)	Unused borrowing capacity (b)	December 31, 2017	December 31, 2016	December 31, 2017	December 31, 2016
			in millions			
Parent entities – UPC Holding Senior Notes	4.56%	€ —	€ 1,058.5	€ 1,488.3	€ 1,092.5	€ 1,376.2
Combined entities:						
UPCB SPE Notes	4.50%	—	2,195.0	1,691.2	2,148.4	1,680.9
UPC Holding Bank Facility	3.69%	990.1	2,143.2	2,666.1	2,142.8	2,638.5
Vendor financing (d)	3.26%	—	692.6	736.7	692.6	736.7
Total third-party debt before deferred financing costs and discounts	4.08%	€ 990.1	€ 6,089.3	€ 6,582.3	€ 6,076.3	€ 6,432.3

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

	December 31, 2017	December 31, 2016
	in millions	
Total debt before deferred financing costs and discounts	€ 6,076.3	€ 6,432.3
Deferred financing costs and discounts, net	(43.9)	(44.0)
Total carrying amount of third-party debt	6,032.4	6,388.3
Capital lease obligations	79.7	31.7
Total third-party debt and capital lease obligations	6,112.1	6,420.0
Related-party debt (note 12)	6,700.5	6,161.4
Total debt and capital lease obligations	12,812.6	12,581.4
Current maturities of debt and capital lease obligations	(664.2)	(740.8)
Long-term debt and capital lease obligations	€ 12,148.4	€ 11,840.6

(a) Represents the weighted average interest rate in effect at December 31, 2017 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 deferred financing costs, our weighted average interest rate on our aggregate variable- and fixed-rate indebtedness was 4.56% at December 31, 2017. For information regarding our derivative instruments, see note 6.

(b) Unused borrowing capacity represents the maximum availability under the UPC Holding Bank Facility (as defined and described below) at December 31, 2017 without regard to covenant compliance calculations or other conditions precedent to borrowing. At December 31, 2017, based on the applicable leverage covenants, the full €990.1 million of unused borrowing capacity under the UPC Holding Bank Facility was available to be borrowed. When the relevant December 31, 2017 compliance reporting requirements have been completed and assuming no changes from December 31, 2017 borrowing levels, we anticipate that the full amount of unused borrowing capacity under the UPC Holding Bank Facility will continue to be available to be borrowed.

(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). For additional information regarding fair value hierarchies, see note 7.

(d) Represents amounts owed pursuant to interest-bearing vendor financing arrangements that are used to finance certain of our property and equipment additions and, to a lesser extent, certain of our operating expenses. These obligations are generally due within one year and include VAT that was paid on our behalf by the vendor. At December 31, 2017 and 2016, the amounts owed pursuant to these arrangements include €3.7 million and €12.8 million, respectively, related to third-party capital-related vendor financing obligations for which we and LG B.V. are co-obligors. We expect to cash settle the co-obligor obligations with LG B.V. in advance of when we and LG B.V. are required to settle the obligations with the applicable third parties. Our cash payments to LG B.V. will be reflected as cash capital expenditures in our combined statements of cash flows and any cash payments made prior to the settlement of the related co-obligor obligation will be reflected in our related-party accounts receivable from LG B.V. in our combined balance sheets. Repayments of vendor financing obligations other than the co-obligor obligations are included in repayments and repurchases of third-party debt and capital lease obligations in our combined statements of cash flows.

General Information

Credit Facility. We have entered into a credit facilities agreement with certain financial institutions (the "**credit facility**"). Our credit facility contains certain covenants, the more notable of which are as follows:

- Our credit facility contains certain consolidated net leverage ratios, as specified in the credit facility, which are required to be complied with (i) on an incurrence basis and/or (ii) when the associated revolving credit facility has been drawn beyond a specified percentage of the total available revolving credit commitments, on a maintenance basis;

- Subject to certain customary and agreed exceptions, our credit facility contains certain restrictions which, among other things, restrict our ability to (i) incur or guarantee certain financial indebtedness, (ii) make certain disposals and acquisitions, (iii) create certain security interests over our assets and (iv) make certain restricted payments to our direct and/or indirect parent companies through dividends, loans or other distributions;

- Our credit facility requires that we (i) guarantee the payment of all sums payable under the credit facility and (ii) grant first-ranking security over our shares and certain intercompany loan receivables to secure the payment of all sums payable thereunder;

- In addition to certain mandatory prepayment events, the instructing group of lenders under our credit facility, under certain circumstances, may cancel the group's commitments thereunder and declare the loan(s) thereunder due and payable after the applicable notice period following the occurrence of a change of control (as specified in our credit facility);

- Our credit facility contains certain customary events of default, the occurrence of which, subject to certain exceptions, materiality qualifications and cure rights, would allow the instructing group of lenders to (i) cancel the total commitments, (ii) declare that all or part of the loans be payable on demand and/or (iii) accelerate all outstanding loans and terminate their commitments thereunder;

- Our credit facility requires that we 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 facility includes certain cross-default and cross-acceleration provisions with respect to other indebtedness, subject to agreed minimum thresholds and other customary and agreed exceptions.

Senior Notes. We have issued certain senior notes. In general, our senior notes (i) are senior obligations that rank equally with all of the existing and future senior debt of the issuer and are senior to all existing and future subordinated debt of the issuer and (ii) are secured by a pledge over the shares of UPC Holding. In addition, the indentures governing our senior notes contain certain covenants, the more notable of which are as follows:

- Subject to certain materiality qualifications and other customary and agreed exceptions, our notes contain (i) certain customary incurrence-based covenants and (ii) certain restrictions that, among other things, restrict our ability to (a) incur or guarantee certain financial indebtedness, (b) make certain disposals and acquisitions, (c) create certain security interests over our assets and (d) make certain restricted payments to our direct and/or indirect parent companies through dividends, loans or other distributions;

- 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, over agreed minimum thresholds (as specified under the applicable indenture), is an event of default under the respective notes; and

- If we or certain of our combined entities (as specified in the applicable indenture) sell certain assets, we must, subject to certain customary and agreed exceptions, offer to repurchase the applicable notes at par, or if a change of control (as specified in the applicable indenture) occurs, we must offer to repurchase all of the relevant notes at a redemption price of 101%.

SPE Notes. From time to time, we create special purpose financing entities, which are 100% owned by third parties, for the primary purpose of facilitating the offering of senior secured notes, which we collectively refer to as the "**UPCB SPE Notes**." In this regard, UPCB SPE Notes have been issued, and are outstanding at December 31, 2017, by UPCB Finance IV Limited (**UPCB Finance IV**) and UPCB Finance VII Limited (**UPCB Finance VII**), collectively the "**UPCB SPEs**".

As further described below, the UPCB SPEs used the proceeds from the issuance of UPCB SPE Notes to fund term loan facilities to UPC Financing Partnership (**UPC Financing**), each a "**UPC Funded Facility**" and collectively the "**UPC Funded Facilities**." Each UPCB SPE is dependent on payments from UPC Financing under the applicable UPC Funded Facility in order to service its payment obligations under each respective UPCB SPE Note. Although UPC Financing has no equity or voting interest in the UPCB SPEs, the UPC Funded Facilities create a variable interest in the UPCB SPEs for which UPC Financing is the primary beneficiary. As such, UPC Financing is required to consolidate the UPCB SPEs. As a result, the amounts outstanding under the UPC Funded Facilities are eliminated in the UPC Holding Group's combined financial statements.

Pursuant to the respective indentures for the UPCB SPE Notes (the **UPCB SPE Indentures**) and the respective accession agreements for the UPC Funded Facilities, the call provisions, maturity and applicable interest rate for each UPC Funded Facility are the same as those of the related UPCB SPE Notes. Each UPCB SPE, as a lender under the credit facility, is treated the same as the other lenders under the credit facility with benefits, rights and protections similar to those afforded to the other lenders. Through the covenants in the applicable UPCB SPE Indentures and the applicable security interests over (i) all of the issued shares of the UPCB SPEs and (ii) the UPCB SPEs's rights under the UPC Funded Facilities granted to secure the UPCB SPEs's obligations under the relevant UPCB SPE Notes, the holders of the UPCB SPE Notes are provided indirectly with the benefits, rights, protections and covenants granted to the UPCB SPEs as lenders under the credit facility. The UPCB SPEs are prohibited from incurring any additional indebtedness, subject to certain exceptions under the UPCB SPE Indentures.

UPC Holding Senior Notes

The details of the UPC Holding Senior Notes as of December 31, 2017 are summarized in the following table:

UPC Holding Senior Notes	Maturity	Interest rate	Outstanding principal amount: Borrowing currency	Outstanding principal amount: Euro equivalent	Estimated fair value	Carrying value (a)
				in millions		
UPC Holding 3.875% Senior Notes	June 15, 2029	3.875%	€ 635.0	€ 635.0	€ 611.5	€ 630.9
UPC Holding 5.50% Senior Notes	January 15, 2028	5.500%	$ 550.0	457.5	447.0	454.1
Total				€ 1,092.5	€ 1,058.5	€ 1,085.0

(a) Amounts are net of discounts and deferred financing costs, where applicable.

Subject to the circumstances described below, the UPC Holding 3.875% Senior Notes are non-callable until June 15, 2022 and the UPC Holding 5.50% Senior Notes are non-callable until October 15, 2022. At any time prior to June 15, 2022, in the case of the UPC Holding 3.875% Senior Notes, and October 15, 2022, in the case of the UPC Holding 5.50% Senior Notes, the UPC Holding Group may redeem some or all of such UPC Holding Senior Notes by paying a "make-whole" premium, which is the present value of all scheduled interest payments until June 15, 2022 or October 15, 2022 (as applicable) using the discount rate (as specified in the applicable indenture) as of the redemption date, plus 50 basis points.

We may redeem some or all of the UPC Holding Senior Notes 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 applicable indenture), if any, to the applicable redemption date, as set forth below:

	Redemption price: UPC Holding 3.875% Senior Notes	Redemption price: UPC Holding 5.50% Senior Notes
12-month period commencing	June 15	October 15
2022	101.938%	102.750%
2023	100.969%	101.375%
2024	100.484%	100.688%
2025 and thereafter	100.000%	100.000%

UPCB SPE Notes

The details of the UPCB SPE Notes as of December 31, 2017 are summarized in the following table:

UPCB SPE Notes	Maturity	Interest rate	Original issue amount	Outstanding principal amount: Borrowing currency	Outstanding principal amount: Euro equivalent	Estimated fair value	Carrying value (a)
					in millions		
UPCB Finance IV Dollar Notes....	January 15, 2025	5.375%	$ 1,140.0	$ 1,140.0	€ 948.4	€ 957.2	€ 942.6
UPCB Finance IV Euro Notes	January 15, 2027	4.000%	€ 600.0	€ 600.0	600.0	637.4	595.6
UPCB Finance VII Euro Notes	June 15, 2029	3.625%	€ 600.0	€ 600.0	600.0	600.4	594.8
Total					€ 2,148.4	€ 2,195.0	€ 2,133.0

(a) Amounts are net of discounts and deferred financing costs, where applicable.

Subject to the circumstances described below, the UPCB Finance IV Dollar Notes are non-callable until January 15, 2020, the UPCB Finance IV Euro Notes are non-callable until January 15, 2021 and the UPCB Finance VII Euro Notes are non-callable until June 15, 2022 (each a **UPCB SPE Notes Call Date**). If, however, at any time prior to the applicable UPCB SPE Notes Call Date, all or a portion of the loans under the related UPC Funded Facility are voluntarily prepaid (an **Early Redemption Event**), then the relevant UPCB SPE will be required to redeem an aggregate principal amount of its UPCB SPE Notes equal to the aggregate principal amount of the loans so prepaid under the relevant UPC Funded Facility. In general, the redemption price payable will equal 100% of the principal amount of the applicable UPCB SPE Notes to be redeemed and a “make-whole” premium, which is the present value of all remaining scheduled interest payments to the applicable UPCB SPE Notes Call Date using the discount rate (as specified in the applicable UPCB SPE Indenture) as of the redemption date plus 50 basis points.

Upon the occurrence of an Early Redemption Event on or after the UPCB SPE Notes Call Date, the relevant UPCB SPE will redeem an aggregate principal amount of its UPCB SPE Notes equal to the principal amount of the related UPC Funded Facility prepaid 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 applicable UPCB SPE Indenture), if any, to the applicable redemption date as set forth below:

	Redemption price: UPCB Finance IV Dollar Notes	Redemption price: UPCB Finance IV Euro Notes	Redemption price: UPCB Finance VII Euro Notes
12-month period commencing	January 15	January 15	June 15
2020	102.688%	N.A.	N.A.
2021	101.792%	102.000%	N.A.
2022	100.896%	101.000%	101.813%
2023	100.000%	100.500%	100.906%
2024	100.000%	100.000%	100.453%
2025 and thereafter	N.A.	100.000%	100.000%

UPC Holding Bank Facility

The UPC Holding Bank Facility is the senior secured credit facility of certain combined entities of the UPC Holding Group. The details of our borrowings under the UPC Holding Bank Facility as of December 31, 2017 are summarized in the following table:

UPC Holding Bank Facility	Maturity	Interest rate	Facility amount (in borrowing currency) (a)		Outstanding principal amount		Unused borrowing capacity		Carrying value (b)	
					in millions					
AK (c)	January 15, 2027	4.000%	€	600.0	€	600.0	€	—	€	595.6
AL (c)	January 15, 2025	5.375%	$	1,140.0		948.4		—		942.6
AM (d)	December 31, 2021	EURIBOR + 2.75%	€	990.1		—		990.1		—
AQ (c)	June 15, 2029	3.625%	€	600.0		600.0		—		594.8
AR (e)	January 15, 2026	LIBOR + 2.50%	$	1,975.0		1,642.8		—		1,624.5
AS (f)	October 15, 2026	EURIBOR + 2.75%	€	500.0		500.0		—		497.3
Elimination of Facilities AK, AL and AQ in consolidation (c)						(2,148.4)		—		(2,133.0)
Total					€	2,142.8	€	990.1	€	2,121.8

(a) Except as described in (c) below, amounts represent total third-party facility amounts at December 31, 2017.

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

(c) As further discussed in the above description of the UPCB SPE Notes, the amounts borrowed by UPC Financing Partnership outstanding under UPC Facilities AK, AL and AQ are eliminated in our combined financial statements.

(d) UPC Facility AM has a fee on unused commitments of 1.1% per year.

(e) UPC Facility AR has a LIBOR floor of 0.0%.

(f) UPC Facility AS has a EURIBOR floor of 0.0%.

2017 Refinancing Transactions

In February 2017, we entered into a new $2,150.0 million (€1,788.5 million) term loan facility (**UPC Facility AP**). The net proceeds from UPC Facility AP, together with existing cash, were used to prepay in full the $2,150.0 million outstanding principal amount under UPC Facility AN. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of €8.4 million related to the write-off of unamortized discounts and deferred financing costs.

In June 2017, UPCB Finance VII issued the UPCB Finance VII Euro Notes. UPCB Finance VII used the proceeds from the UPCB Finance VII Euro Notes to fund UPC Facility AQ, an additional facility under the UPC Holding Bank Facility, with a subsidiary of UPC Holding as the borrower. The net proceeds from UPC Facility AQ were used, together with existing cash, to prepay in full the €600.0 million outstanding principal amount under UPC Facility AO. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of €4.8 million related to the write-off of unamortized discounts and deferred financing costs.

In June 2017, we issued the UPC Holding 3.875% Senior Notes. The net proceeds from the UPC Holding 3.875% Senior Notes were initially placed in escrow and subsequently used in a non-cash transaction to redeem in full the €600.0 million outstanding principal of the UPC Holding 6.375% Senior Notes. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of €32.7 million. This loss includes (i) the payment of €26.6 million of redemption premiums and (ii) the write-off of €6.1 million of unamortized discounts and deferred financing costs.

In October 2017, we (i) entered into UPC Facility AR, (ii) entered into UPC Facility AS and (iii) issued the UPC Holding 5.50% Senior Notes. The net proceeds from UPC Facility AR, UPC Facility AS and the UPC Holding 5.50% Senior Notes were used to (a) prepay in full the $2,150.0 million (€1,788.5 million) outstanding principal amount under UPC Facility AP, (b) redeem in full the €450.0 million outstanding principal of the UPC Holding 6.75% Euro Senior Notes and (c) redeem in full the CHF 350.0 million (€299.0 million) outstanding principal of the UPC Holding 6.75% CHF Senior Notes. In connection with these transactions, we recognized a loss on debt modification and extinguishment, net, of €51.1 million related to (1) the payment of €45.6 million of redemption premiums and (2) the write-off of €5.5 million of unamortized discounts and deferred financing costs.

2016 and 2015 Refinancing Transactions

During 2016 and 2015, we completed a number of refinancing transactions that generally resulted in lower interest rates and extended maturities. In connection with these transactions, we recognized losses on debt modification and extinguishment, net, of €70.3 million and €183.9 million during 2016 and 2015, respectively. These losses include (i) the payment of redemption premiums of €52.3 million and €149.2 million, respectively, and (ii) the write-off of unamortized discounts and deferred financing costs of €18.0 million and €34.7 million, respectively.

Maturities of Debt and Capital Lease Obligations

Maturities of our debt and capital lease obligations as of December 31, 2017 are presented below and such amounts represent euro equivalents based on December 31, 2017 exchange rates:

	Third-party debt (a)	Related-party debt	Capital lease obligations	Total
		in millions		
Year ended December 31:				
2018	€ 654.0	€ —	€ 14.2	€ 668.2
2019	4.4	—	14.0	18.4
2020	13.6	—	14.0	27.6
2021	12.1	—	14.9	27.0
2022	8.1	—	11.7	19.8
Thereafter	5,384.1	6,700.5	27.7	12,112.3
Total debt maturities	6,076.3	6,700.5	96.5	12,873.3
Deferred financing costs and discounts, net	(43.9)	—	—	(43.9)
Amounts representing interest	—	—	(16.8)	€ (16.8)
Total	€ 6,032.4	€ 6,700.5	€ 79.7	€ 12,812.6
Current portion	€ 654.0	€ —	€ 10.2	€ 664.2
Noncurrent portion	€ 5,378.4	€ 6,700.5	€ 69.5	€ 12,148.4

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(a) Amounts include the UPCB SPE Notes issued by the UPCB SPEs. As described above, the UPCB SPEs are included in the UPC Holding Group's combined financial statements.

Non-cash Financing Transactions

During 2017, 2016 and 2015, certain of our financing transactions included non-cash borrowings and repayments of debt aggregating €4,285.9 million (excluding a €600.0 million non-cash repayment of debt from proceeds held in escrow), €1,815.7 million and €1,378.4 million, respectively.

(10) Income Taxes

The Dutch entities of the UPC Holding Group are part of three fiscal unities. UPC Holding is the parent of the UPCH Fiscal Unity. The UPCH Fiscal Unity is part of LGH Fiscal Unity, which consolidates individual entities and their ultimate Dutch parent company as one taxpayer for Dutch tax purposes. The LGH Fiscal Unity includes Dutch entities from the UPCH Fiscal Unity, as well as Dutch entities not included in these combined financial statements. Tax amounts allocated between members of the LGH Fiscal Unity are not subject to tax-sharing agreements and no cash payments are made between the companies related to the Dutch tax attributes. Accordingly, any related-party tax allocations are reflected as an adjustment to parent entities in our combined statements of deficit. During the periods presented in these combined financial statements, all related-party tax allocations represented tax benefits generated by Dutch entities that were recorded net of applicable valuation allowances. Therefore, these related-party tax allocations resulted in no net tax allocations. The income taxes of entities that are not included within the UPCH Fiscal Unity are included in our combined financial statements on a separate return basis for each tax-paying entity or group based on the local tax law.

For tax purposes, the net operating losses generated in the year by Dutch entities of the UPCH Fiscal Unity can be offset with taxable income of non-UPC Holding Group subsidiaries within the LGH Fiscal Unity. The UPCH Fiscal Unity and LGH Fiscal Unity do not operate under a tax sharing agreement and no cash payments are made between the companies related to Dutch tax liabilities.

The domestic Dutch fiscal unities and foreign components of our loss before income taxes are as follows:

	Year ended December 31,		
	2017	2016	2015
		in millions	
Domestic (Dutch)	€ (569.1)	€ (804.5)	€ (1,207.4)
Foreign:			
Switzerland	112.7	246.0	353.4
Other	(22.0)	(63.5)	(61.3)
Total	€ (478.4)	€ (622.0)	€ (915.3)

Income tax expense consists of:

	Current	Deferred	Total
		in millions	
Year ended December 31, 2017:			
Domestic (Dutch)	€ (0.3)	€ —	€ (0.3)
Foreign:			
Switzerland	(3.3)	12.0	8.7
Other	(17.6)	(5.7)	(23.3)
Total	€ (21.2)	€ 6.3	€ (14.9)
Year ended December 31, 2016:			
Domestic (Dutch)	€ (0.2)	€ —	€ (0.2)
Foreign:			
Switzerland	(43.6)	5.2	(38.4)
Other	(17.0)	(1.7)	(18.7)
Total	€ (60.8)	€ 3.5	€ (57.3)
Year ended December 31, 2015:			
Domestic (Dutch)	€ —	€ —	€ —
Foreign:			
Switzerland	(56.9)	(13.9)	(70.8)
Other	(18.2)	3.5	(14.7)
Total	€ (75.1)	€ (10.4)	€ (85.5)

Income tax expense attributable to our loss before income taxes differs from the amounts computed using the Dutch income tax rate of 25.0%, as a result of the following factors:

	Year ended December 31,		
	2017	2016	2015
		in millions	
Computed "expected" tax benefit	€ 119.6	€ 155.5	€ 228.8
Change in valuation allowances	(108.4)	(179.6)	(269.8)
Non-deductible or non-taxable interest and other expenses	(57.7)	(44.3)	(52.0)
Basis and other differences in the treatment of items associated with investments in the UPC Holding Group entities	30.1	3.2	0.6
Recognition of previously unrecognized tax benefits	7.0	7.1	4.3
Other, net	(5.5)	0.8	2.6
Total income tax expense	€ (14.9)	€ (57.3)	€ (85.5)

The components of our deferred tax liabilities are as follows:

	December 31,	
	2017	2016
	in millions	
Deferred tax assets (a)	€ 20.2	€ 20.5
Deferred tax liabilities (a)	(38.9)	(98.7)
Net deferred tax liability	€ (18.7)	€ (78.2)

(a) Our deferred tax assets and liabilities are included in other assets, net, and other long-term liabilities, respectively, in our combined balance sheets.

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, 2017	December 31, 2016
	in millions	
Deferred tax assets:		
Net operating loss and other carryforwards	€ 2,328.7	€ 2,356.7
Debt	29.9	92.1
Intangible assets	49.9	50.0
Derivative instruments	46.9	41.7
Property and equipment, net	21.2	21.3
Other future deductible amounts	13.7	25.1
Deferred tax assets	2,490.3	2,586.9
Valuation allowance	(2,447.5)	(2,507.0)
Deferred tax assets, net of valuation allowance	42.8	79.9
Deferred tax liabilities:		
Property and equipment, net	(39.1)	(64.0)
Intangible assets	(11.4)	(47.2)
Other future taxable amounts	(11.0)	(46.9)
Deferred tax liabilities	(61.5)	(158.1)
Net deferred tax liability	€ (18.7)	€ (78.2)

Our deferred income tax valuation allowance decreased €59.5 million during 2017. This decrease reflects the net effect of (i) the decrease in deferred tax assets due to the expiration of net operating losses, (ii) the net tax expense related to our combined operations of €108.4 million and (iii) other individually insignificant items.

The significant components of our tax loss carryforwards and related tax assets at December 31, 2017 are as follows:

Country	Tax loss carryforward	Related tax asset	Expiration date
	in millions		
The Netherlands	€ 7,954.8	€ 1,988.7	2018-2026
Luxembourg	676.8	176.0	Indefinite
France	477.7	138.4	Indefinite
Hungary	169.6	15.3	2020-2025
Other	62.3	10.3	Various
Total	€ 9,341.2	€ 2,328.7	

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. Most of the tax losses shown in the above table are not expected to be realized, including certain losses that are limited in use due to change in control or same business tests. In addition, the pre-fiscal unity losses in the Netherlands of the UPCH Fiscal Unity can only be offset with profits that occur within these groups. Losses that relate to the UPCH Fiscal Unity can also be offset against profits of other entities within the LGH Fiscal Unity.

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 and our combined entities file combined and standalone 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 our company or our combined entities for years prior to 2011 are no longer subject to examination by tax authorities.

The changes in our unrecognized tax benefits are summarized below:

	2017	2016	2015
		in millions	
Balance at January 1	€ 18.5	€ 19.6	€ 21.2
Reductions for tax positions of prior years	(8.4)	(4.4)	—
Additions based on tax positions related to the current year	0.7	10.1	1.0
Foreign currency translation	—	(5.4)	0.4
Lapse of statute of limitations	—	(1.6)	(2.4)
Additions for tax positions of prior years	—	0.2	—
Reductions for tax positions of current year	—	—	(0.6)
Balance at December 31	€ 10.8	€ 18.5	€ 19.6

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

As of December 31, 2017, our unrecognized tax benefits included €5.2 million of tax benefits that 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 and other factors.

No assurance can be given as to the nature or impact of any changes in our unrecognized tax positions during 2018.

On February 22, 2018, the European Court of Justice ruled that certain interest limitation rules designed to prevent base erosion under Dutch tax law violates the European Union (**E.U.**) freedom of establishment. In the absence of guidance and regulation from the tax authorities, the impact of this ruling and the remedial measures announced by the Dutch government on October 25, 2017 regarding the UPCH Fiscal Unity is unclear at this point. We do not currently expect that this ruling will materially impact our effective tax rate.

(11) Combined Deficit

Distributions

As further described in note 12, we converted certain related-party receivables to equity during 2015 in connection with the Ziggo Services Transfer and the Corporate Entities Transfer, resulting in an aggregate non-cash capital distribution of €230.9 million.

Contributions

As further described in note 12, we recorded charges from another subsidiary of Liberty Global during 2017, 2016 and 2015 of €5.7 million, €27.3 million and €33.3 million respectively, related to the contribution of technology-related services, which are reflected as deemed contributions in our combined statements of deficit. During 2017, we recorded a non-cash contribution of €135.5 million and a cash contribution of €44.5 million from other subsidiaries of Liberty Global in connection with the Slovakia Transaction. During 2015, we recorded non-cash contributions (i) from other subsidiaries of Liberty Global of an aggregate €953.4 million and (ii) €689.2 million in connection with the Ziggo Services Transfer.

(12) Related-party Transactions

Our related-party transactions are as follows:

	Year ended December 31,		
	2017	2016	2015
		in millions	
Credits (charges) included in:			
Revenue	€ 1.6	€ 1.8	€ 2.3
Programming and other direct costs of services	(9.6)	(9.4)	(9.9)
Other operating	(0.2)	(1.4)	(5.4)
SG&A	(1.5)	3.4	5.9
Allocated share-based compensation expense	(10.2)	(17.0)	(12.1)
Fees and allocations, net:			
Operating and SG&A (exclusive of depreciation and share-based compensation)	(102.9)	(116.8)	(114.4)
Depreciation	(97.5)	(87.4)	(62.8)
Share-based compensation	(20.4)	(27.7)	(37.4)
Management fee	(159.0)	(109.1)	(78.5)
Total fees and allocations, net	(379.8)	(341.0)	(293.1)
Included in operating income	(399.7)	(363.6)	(312.3)
Interest expense	(629.2)	(564.7)	(600.1)
Interest income	—	1.8	9.2
Included in net loss	€(1,028.9)	€ (926.5)	€ (903.2)
Property and equipment transfers, net:			
Net book value transferred	€ (597.3)	€ (653.1)	€ (474.6)
Net cash received	€ 316.4	€ 354.6	€ 305.2

General. Certain Liberty Global subsidiaries charge fees and allocate costs and expenses to the UPC Holding Group. Depending on the nature of these related-party transactions, the amount of the charges or allocations may be based on (i) our estimated share of the underlying costs, (ii) our estimated share of the underlying costs plus a mark-up or (iii) commercially-negotiated rates. The methodology Liberty Global uses to allocate its central and administrative costs to its borrowing groups impacts the calculation of the "EBITDA" metric specified by our debt agreements (**Covenant EBITDA**). In this regard, the components of related-party fees and allocations that are deducted to arrive at our Covenant EBITDA are based on (a) the amount and nature of costs incurred by the allocating Liberty Global subsidiaries during the period, (b) the allocation methodologies in effect during the period and (c) the size of the overall pool of entities that are charged fees and allocated costs, such that changes in any of these factors would likely result in changes to the amount of related-party fees and allocations that will be deducted to arrive at our Covenant EBITDA in future periods. For example, to the extent that a Liberty Global subsidiary borrowing group was to acquire (sell) an operating entity, and assuming no change in the total costs incurred by the allocating entities, the fees charged and the costs allocated to our company would decrease (increase). Although we believe that the related-party charges and allocations described below are reasonable, no assurance can be given that the related-party costs and expenses reflected in our combined statements of operations are reflective of the costs that we would incur on a standalone basis.

Revenue. Amounts primarily relate to B2B related services and network maintenance services provided to certain affiliates outside of the UPC Holding Group.

Programming and other direct costs of services. Amounts represent certain cash settled charges from other Liberty Global subsidiaries and affiliates to the UPC Holding Group for programming-related services and interconnect services provided to our company by certain of Liberty Global's affiliates.

Other operating expenses. Amounts represent certain cash settled charges between Liberty Global subsidiaries and the UPC Holding Group primarily for network-related services and other items.

SG&A expenses. Amounts represent certain cash settled charges between Liberty Global subsidiaries and the UPC Holding Group, primarily for information technology-related services and software maintenance services.

Allocated share-based compensation expense. Amounts are allocated to our company by Liberty Global subsidiaries and represent share-based compensation expense associated with the Liberty Global share-based incentive awards held by certain employees of our combined entities. Share-based compensation expense is included in SG&A expenses in our condensed combined statements of operations.

Fees and allocations, net. These amounts, which are based on our company's estimated share of the applicable costs (including personnel-related and other costs associated with the services provided) incurred by other Liberty Global subsidiaries, represent the aggregate net effect of charges between our company and various Liberty Global subsidiaries that are outside of our company. These charges generally relate to management, finance, legal, technology and other services that support our company's operations. The categories of our fees and allocations, net, are as follows:

- *Operating and SG&A (exclusive of depreciation and share-based compensation).* The amounts included in this category, which are generally loan settled, represent our estimated share of certain centralized technology, management, marketing, finance and other operating and SG&A expenses of other Liberty Global subsidiaries, 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 other Liberty Global subsidiaries, without a mark-up. Amounts in this category are generally deducted to arrive at our Covenant EBITDA.

- *Depreciation.* The amounts included in this category, which are generally loan settled, represent our estimated share of depreciation of assets not owned by our company. The amounts allocated represent our estimated share of the actual costs incurred by other Liberty Global subsidiaries, without a mark-up.

- *Share-based compensation.* The amounts included in this category, which are generally loan settled, represent our estimated share of share-based compensation associated with Liberty Global employees who are not employees of our company. The amounts allocated represent our estimated share of the actual costs incurred by other Liberty Global subsidiaries, without a mark-up.

- *Management fee.* The amounts included in this category, which are generally loan settled, represent our estimated allocable share of (i) operating and SG&A expenses related to stewardship services provided by certain Liberty Global subsidiaries and (ii) the mark-up, if any, applicable to each category of the related-party fees and allocations charged to our company.

Liberty Global charges technology-based fees to our company using a royalty-based method. For 2017, 2016 and 2015, our proportional share of the technology-based costs of €204.0 million, €201.7 million and €178.9 million, respectively, was €5.7 million, €14.0 million and €33.3 million, respectively, more than the actual amount charged under the royalty-based method. Accordingly, these excess amounts have been reflected as deemed contributions of technology-related services in our combined statements of deficit. In addition, we recorded an adjustment during the second quarter of 2016 to reduce the amount charged during 2015 under the royalty-based method. This adjustment resulted in (i) a €17.6 million reduction to the management fee category of fees and allocations and (ii) a €13.3 million decrease that is reflected as a deemed contribution of technology-related services in our combined statement of deficit. The fees charged under the royalty-based method are expected to escalate in future periods. Any excess of these charges over our estimated proportionate share of the underlying technology-based costs will be classified as management fees and added back to arrive at Covenant EBITDA.

Interest expense. Amounts primarily include interest accrued on the Shareholder Loan (as defined and described below). Interest expense is accrued and included in other long-term liabilities during the year, and then added to the Shareholder Loan balance at the end of the year.

Property and equipment transfers, net. These amounts, which are generally cash settled, represent the net carrying values and net cash received related to (i) customer premises equipment that is centrally procured by an entity that is a part of the UPC Holding Group and subsequently transferred to other Liberty Global subsidiaries outside of the UPC Holding Group and (ii) used customer premises and network-related equipment acquired from or transferred to other Liberty Global subsidiaries, including LG B.V. During all periods presented, the carrying values of the equipment transferred out of the UPC Holding Group exceed the carrying values of the equipment transferred into the UPC Holding Group. The net cash received in connection with these transfers is reflected as a reduction to capital expenditures within our combined statements of cash flows. Certain of these transfers relate to third-party purchases of property and equipment initially made by our company under vendor financing arrangements and, accordingly, these purchases are not reported as capital expenditures.

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

	December 31,	
	2017	2016
	in millions	
Assets:		
Current receivables (a)	€ 133.7	€ 114.3
Long-term receivables (b)	€ 5.7	€ 421.2
Liabilities:		
Accounts payable	€ 141.0	€ 107.5
Accrued liabilities	159.7	168.0
Shareholder Loan (c)	6,700.5	5,969.6
UPC Equipment Note (d)	—	191.8
Other long-term liabilities (e)	—	18.3
Total	€ 7,001.2	€ 6,455.2

(a) Primarily represents (i) €44.9 million and €12.1 million, respectively, of receivables from LG B.V. and (ii) €38.9 million and €78.3 million, respectively, of receivables due from other Liberty Global subsidiaries related to centrally-procured property and equipment purchased by our company on behalf of these other Liberty Global subsidiaries. These receivables are non-interest bearing and may be cash or loan settled.

(b) Amounts include (i) €5.6 million and €359.1 million, respectively, of long-term receivables from LG B.V., including VAT paid on behalf of a related-party of €152.0 million at December 31, 2016, which was subsequently settled against the Shareholder Loan, as defined and described below, during the first quarter of 2017, and (ii) nil and €61.2 million (including accrued interest), respectively, related to a note receivable (the **Unitymedia Receivable**) from Unitymedia Hessen GmbH & Co. KG (a subsidiary of Liberty Global) to Unitymedia International GmbH (**UMI**), a subsidiary of Liberty Global that prior to January 1, 2017 was part of the UPC Holding Group (as further described in (d) below). During the first quarter of 2015 and in connection with the UPC Transfers, (a) €881.5 million of the outstanding principal under a receivable due from a subsidiary of Ziggo Services (the **Ziggo Services Receivable**) was settled against loans we owed to certain subsidiaries of Ziggo Services and (b) the €634.3 million then-outstanding balance of the UPC Ireland Note Receivable (as defined in (c) below) was transferred to another Liberty Global subsidiary in exchange for a non-cash reduction of the Shareholder Loan (as defined in (c) below). In addition, (1) the remaining outstanding principal and interest of €120.8 million under the Ziggo Services Receivable, (2) a receivable from Liberty Global Operations and (3) a €4.1 million related-party receivable due from Liberty Global Services II were converted to equity during the first quarter of 2015, and the €230.9 million aggregate amount of these related-party receivables is reflected as a non-cash distribution in our combined statement of deficit.

(c) UPC Holding has an unsecured shareholder loan (the **Shareholder Loan**) with Liberty Global Europe Financing B.V. (**LGE Financing**), which, as amended, matures in 2030 and is subordinated in right of payment to the prior payment in full of the UPC Holding Senior Notes in the event of (i) a total or partial liquidation, dissolution or winding up of UPC Holding, (ii) a bankruptcy, reorganization, insolvency, receivership or similar proceeding relating to UPC Holding or its property, (iii) an assignment for the benefit of creditors or (iv) any marshaling of UPC Holding's assets or liabilities. The interest rate on the Shareholder Loan is a fixed rate of 9.79% and accrued interest is included in other long-term liabilities until it is transferred to the loan balance at the end of each year. The net increase in the Shareholder Loan balance during 2017 includes (a) cash advances of €3,293.7 million, (b) cash payments of €2,793.0 million, (c) additions of €629.2 million in non-cash accrued interest, (d) an increase of €210.1 million related to the transfer of the UPC Equipment Note (as defined in (d) below) to the Shareholder Loan, (e) a decrease of €135.5 million related to the non-cash conversion of related-party loans payable and related accrued interest to equity in connection with the Slovakia Transaction and (f) a €473.6 million non-cash decrease related to the settlement of certain related-party amounts, including the settlement of a €152.0 million long-term receivable that arose when we paid VAT on behalf of a related party. The net increase in the Shareholder Loan balance during 2016 includes (1) cash advances of €3,423.8 million, (2) cash payments of €3,349.6 million, (3) additions of €546.5 million in non-cash accrued interest and (4) a €296.6 million non-cash decrease related to the settlement of related-party charges and allocations. The net decrease in the Shareholder Loan balance during 2015 includes (I) a net €5,901.8 million non-cash decrease related to the UPC Transfers, including (A) a decrease of €5,371.8 million related to the non-cash consideration received for the Ziggo Services Transfer, (B) a decrease of €1,087.7 million related to the non-cash consideration received for the UPC Ireland Transfer, (C) a decrease of €634.3 million in exchange for the transfer of our right to receive such amount from UPC Ireland pursuant to a promissory note to another Liberty Global subsidiary (the **UPC Ireland Note Receivable**) in exchange for a non-cash reduction of the Shareholder Loan and (D) an increase of €1,192.0 million related to the non-cash transfer of an amount payable to another Liberty Global subsidiary into the Shareholder Loan, (II) cash advances of €8,123.9 million, (III) cash payments of €6,788.9 million (€1,363.2 million of which was capitalized interest), (IV) additions of €568.7 million in non-cash accrued interest, (V) a decrease of €453.4 million related to the non-cash settlement of a related-party receivable, (VI) a €172.5 million non-cash increase representing the then fair value of certain derivative instruments that were novated from us to another subsidiary of Liberty Global and (VII) a €171.8 million non-cash increase related to the settlement of related-party charges and allocations. The transferred payable was established through the receipt of cash that was subsequently applied to repay a portion of our third-party debt in connection with the Ziggo Services Transfer. During 2017, 2016 and 2015, nil, nil and €1,363.2 million of our Shareholder Loan repayments represented payments of interest, respectively.

(d) Represents borrowings under a loan agreement (the **UPC Equipment Note**) between a subsidiary of Liberty Global and UPC Broadband Holding, the successor by merger of UPC Holding and UPC Equipment B.V. (**UPC Equipment**). UPC Equipment and its immediate parent entity (together, the **UPC Leasing Entities**), and UMI were formed for the purpose of acquiring and legally owning certain customer premises equipment assets to be leased to certain of our other combined entities. Prior to January 1, 2017, the leasing transactions between UMI the UPC Leasing Entities and certain of our other combined entities created a variable interest in UMI for which we were the primary beneficiary and, accordingly, UMI was included as part of the UPC Holding Group. Effective January 1, 2017, UMI no longer engages in leasing transactions with the UPC Holding Group. As such, UMI is no longer included as part of the UPC Holding Group. During 2017, the UPC Equipment Note was transferred to the Shareholder Loan. The increase in the aggregate balance of the UPC Equipment Note during 2016 includes (i) the transfer of €14.9 million in non-cash accrued interest to the loan balance, (ii) cash payments of €3.1 million and (iii) cash advances of €0.1 million. The increase in the aggregate balance of the UPC Equipment Note during 2015 includes (a) cash advances of €184.7 million, (b) cash payments of €89.1 million and (c) the transfer of €5.7 million in non-cash accrued interest to the loan balance.

(e) Primarily includes accrued interest on the UPC Equipment Note. Accrued interest on the Shareholder Loan is included in other long-term liabilities until it is transferred to the loan balance at the end of each year.

During the first quarter of 2015 and in connection with the UPC Transfers, (i) the €953.4 million then-outstanding balance of certain related-party debt that we owed to certain subsidiaries of Ziggo Services was converted to equity and is reflected as a non-cash contribution in our combined statement of deficit and (ii) the €881.5 million then-outstanding balance of certain related-party debt that we owed to a subsidiary of Ziggo Services was settled against a portion of the Ziggo Services Receivable, as described above. In addition, in February 2015, we rolled €689.2 million of our commitments under UPC Facility AG of the UPC Broadband Holding Bank Facility to a subsidiary of Ziggo Services in connection with the Ziggo Services Transfer. This transaction is reflected as a non-cash contribution in our combined statement of deficit.

During 2017, 2016 and 2015, we recorded aggregate capital charges of €7.2 million, €8.1 million and €10.1 million, respectively, in our combined statements of deficit in connection with the exercise of Liberty Global share appreciation rights and the vesting of Liberty Global restricted share awards and performance-based restricted share units held by employees of our combined entities. We and Liberty Global have agreed that these capital charges will be based on the fair value of the underlying Liberty Global shares associated with share-based incentive awards that vest or are exercised during the period, subject to any reduction that is necessary to ensure that the capital charge does not exceed the amount of share-based compensation expense recorded by our company with respect to Liberty Global share-based incentive awards.

LG B.V. contributes property and equipment to our company, which it acquires on our behalf pursuant to certain vendor financing and capital lease arrangements. During 2017, 2016 and 2015, LG B.V.'s carrying value in such contributed property and equipment of €14.6 million, €17.3 million and €16.0 million, respectively, have been reflected as decreases to our parent entities' deficit in our combined statements of deficit.

(13) Defined Benefit Plans

Certain of our combined entities maintain various funded and unfunded defined benefit plans for their employees. The table below provides summary information on our defined benefit plans:

	Year ended December 31,		
	2017	2016	2015
		in millions	
Projected benefit obligation	€ 289.5	€ 308.7	€ 301.6
Fair value of plan assets (a)	€ 283.4	€ 274.1	€ 251.3
Net liability	€ 6.0	€ 34.6	€ 50.3
Net periodic pension cost (b)	€ 3.6	€ 8.0	€ 8.2

(a) The fair value of plan assets is based on Level 1 inputs of the fair value hierarchy (as further described in note 7). Our plan assets comprise investments in debt securities, equity securities, real estate contracts and certain other assets.

(b) The 2015 amount excludes aggregate curtailment gains of €4.6 million, which are included in impairment, restructuring and other operating items, net, in our combined statement of operations.

Based on December 31, 2017 exchange rates and information available as of that date, the contributions to our defined benefit plans in 2018 are expected to aggregate €11.8 million.

(14) Accumulated Other Comprehensive Earnings

Accumulated other comprehensive earnings included in our combined balance sheets and statements of deficit reflect the aggregate impact of foreign currency translation adjustments and pension-related adjustments and other. The changes in the components of accumulated other comprehensive earnings, net of taxes, are summarized below. Except as noted below, we are not required to provide income taxes on amounts recorded in other comprehensive earnings for the periods presented.

	Parent entities				
	Foreign currency translation adjustments	Pension related adjustments (a)	Accumulated other comprehensive earnings	Non-controlling interests	Total combined accumulated other comprehensive earnings
			in millions		
Balance at January 1, 2015	€ 537.7	€ 6.1	€ 543.8	€ 0.8	€ 544.6
Other comprehensive earnings	222.6	(31.4)	191.2	—	191.2
Balance at December 31, 2015	760.3	(25.3)	735.0	0.8	735.8
Other comprehensive earnings	19.6	8.9	28.5	—	28.5
Balance at December 31, 2016	779.9	(16.4)	763.5	0.8	764.3
Other comprehensive loss	(55.1)	6.6	(48.5)	—	(48.5)
Balance at December 31, 2017	€ 724.8	€ (9.8)	€ 715.0	€ 0.8	€ 715.8

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(a) The pension related adjustments included in other comprehensive earnings are net of income tax benefit (expense) of (€1.6 million), (€2.2 million) and €7.8 million for the years ended December 31, 2017, 2016 and 2015, respectively.

(15) 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 programming contracts, purchases of customer premises and other equipment and services, network and connectivity commitments, non-cancellable operating leases and other items. The following table sets forth the euro equivalents of such commitments as of December 31, 2017:

	Payments due during:						
	2018	2019	2020	2021	2022	Thereafter	Total
				in millions			
Programming commitments	€ 128.2	€ 112.3	€ 110.9	€ 61.2	€ 27.3	€ —	€ 439.9
Purchase commitments	198.1	44.6	42.5	12.7	12.3	42.7	352.9
Network and connectivity commitments	92.9	42.6	28.3	11.6	7.0	19.7	202.1
Operating leases	29.2	24.4	20.1	16.3	13.1	64.6	167.7
Other commitments	3.0	0.7	0.3	—	—	—	4.0
Total (a)	€ 451.4	€ 224.6	€ 202.1	€ 101.8	€ 59.7	€ 127.0	€ 1,166.6

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(a) The commitments included in this table do not reflect any liabilities that are included in our December 31, 2017 combined balance sheet.

Programming commitments consist of obligations associated with certain of our 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 €329.4 million, €295.5 million and €264.8 million during 2017, 2016 and 2015, respectively.

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 information technology and maintenance services, including €2.3 million associated with related-party purchase obligations.

Network and connectivity commitments include commitments associated with (i) network maintenance commitments, (ii) fiber leasing agreements, (iii) satellite carriage services provided to our company, (iv) commitments associated with our mobile virtual network operator (**MVNO**) agreements and (v) certain operating costs associated with our leased networks. The amounts reflected in the above table with respect to certain of our MVNO 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.

Commitments arising from acquisition agreements are not reflected in the above table. For information regarding our commitments under an acquisition agreement, see note 4.

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 2017, 2016 and 2015, see note 6. For information regarding our defined benefit plans, see note 13.

We also have commitments pursuant to agreements with, and obligations imposed by, franchise authorities and municipalities, which may include obligations in certain markets to move aerial cable to underground ducts or to upgrade, rebuild or extend portions of our broadband communication systems. Such amounts are not included in the above table because they are not fixed or determinable.

Rental expense under non-cancellable operating lease arrangements amounted to €74.4 million, €67.3 million and €60.9 million during 2017, 2016 and 2015, respectively. It is expected that in the normal course of business, operating leases that expire generally will be renewed or replaced by similar leases.

We have established various defined contribution benefit plans for our employees. The aggregate expense of our matching contributions under the various defined contribution employee benefit plans was €1.0 million during each of 2017, 2016 and 2015.

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.

Legal and Regulatory Proceedings and Other Contingencies

Hungary VAT Matter. In February 2016, our DTH operations in Luxembourg received a second instance decision from the Hungarian tax authorities as a result of an audit with respect to VAT payments that the Hungarian tax authorities conducted for the years 2010 through 2012. The Hungarian tax authorities assessed our DTH operations with an obligation to pay VAT for the years audited of HUF 5,413.2 million (€17.4 million), excluding interest and penalties, which could be significant. We believe that our DTH operations have operated in compliance with all applicable rules, regulations and interpretations thereof, including a binding tax ruling that we received from the Hungarian government in 2010. In October 2016, a Budapest court disagreed with the tax authorities and dismissed the assessment. On February 2, 2017, the Hungarian tax authorities appealed the Budapest court decision to the Hungarian Supreme Court, and on November 9, 2017, the Hungarian Supreme Court affirmed the decision of the Budapest court. We consider this matter to be closed.

Other Regulatory Issues. Video distribution, broadband internet, fixed-line telephony, mobile and content businesses are regulated in each of the countries in which we or our affiliates operate. The scope of regulation varies from country to country, although in some significant respects regulation in European markets is harmonized under the regulatory structure of the E.U. 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 VAT and wage, property, withholding and other tax issues and (iii) disputes over interconnection, programming, copyright and channel carriage 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.

(16) Segment Reporting

We generally identify our reportable segments as those operating entities that represent 10% or more of our revenue, Segment OCF (as defined below) or total assets. In certain cases, we may elect to include an operating segment in our segment disclosure that does not meet the above-described criteria for a reportable segment. We evaluate performance and make decisions about allocating resources to our operating segments based on financial measures such as revenue and Segment OCF. In addition, we review non-financial measures such as subscriber growth, as appropriate.

Segment OCF is the primary measure used by our chief operating decision maker to evaluate segment operating performance. Segment OCF is also a key factor that is used by our internal decision makers to (i) determine how to allocate resources to segments and (ii) evaluate the effectiveness of our management for purposes of annual and other incentive compensation plans. As we use the term, "**Segment OCF**" is defined as operating income before depreciation and amortization, share-based compensation, related-party fees and allocations, provisions and provision releases related to significant litigation and impairment, restructuring and other operating items. Other operating items include (a) gains and losses on the disposition of long-lived assets, (b) third-party costs directly associated with successful and unsuccessful acquisitions and dispositions, including legal, advisory and due diligence fees, as applicable, and (c) other acquisition-related items, such as gains and losses on the settlement of contingent consideration. Our internal decision makers believe Segment OCF is a meaningful measure because it represents a transparent view of our recurring operating performance that is unaffected by our capital structure and allows management to (1) readily view operating trends, (2) perform analytical comparisons and benchmarking between segments and (3) identify strategies to improve operating performance in the different countries in which we operate. A reconciliation of total Segment OCF to our loss before income taxes is presented below.

As of December 31, 2017, our reportable segments are as follows:

- Switzerland/Austria
- Central and Eastern Europe

Our reportable segments derive their revenue primarily from broadband communications services, including video, broadband internet and fixed-line telephony services. Each of our reportable segments also provides B2B and mobile services. At December 31, 2017, we provided broadband communications services in seven European countries and DTH services to customers in the Czech Republic, Hungary, Romania and Slovakia through UPC DTH. In addition to UPC DTH, our Central and Eastern Europe segment includes our broadband communications operations in the Czech Republic, Hungary, Poland, Romania and Slovakia.

Performance Measures of Our Reportable Segments

	Year ended December 31,					
	2017		2016		2015	
	Revenue	Segment OCF	Revenue	Segment OCF	Revenue	Segment OCF
	in millions					
Switzerland/Austria	€ 1,564.5	€ 934.6	€ 1,586.4	€ 966.7	€ 1,584.1	€ 937.2
Central and Eastern Europe	1,047.2	455.8	983.4	426.5	960.7	427.1
Other	—	(1.4)	—	(1.7)	—	(1.5)
Total	€ 2,611.7	€ 1,389.0	€ 2,569.8	€ 1,391.5	€ 2,544.8	€ 1,362.8

The following table provides a reconciliation of total Segment OCF to loss before income taxes:

	Year ended December 31,		
	2017	2016	2015
	in millions		
Total Segment OCF	€ 1,389.0	€ 1,391.5	€ 1,362.8
Share-based compensation expense	(10.2)	(17.0)	(12.1)
Related-party fees and allocations, net	(379.8)	(341.0)	(293.1)
Depreciation and amortization	(571.4)	(548.4)	(572.1)
Impairment, restructuring and other operating items, net	(5.2)	(5.3)	(5.0)
Operating income	422.4	479.8	480.5
Interest expense:			
Third-party	(302.4)	(336.3)	(367.6)
Related-party	(629.2)	(564.7)	(600.1)
Interest income	—	2.7	10.6
Realized and unrealized losses on derivative instruments, net	(165.2)	(28.9)	(42.3)
Foreign currency transaction gains (losses), net	289.3	(117.8)	(216.0)
Losses on debt modification and extinguishment, net	(97.0)	(70.3)	(183.9)
Other income, net	3.7	13.5	3.5
Loss before income taxes	€ (478.4)	€ (622.0)	€ (915.3)

Balance Sheet Data of our Reportable Segments

Selected balance sheet data of our reportable segments is set forth below:

	Long-lived assets		Total assets	
	December 31,		December 31,	
	2017	2016	2017	2016
	in millions			
Switzerland/Austria	€ 3,504.1	€ 4,792.1	€ 4,797.2	€ 5,139.0
Central and Eastern Europe	2,315.1	2,145.1	2,403.4	2,219.3
Other	15.4	20.9	695.4	1,252.1
Total	€ 5,834.6	€ 6,958.1	€ 7,896.0	€ 8,610.4

Property and Equipment Additions of our Reportable Segments

The property and equipment additions of our reportable segments (including capital additions financed under vendor financing or capital lease arrangements) are presented below and reconciled to the capital expenditure amounts included in our combined statements of cash flows. For additional information concerning capital additions financed under vendor financing and capital lease arrangements, see note 8.

	Year ended December 31,		
	2017	2016	2015
		in millions	
Switzerland/Austria	€ 324.3	€ 334.6	€ 285.1
Central and Eastern Europe	353.2	299.6	250.7
Total segment property and equipment additions	677.5	634.2	535.8
Other (a)	(5.4)	16.5	(14.5)
Total property and equipment additions	672.1	650.7	521.3
Assets acquired under capital-related vendor financing arrangements	(622.9)	(640.0)	(517.8)
Assets contributed by parent entities	(14.6)	(17.3)	(16.0)
Assets acquired under capital leases	(60.3)	(12.2)	(1.0)
Changes in current liabilities related to capital expenditures (including related-party amounts) (b)	269.9	193.8	153.2
Total capital expenditures	€ 244.2	€ 175.0	€ 139.7

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(a) Primarily relates to inventory build-up of centrally-procured customer premises equipment. This equipment is ultimately transferred to certain of Liberty Global's operating subsidiaries, including entities within the UPC Holding Group. Equipment transferred outside of the UPC Holding Group is reflected as a reduction to the UPC Holding Group's property and equipment additions in the period in which the equipment is transferred. For additional information, see note12.

(b) Includes cash received for property and equipment transfers outside of the UPC Holding Group. For additional information, see note 12.

Revenue by Major Category

Our revenue by major category is set forth below. Effective April 1, 2017, we changed the categories that we present in this table in order to align with our internal reporting. These changes were retroactively reflected in the prior-year periods.

	Year ended December 31,		
	2017	2016	2015
		in millions	
Residential revenue:			
Residential cable revenue (a):			
Subscription revenue (b):			
Video	€ 1,181.4	€ 1,193.7	€ 1,193.9
Broadband internet	708.1	709.3	705.6
Fixed-line telephony	195.6	213.2	231.7
Total subscription revenue	2,085.1	2,116.2	2,131.2
Non-subscription revenue	135.8	118.2	121.3
Total residential cable revenue	2,220.9	2,234.4	2,252.5
Residential mobile revenue (c):			
Subscription revenue (b)	47.3	30.2	12.2
Non-subscription revenue	20.7	20.3	9.9
Total residential mobile revenue	68.0	50.5	22.1
Total residential revenue	2,288.9	2,284.9	2,274.6
B2B revenue (d):			
Subscription revenue	71.9	60.1	48.9
Non-subscription revenue	250.9	224.8	221.3
Total B2B revenue	322.8	284.9	270.2
Total	€ 2,611.7	€ 2,569.8	€ 2,544.8

(a) Residential cable subscription revenue includes amounts received from subscribers for ongoing services. Residential cable non-subscription revenue includes, among other items, channel carriage fees, installation revenue, late fees and revenue from the sale of equipment.

(b) Residential subscription revenue from subscribers who purchase bundled services at a discounted rate is generally allocated proportionally to each service based on the standalone price for each individual service. As a result, changes in the standalone pricing of our cable and mobile products or the composition of bundles can contribute to changes in our product revenue categories from period to period.

(c) Residential mobile subscription revenue includes amounts received from subscribers for ongoing services. Residential mobile non-subscription revenue includes, among other items, interconnect revenue and revenue from sales of mobile handsets and other devices.

(d) B2B subscription revenue represents revenue from services to certain small or home office (**SOHO**) subscribers. SOHO subscribers pay a premium price to receive expanded service levels along with video, broadband internet, fixed-line telephony or mobile services that are the same or similar to the mass marketed products offered to our residential subscribers. B2B non-subscription revenue includes business broadband internet, video, fixed-line telephony, mobile and data services offered to medium to large enterprises and, on a wholesale basis, to other operators.

Geographic Segments

The revenue of our geographic segments is set forth below:

	Year ended December 31,		
	2017	2016	2015
		in millions	
Switzerland	€ 1,214.1	€ 1,244.6	€ 1,252.5
Poland	369.8	353.7	360.0
Austria	350.4	341.8	331.6
Hungary	274.0	250.5	236.4
The Czech Republic	179.3	164.4	160.5
Romania	160.5	153.5	142.4
Slovakia	53.4	53.2	54.1
Other	10.2	8.1	7.3
Total	€ 2,611.7	€ 2,569.8	€ 2,544.8

The long-lived assets of our geographic segments are set forth below:

	December 31,	
	2017	2016
	in millions	
Switzerland	€ 3,504.1	€ 3,846.8
Austria	—	945.3
Poland	855.5	797.2
The Czech Republic	537.9	501.7
Hungary	509.6	492.5
Romania	221.5	205.3
Slovakia	110.5	103.9
Other (a)	95.5	65.4
Total	€ 5,834.6	€ 6,958.1

(a) Includes amounts related to (i) the long-lived assets of UPC DTH and (ii) our inventory of centrally-procured customer premises equipment. This centrally-procured customer premises equipment is ultimately transferred to certain of Liberty Global's operating subsidiaries, including entities within the UPC Holding Group. See note 12.

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 combined financial statements, is intended to assist in providing an understanding of our results of operations and financial condition and is organized as follows:

- *Forward-Looking Statements.* This section provides a description of certain factors that could cause actual results or events to differ materially from anticipated results or events.
- *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, 2017, 2016 and 2015.
- *Liquidity and Capital Resources.* This section provides an analysis of our liquidity, combined 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.

The capitalized terms used below have been defined in the notes to our combined financial statements. In the following text, the terms, "we," "our," "our company" and "us" may refer, as the context requires, to UPC Holding or the UPC Holding Group.

Unless otherwise indicated, convenience translations into euros are calculated, and operational data (including subscriber statistics) are presented, as of December 31, 2017.

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 2018, subscriber growth and retention rates, competitive, regulatory and economic factors, the timing and impacts of proposed transactions, the maturity of our markets, the anticipated impacts of new legislation (or changes to existing rules and regulations), anticipated changes in our revenue, costs or growth rates, our liquidity, credit risks, foreign currency risks, target leverage levels, 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 risks and uncertainties in the following list, and those described herein, as 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 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 television viewing preferences and habits;
- consumer acceptance of our existing service offerings, including our cable television, 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;
- our ability to maintain or increase the number of subscriptions to our cable television, 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 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 our third-party wireless network providers under our MVNO arrangements) 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 any planned network extensions;
- the availability of capital for the acquisition and/or development of telecommunications networks and services;
- problems we may discover post closing with the operations, including the internal controls and financial reporting process, of businesses we acquire;
- the leakage of sensitive customer data;
- 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; and
- events that are outside of our control, such as political unrest in international markets, terrorist attacks, malicious human acts, 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.

Overview

General

We are an international provider of (i) video, broadband internet and fixed-line telephony services in seven European countries and (ii) mobile services in four European countries. We also provide DTH services to customers in the Czech Republic, Hungary, Romania and Slovakia through UPC DTH. In addition, each of our reportable segments also provides B2B services.

Operations

At December 31, 2017, we owned and operated networks that passed 14,051,000 homes and served 13,324,500 revenue generating units (**RGUs**), consisting of 5,993,200 video subscribers, 4,290,200 broadband internet subscribers and 3,041,100 fixed-line telephony subscribers. In addition, at December 31, 2017, we served 271,300 mobile subscribers.

Video services. We provide video services, including various enhanced products that enable our customers to control when they watch their programming. These products range from digital video recorders to multimedia home gateway systems capable of distributing video, voice and data content throughout the home and to multiple devices.

Broadband internet services. We offer multiple tiers of broadband internet service with available maximum download speeds as high as 500 Mbps or more depending on location. We continue to invest in new technologies that allow us to increase the internet speeds we offer to our customers.

Fixed-line telephony services. We offer fixed-line telephony services via either voice-over-internet-protocol or “VoIP” technology or circuit-switched telephony, depending on location.

Mobile services. We offer voice and data mobile services through MVNO networks or our own networks. We offer mobile services as an MVNO over third-party networks in Switzerland, Austria, Hungary and Poland.

B2B services. Our B2B services include voice, broadband internet, data, video, wireless and cloud services.

Strategy and management focus

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 and dispositions. 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 upselling.

Competition and other external factors

We are experiencing significant competition from incumbent telecommunications operators, DTH operators and/or other providers in all of our markets, particularly in Switzerland. The significant competition we are experiencing, together with macroeconomic factors, has adversely impacted our revenue, RGUs and/or average monthly subscription revenue per average cable RGU or mobile subscriber, as applicable (**ARPU**), particularly in Switzerland. For additional information regarding the revenue impact of changes in the RGUs and ARPU of our reportable segments, see *Discussion and Analysis of our Reportable Segments* below.

In addition to competition, our operations are subject to macroeconomic, political and other risks that are outside of our control. For example, on June 23, 2016, the U.K. held a referendum in which U.K. citizens voted in favor of, on an advisory basis, an exit from the E.U. commonly referred to as “**Brexit**.” Brexit is currently scheduled to occur on March 29, 2019. The potential impacts, if any, of the uncertainty relating to Brexit or the resulting terms of Brexit on the free movement of goods, services, people and capital between the U.K. and the E.U., customer behavior, economic conditions, interest rates, currency exchange rates, availability of capital or other matters are unclear. In addition, the value of the British pound sterling relative to the U.S. dollar remains at levels that are significantly below pre-Brexit levels. The effects of Brexit could adversely affect our business, results of operations, financial condition and liquidity.

In addition, high levels of sovereign debt in the U.S. and several countries in which we 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, especially within the eurozone countries given our significant exposure to the euro, could have an adverse impact on, among other matters, our liquidity and cash flows.

Results of Operations

The comparability of our operating results during 2017, 2016 and 2015 is affected by acquisitions. In the following discussion, we quantify the estimated impact of acquisitions (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. In general, we base our estimate of the Acquisition Impact on an acquired entity's operating results during the first three to twelve months following the acquisition date, as adjusted to remove integration costs and any other material unusual or nonoperational items, such that changes from those operating results in subsequent periods are considered to be organic changes. Accordingly, in the following discussion, (i) organic variances attributed to an acquired entity during the first 12 months following the acquisition date represent differences between the Acquisition Impact and the actual results and (ii) the calculation of our organic change percentages includes the organic activity of an acquired entity relative to the Acquisition Impact of such entity.

Changes in foreign currency exchange rates have a significant impact on our reported operating results as most of our operating segments have functional currencies other than the euro. Our primary exposure to FX risk during the three months ended December 31, 2017 was to the Swiss franc and other local currencies in Europe as 84.0% of our euro revenue during the period was derived from our combined entities whose functional currencies are other than the euro. The portions of the changes in the various components of our results of operations that are attributable to changes in FX are highlighted under *Discussion and Analysis of our Reportable Segments* and *Discussion and Analysis of our Combined Operating Results* below.

Discussion and Analysis of our Reportable Segments

General

Our reportable segments derive their revenue primarily from residential and B2B communications services, including video, broadband internet, fixed-line telephony and mobile services. For detailed information regarding the composition of our reportable segments and how we define and categorize our revenue components, see note 16 to our combined financial statements.

The tables presented below in this section provide the details of the revenue and Segment OCF of our combined reportable segments for (i) 2017, as compared to 2016, and (ii) 2016, as compared to 2015. These tables present (a) the amounts reported for the current and comparative periods, (b) the reported euro and percentage change from period to period and (c) the organic percentage change from period to period. The comparisons that exclude FX assume that exchange rates remained constant at the prior-year rate during the comparative periods that are included in each table. We also provide a table showing the Segment OCF margins of our combined reportable segments for 2017, 2016 and 2015 at the end of this section.

All 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 Segment OCF and Segment OCF margins 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 MVNO or 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 experience prospective changes and, in very limited cases, we could experience retroactive changes in our interconnect revenue and/or costs. The ultimate impact of any such changes in termination rates on our Segment OCF would be dependent on the call or text messaging patterns that are subject to the changed termination rates.

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 combined reportable segments (**non-functional currency expenses**). Any cost increases that we are not able to pass on to our subscribers through rate increases would result in increased pressure on our operating margins.

Revenue of our Reportable Segments

General. While not specifically discussed in the below explanations of the changes in the revenue of our reportable segments, 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 outstanding during the period and (ii) changes in ARPU. Changes in ARPU can be attributable to (a) changes in prices, (b) changes in bundling or promotional discounts, (c) changes in the tier of services selected, (d) variances in subscriber usage patterns and (e) the overall mix of cable 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.

Revenue — 2017 compared to 2016

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2017	2016	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 1,564.5	€ 1,586.4	€ (21.9)	(1.4)	(0.3)
Central and Eastern Europe	1,047.2	983.4	63.8	6.5	5.2
Total	€ 2,611.7	€ 2,569.8	€ 41.9	1.6	1.8

Switzerland/Austria. The details of the decrease in Switzerland/Austria's revenue during 2017, as compared to 2016, are set forth below:

	Subscription revenue	Non-subscription revenue	Total
	in millions		
Increase (decrease) in residential cable subscription revenue due to change in:			
Average number of RGUs (a)	€ (4.1)	€ —	€ (4.1)
ARPU (b)	(39.3)	—	(39.3)
Increase in residential cable non-subscription revenue (c)	—	13.5	13.5
Total increase (decrease) in residential cable revenue	(43.4)	13.5	(29.9)
Increase in residential mobile revenue (d)	15.2	0.3	15.5
Increase in B2B revenue (e)	4.0	5.9	9.9
Total organic increase (decrease)	(24.2)	19.7	(4.5)
Impact of acquisitions	1.4	4.3	5.7
Impact of FX	(18.1)	(5.0)	(23.1)
Total	€ (40.9)	€ 19.0	€ (21.9)

(a) The decrease in residential cable subscription revenue related to a change in the average number of RGU**s** is attributable to the net effect of (i) a decline in the average number of video RGUs and (ii) increases in the average number of fixed-line telephony and broadband internet RGUs.

(b) The decrease in residential cable subscription revenue related to a change in ARPU is attributable to (i) a decrease due to lower ARPU from fixed-line telephony, broadband internet and video services and (ii) an adverse change in RGU mix.

(c) The increase in residential cable non-subscription revenue is primarily attributable to the net effect of (i) a €17.4 million increase associated with distribution revenue that we earned following the September 2017 launch of our Swiss sports channels, (ii) a decrease in installation revenue in Switzerland and (iii) a decrease in equipment sales in Switzerland. In addition, the increase in residential cable non-subscription revenue includes a €5.9 million favorable impact of the release of unclaimed customer credits in Switzerland during the first half of 2017.

(d) The increase in residential mobile subscription revenue is due to the net impact of (i) an increase in the average number of mobile subscribers and (ii) lower ARPU from mobile services.

(e) The increase in B2B subscription revenue is primarily attributable to an increase in the average number of broadband internet SOHO RGUs. The increase in B2B non-subscription revenue is primarily due to (i) higher revenue from data services, primarily in Switzerland, (ii) higher revenue from construction services provided to our partner networks in Switzerland and (iii) an increase in interconnect revenue in Switzerland.

Central and Eastern Europe. The details of the increase in Central and Eastern Europe's revenue during 2017, as compared to 2016, are set forth below:

	Subscription revenue	Non-subscription revenue	Total
		in millions	
Increase (decrease) in residential cable subscription revenue due to change in:			
Average number of RGUs (a)	€ 26.8	€ —	€ 26.8
ARPU (b)	(9.0)	—	(9.0)
Increase in residential cable non-subscription revenue (c)	—	5.8	5.8
Total increase in residential cable revenue	17.8	5.8	23.6
Increase in residential mobile revenue (d)	2.6	0.4	3.0
Increase in B2B revenue (e)	7.4	17.8	25.2
Total organic increase	27.8	24.0	51.8
Impact of FX	10.7	1.3	12.0
Total	€ 38.5	€ 25.3	€ 63.8

(a) The increase in residential cable subscription revenue related to a change in the average number of RGUs is attributable to (i) an increase in the average number of broadband internet RGUs, primarily due to increases in Hungary, the Czech Republic, Romania and Poland, (ii) an increase in the average number of video RGUs, primarily due to increases in the Czech Republic, Hungary and Romania that were only partially offset by decreases in Slovakia and UPC DTH and (iii) an increase in the average number of fixed-line telephony RGUs, primarily due to increases in Hungary and Romania.

(b) The decrease in residential cable subscription revenue related to a change in ARPU is primarily attributable to (i) the net effect of (a) higher ARPU from video services, primarily due to increases in Poland, Hungary and UPC DTH that were only partially offset by a decrease in the Czech Republic, (b) lower ARPU from fixed-line telephony services, primarily driven by decreases in Poland, Romania and Hungary and (c) lower ARPU from broadband internet services, as decreases in Poland and Hungary were only partially offset by an increase in Romania, and (ii) an improvement in RGU mix.

(c) The increase in residential cable non-subscription revenue is primarily attributable to increases in Hungary, Poland and UPC DTH.

(d) The increase in residential mobile subscription revenue is primarily due to an increase in the average number of mobile subscribers in Hungary.

(e) The increase in B2B subscription revenue is primarily attributable to (i) an increase in the average number of broadband internet SOHO RGUs, most notably in Hungary and Poland, and (ii) an increase in the average number of video SOHO RGUs. The increase in B2B non-subscription revenue is primarily due to (a) higher revenue from fixed-line telephony services, primarily in the Czech Republic, (b) higher interconnect revenue, primarily due to higher volumes in Poland and Hungary, and (c) higher revenue from data services, primarily in Poland and Romania.

Revenue — 2016 compared to 2015

	Year ended December 31,		Increase		Organic increase
	2016	2015	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 1,586.4	€ 1,584.1	€ 2.3	0.1	1.7
Central and Eastern Europe	983.4	960.7	22.7	2.4	3.8
Total	€ 2,569.8	€ 2,544.8	€ 25.0	1.0	2.5

Switzerland/Austria. The details of the increase in Switzerland/Austria's revenue during 2016, as compared to 2015, are set forth below:

	Subscription revenue	Non-subscription revenue	Total
		in millions	
Increase (decrease) in residential cable subscription revenue due to change in:			
Average number of RGUs (a)	€ (9.4)	€ —	€ (9.4)
ARPU (b)	9.8	—	9.8
Decrease in residential cable non-subscription revenue (c)	—	(4.7)	(4.7)
Total increase (decrease) in residential cable revenue	0.4	(4.7)	(4.3)
Increase in residential mobile revenue (d)	15.0	9.9	24.9
Increase in B2B revenue (e)	4.3	1.5	5.8
Total organic increase	19.7	6.7	26.4
Impact of acquisitions	—	1.5	1.5
Impact of FX	(20.8)	(4.8)	(25.6)
Total	€ (1.1)	€ 3.4	€ 2.3

(a) The decrease in residential cable subscription revenue related to a change in the average number of RGUs is primarily attributable to a decline in the average number of video RGUs that was mostly offset by increases in the average number of broadband internet and fixed-line telephony RGUs.

(b) The increase in residential cable subscription revenue related to a change in ARPU is attributable to the net effect of (i) a net increase due to (a) higher ARPU from video and broadband internet services and (b) lower ARPU from fixed-line telephony services and (ii) an adverse change in RGU mix.

(c) The decrease in residential cable non-subscription revenue is primarily attributable to (i) lower revenue from late fees and (ii) a decrease in revenue from services provided through third-party networks.

(d) The increase in residential mobile subscription revenue is due to the net effect of (i) an increase in the average number of mobile subscribers and (ii) lower ARPU. The increase in residential mobile non-subscription revenue is primarily due to (a) an increase in revenue from mobile handset sales and (b) an increase in mobile interconnect revenue.

(e) The increase in B2B subscription revenue is primarily attributable to an increase in the average number of broadband internet SOHO RGUs.

Central and Eastern Europe. The details of the increase in Central and Eastern Europe's revenue during 2016, as compared to 2015, are set forth below:

	Subscription revenue	Non-subscription revenue	Total
		in millions	
Increase (decrease) in residential cable subscription revenue due to change in:			
Average number of RGUs (a)	€ 48.3	€ —	€ 48.3
ARPU (b)	(31.0)	—	(31.0)
Increase in residential cable non-subscription revenue	—	2.9	2.9
Total increase in residential cable revenue	17.3	2.9	20.2
Increase in residential mobile revenue	3.5	0.8	4.3
Increase in B2B revenue (c)	7.8	3.9	11.7
Total organic increase	28.6	7.6	36.2
Impact of acquisitions	2.8	0.3	3.1
Impact of FX	(16.2)	(0.4)	(16.6)
Total	€ 15.2	€ 7.5	€ 22.7

(a) The increase in residential cable subscription revenue related to a change in the average number of RGUs is primarily attributable to (i) an increase in the average number of broadband internet RGUs, primarily due to increases in Poland, Hungary and Romania, (ii) an increase in the average number of video RGUs, primarily due to increases in Poland, UPC DTH, Romania, the Czech Republic and Hungary, and (iii) an increase in the average number of fixed-line telephony RGUs, primarily due to increases in Poland, Hungary and Romania.

(b) The decrease in residential cable subscription revenue related to a change in ARPU is attributable to (i) a net decrease due to (a) lower ARPU from broadband internet services, primarily due to a decrease in Poland that was only partially offset by an increase in Romania, (b) lower ARPU from fixed-line telephony services, primarily due to decreases in Poland, Romania and Hungary, and (c) higher ARPU from video services, as increases in Poland, Hungary, UPC DTH and Romania were only partially offset by decreases in the Czech Republic and Slovakia, and (ii) an adverse change in RGU mix.

(c) The increase in B2B subscription revenue is primarily attributable to an increase in broadband internet SOHO RGUs, mainly in Poland and the Czech Republic.

Programming and Other Direct Costs of Services of our Reportable Segments

Programming and other direct costs of services — 2017 compared to 2016

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, are subject to 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 and (iii) growth in the number of our enhanced video subscribers.

	Year ended December 31,		Increase		Organic increase
	2017	2016	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 242.0	€ 221.6	€ 20.4	9.2	11.1
Central and Eastern Europe	264.6	230.1	34.5	15.0	13.8
Total	€ 506.6	€ 451.7	€ 54.9	12.2	12.5

Our programming and other direct costs of services increased €54.9 million or 12.2% during 2017, as compared to 2016, This increase includes an increase of €0.5 million attributable to the impact of acquisitions. On an organic basis, our programming and other direct costs of services increased €56.4 million or 12.5%. This increase includes the following factors:

- An increase in programming and copyright costs of €35.7 million or 12.1%, primarily due to increases in Switzerland/Austria, Hungary and, to a lesser extent, Romania, Poland and Slovakia. These increases are primarily due to (i) higher costs for certain premium and/or basic content, including higher costs for sports rights in Switzerland, and (ii) growth in the number of enhanced video subscribers, primarily in Hungary, Romania and Poland. The cost for sports rights increased €26.1 million in Switzerland due to the acquisition of the rights to carry live sporting events in connection with the September 2017 launch of our Swiss sports channels. Approximately half of these programming costs and the operating and capital costs associated with the production of the related Swiss sports channels are recovered from the revenue earned for the distribution of these sports channels to other cable operators;

- An increase in interconnect and access costs of €19.4 million or 21.3%, primarily due to (i) higher fixed-line telephony call volumes, as increases in the Czech Republic and Poland were only partially offset by a decrease in Switzerland/Austria, and (ii) higher MVNO costs, primarily in Switzerland/Austria and Hungary; and

- A decrease in mobile handset and other device costs of €2.3 million or 14.1%, primarily due to lower mobile handset and other device sales volume in Switzerland/Austria.

Programming and other direct costs of services — 2016 compared to 2015

	Year ended December 31,		Increase		Organic increase
	2016	2015	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 221.6	€ 213.5	€ 8.1	3.8	5.4
Central and Eastern Europe	230.1	211.0	19.1	9.1	10.5
Total	€ 451.7	€ 424.5	€ 27.2	6.4	8.0

Our programming and other direct costs of services increased €27.2 million or 6.4% during 2016, as compared to 2015. This increase includes an increase of €1.2 million attributable to the impact of acquisitions. On an organic basis, our programming and other direct costs of services increased €33.9 million or 8.0%. This increase includes the following factors:

- An increase in interconnect and access costs of €17.9 million or 24.0%, primarily due to (i) higher mobile usage in Switzerland/Austria and (ii) an increase of €3.5 million related to the settlement of an operational contingency during the third quarter of 2015;

- An increase in mobile handset and other device costs of €7.3 million, primarily due to higher mobile handset sales volume, attributable to increases in the number of handsets sold in Switzerland/Austria; and

- An increase in programming and copyright costs of €6.2 million or 2.1%, primarily due to (i) higher costs for certain premium and/or basic content, including costs of €3.6 million associated with a new Europe-wide programming contract that was entered into in June 2016 with retroactive impact to January 1, 2016, (ii) growth in the number of enhanced video subscribers, primarily in Hungary, Romania and Poland and (iii) an increase of €1.9 million resulting from adjustments related to the settlement or reassessment of operational contingencies that was recorded in Switzerland/Austria in the first quarter of 2015.

Other Operating Expenses of our Reportable Segments

Other Operating Expenses — 2017 compared to 2016

Other operating expenses include network operations, customer operations, customer care and other costs related to our operations.

	Year ended December 31,		Decrease		Organic decrease
	2017	**2016**	**€**	**%**	**%**
	in millions, except percentages				
Switzerland/Austria	€ 196.6	€ 203.2	€ (6.6)	(3.2)	(2.9)
Central and Eastern Europe	170.5	176.2	(5.7)	(3.2)	(3.8)
Other	—	0.1	(0.1)	N.M.	N.M
Total	€ 367.1	€ 379.5	€ (12.4)	(3.3)	(3.4)

N.M. — Not Meaningful.

Our other operating expenses decreased €12.4 million or 3.3% during 2017 as compared to 2016. This decrease includes an increase of €1.7 million attributable to the impact of acquisitions. On an organic basis, our other operating expenses decreased €12.8 million or 3.4%. This decrease includes the following factors:

- A decrease in outsourced labor and professional fees of €2.9 million or 11.3%, primarily due to lower consulting costs in Switzerland/Austria, Poland and Hungary;

- A decrease in vehicle expenses of €2.1 million or 54.6%, a portion of which is due to the impact of the conversion of certain operating leases on company vehicles to capital leases, primarily in Switzerland/Austria, Poland and Romania;

- A decrease in personnel costs of €2.0 million or 1.7%, primarily due to the net effect of (i) lower staffing levels in Poland, the Czech Republic and, to a lesser extent, Switzerland/Austria, Romania and Slovakia and (ii) increased costs in Switzerland/Austria resulting from lower capitalized labor costs;

- A decrease in bad debt and collection expenses of €1.5 million or 8.0%, primarily due to decreases in the Czech Republic, Switzerland/Austria and Slovakia that were only partially offset by an increase in Hungary; and

- A decrease in network-related expenses of €0.7 million or 0.5%, largely due to the net effect of (i) lower expenses resulting from the capitalization of UPC DTH's satellite capacity costs following the April 2017 renegotiation of the underlying agreement, (ii) higher duct and pole rental fees, primarily in Romania, (iii) higher leased access fees, primarily in Romania, and (iv) higher network maintenance costs, as an increase in Poland was only partially offset by a decrease in the Czech Republic.

Other Operating Expenses — 2016 compared to 2015

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2016	2015	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 203.2	€ 227.7	€ (24.5)	(10.8)	(9.6)
Central and Eastern Europe	176.2	175.5	0.7	0.4	1.3
Other	0.1	0.1	—	N.M.	N.M.
Total other operating expenses excluding share-based compensation expense	379.5	403.3	(23.8)	(5.9)	(4.9)
Share-based compensation expense	—	0.1	(0.1)	N.M.	
Total	€ 379.5	€ 403.4	€ (23.9)	(5.9)	

N.M. — Not Meaningful.

Our other operating expenses (exclusive of share-based compensation expense) decreased €23.8 million or 5.9% during 2016, as compared to 2015. This decrease includes an increase of €1.0 million attributable to the impact of acquisitions. On an organic basis, our other operating expenses decreased €19.6 million or 4.9%. This decrease includes the following factors:

- A decrease in personnel costs of €20.2 million or 14.2%, primarily due to decreased staffing levels in Switzerland/Austria, Hungary, Poland and Romania. The decreases in Hungary, Poland and Romania are primarily attributable to the outsourcing of certain maintenance contracts;

- An increase in network-related expenses of €7.4 million or 4.8%, largely due to (i) higher network maintenance costs, as increases in Hungary, Poland and Romania were only partially offset by a decrease in Switzerland/Austria, and (ii) higher duct and pole rental fees, primarily in Romania;

- A decrease in bad debt and collection expenses of €3.0 million or 13.1%, primarily related to declines in Hungary and Switzerland/Austria that were only partially offset by an increase in Poland; and

- A decrease in vehicle expenses of €2.3 million or 36.8%, primarily related to lower costs for company vehicles in Switzerland/Austria, Hungary, Poland and Romania due largely to fewer vehicles and the impact of the conversion of certain operating leases on company vehicles to capital leases.

SG&A Expenses of our Reportable Segments

SG&A expenses — 2017 compared to 2016

General. SG&A expenses include human resources, information technology, general services, management, finance, legal, external sales and marketing costs, share-based compensation and other general expenses. We do not include share-based compensation in the following discussion and analysis of the SG&A expenses of our reportable segments as share-based compensation expense is not included in the performance measures of our reportable segments. Share-based compensation expense is discussed under *Discussion and Analysis of Our Combined Operating Results* below.

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2017	2016	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 191.3	€ 194.9	€ (3.6)	(1.8)	(1.0)
Central and Eastern Europe	156.3	150.6	5.7	3.8	2.9
Other	1.4	1.6	(0.2)	(12.5)	(12.5)
Total SG&A expenses excluding share-based compensation expense	349.0	347.1	1.9	0.5	0.6
Share-based compensation expense	10.2	17.0	(6.8)	(40.0)	
Total	€ 359.2	€ 364.1	€ (4.9)	(1.3)	

Our SG&A expenses (exclusive of share-based compensation expense) increased €1.9 million or 0.5% during 2017, as compared to 2016. This increase includes an increase of €0.6 million attributable to the impact of acquisitions. On an organic basis, our SG&A increased €2.1 million or 0.6%. This increase includes the following factors:

- A decrease in outsourced labor and professional fees of €5.3 million or 34.1%, primarily due to (i) a decrease in consulting costs, primarily in Switzerland/Austria, Hungary and Poland and (ii) a decrease in call center costs in Switzerland/Austria;

- An increase in external sales and marketing costs of €4.9 million or 5.0%, primarily due to (i) higher third-party sales commissions, primarily in Hungary, Poland and Switzerland/Austria, and (ii) higher costs associated with advertising campaigns, primarily in Switzerland/Austria;

- An increase in personnel costs of €3.3 million or 1.9%, primarily due to the net effect of (i) increased staffing levels, primarily in Romania, Switzerland/Austria and Poland, (ii) lower costs related to certain employee benefits in Switzerland/Austria and (iii) higher incentive compensation costs, primarily in Switzerland/Austria;

- A decrease in facilities expenses of €1.3 million or 3.9%, primarily due to lower rent and other facilities-related expenses in Switzerland/Austria and Hungary;

- A decrease in information technology-related expenses of €1.2 million or 15.7%, primarily due to lower software and other information technology-related maintenance costs in Switzerland/Austria and the Czech Republic; and

- A net increase resulting from individually insignificant changes in other SG&A expense categories.

SG&A expenses — 2016 compared to 2015

	Year ended December 31, 2016	Year ended December 31, 2015	Increase (decrease) €	Increase (decrease) %	Organic increase (decrease) %
	in millions, except percentages				
Switzerland/Austria	€ 194.9	€ 205.7	€ (10.8)	(5.3)	(4.2)
Central and Eastern Europe	150.6	147.1	3.5	2.4	3.8
Other	1.6	1.4	0.2	14.3	14.3
Total SG&A expenses excluding share-based compensation expense	347.1	354.2	(7.1)	(2.0)	(0.8)
Share-based compensation expense	17.0	12.0	5.0	41.7	
Total	€ 364.1	€ 366.2	€ (2.1)	(0.6)	

Our SG&A expenses (exclusive of share-based compensation expense) decreased €7.1 million or 2.0% during 2016, as compared to 2015. This decrease includes an increase of €0.5 million attributable to the impact of acquisitions. On an organic basis, our SG&A expenses decreased €2.7 million or 0.8%. This decrease includes the following factors:

- An increase in personnel costs of €8.9 million or 5.3%, primarily due to increased staffing levels in Switzerland/Austria, Poland, Romania and Hungary;
- A decrease in external sales and marketing costs of €4.9 million or 4.7%, primarily due to lower costs associated with advertising campaigns in Switzerland/Austria;
- A decrease in outsourced labor and professional fees of €2.5 million of 14.4%, primarily due to (i) lower legal costs, primarily in Switzerland/Austria, and (ii) a decrease in consulting costs, as a decrease in Switzerland/Austria was only partially offset by an increase in Poland;
- A decrease in facilities expenses of €1.9 million or 5.6%, primarily due to lower rent and other facilities-related expenses in Switzerland/Austria; and
- A net decrease resulting from individually insignificant changes in other SG&A expense categories.

Segment OCF of our Reportable Segments

Segment OCF is the primary measure used by our chief operating decision maker to evaluate segment operating performance. For the definition of this performance measure and for a reconciliation of total Segment OCF to our loss before income taxes, see note 16 to our combined financial statements.

Segment OCF — 2017 compared to 2016

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2017	2016	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 934.6	€ 966.7	€ (32.1)	(3.3)	(2.2)
Central and Eastern Europe	455.8	426.5	29.3	6.9	5.4
Other	(1.4)	(1.7)	0.3	17.6	17.6
Total	€ 1,389.0	€ 1,391.5	€ (2.5)	(0.2)	0.1

Segment OCF — 2016 compared to 2015

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2016	2015	€	%	%
	in millions, except percentages				
Switzerland/Austria	€ 966.7	€ 937.2	€ 29.5	3.1	4.8
Central and Eastern Europe	426.5	427.1	(0.6)	(0.1)	1.4
Other	(1.7)	(1.5)	(0.2)	(13.3)	(13.3)
Total	€ 1,391.5	€ 1,362.8	€ 28.7	2.1	3.7

Segment OCF Margin — 2017, 2016 and 2015

The following table sets forth the Segment OCF margins (Segment OCF divided by revenue) of each of our reportable segments:

	Year ended December 31,		
	2017	2016	2015
		%	
Switzerland/Austria	59.7	60.9	59.2
Central and Eastern Europe	43.6	43.3	44.4
Total, including other	53.2	54.1	53.6

For discussion of the factors contributing to the changes in the Segment OCF margins of our reportable segments, see the above analyses of the revenue, operating expenses and SG&A expenses of our reportable segments.

Discussion and Analysis of our Combined Operating Results

General

For more detailed explanations of the changes in our revenue, see *Discussion and Analysis of our Reportable Segments* above.

2017 compared to 2016

Revenue

Our revenue by major category is set forth below:

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2017	2016	€	%	%
	in millions, except for percentages				
Residential revenue:					
Residential cable revenue (a):					
Subscription revenue (b):					
Video	€ 1,181.4	€ 1,193.7	€ (12.3)	(1.0)	(0.9)
Broadband internet	708.1	709.3	(1.2)	(0.2)	0.2
Fixed-line telephony	195.6	213.2	(17.6)	(8.3)	(7.5)
Total subscription revenue	2,085.1	2,116.2	(31.1)	(1.5)	(1.2)
Non-subscription revenue	135.8	118.2	17.6	14.9	16.3
Total residential cable revenue	2,220.9	2,234.4	(13.5)	(0.6)	(0.3)
Residential mobile revenue (c)					
Subscription revenue (b)	47.3	30.2	17.1	56.6	58.9
Non-subscription revenue	20.7	20.3	0.4	2.0	3.4
Total residential mobile revenue	68.0	50.5	17.5	34.7	36.6
Total residential revenue	2,288.9	2,284.9	4.0	0.2	0.5
B2B revenue (d):					
Subscription revenue	71.9	60.1	11.8	19.6	19.0
Non-subscription revenue	250.9	224.8	26.1	11.6	10.3
Total B2B revenue	322.8	284.9	37.9	13.3	12.1
Total	€ 2,611.7	€ 2,569.8	€ 41.9	1.6	1.8

(a) Residential cable subscription revenue includes amounts received from subscribers for ongoing services. Residential cable non-subscription revenue includes, among other items, channel carriage fees, installation revenue, late fees and revenue from the sale of equipment.

(b) Residential subscription revenue from subscribers who purchase bundled services at a discounted rate is generally allocated proportionally to each service based on the standalone price for each individual service. As a result, changes in the standalone pricing of our cable and mobile products or the composition of bundles can contribute to changes in our product revenue categories from period to period.

(c) Residential mobile subscription revenue includes amounts received from subscribers for ongoing services. Residential mobile non-subscription revenue includes, among other items, interconnect revenue and revenue from sales of mobile handsets and other devices. Residential mobile interconnect revenue was €6.1 million and €5.0 million during 2017 and 2016, respectively.

(d) B2B subscription revenue represents revenue from SOHO subscribers. SOHO subscribers pay a premium price to receive expanded service levels along with video, broadband internet, fixed-line telephony or mobile services that are the same or similar to the mass marketed products offered to our residential subscribers. A portion of the increases in our B2B subscription revenue is attributable to the conversion of certain residential subscribers to SOHO subscribers. B2B non-subscription revenue includes revenue from business broadband internet, video, fixed-line telephony, mobile and data services offered to medium to large enterprises and, on a wholesale basis, to other operators.

Total revenue. Our combined revenue increased €41.9 million during 2017, as compared to 2016. This increase includes €5.8 million attributable to the impact of acquisitions. On an organic basis, our combined revenue increased €47.3 million or 1.8%.

Residential revenue. The details of the change in our combined residential revenue for 2017, as compared to 2016, are as follows (in millions):

Organic increase (decrease) in residential cable subscription revenue due to change in:		
Average number of RGUs	€	45.4
ARPU		(71.0)
Organic increase in residential cable non-subscription revenue		19.3
Total organic decrease in residential cable revenue		(6.3)
Organic increase in residential mobile subscription revenue		17.8
Organic increase in residential mobile non-subscription revenue		0.7
Total organic increase in residential revenue		12.2
Impact of acquisitions		1.4
Impact of FX		(9.6)
Total increase in residential revenue	€	4.0

On an organic basis, our combined residential cable subscription revenue decreased €25.6 million or 1.2% during 2017, as compared to 2016. This decrease is attributable to the net effect of (i) a decrease in subscription revenue from fixed-telephony services of €16.0 million or 7.5%, attributable to the net effect of lower ARPU and an increase in the average number of RGUs, (ii) a decrease in subscription revenue from video services of €10.7 million or 0.9%, attributable to a decrease in the average number of video RGUs and lower ARPU and (iii) an increase in subscription revenue from broadband internet services of €1.1 million or 0.2%, attributable to the net effect of an increase in the average number of RGUs and lower ARPU.

On an organic basis, our combined residential cable non-subscription revenue increased €19.3 million or 16.3% during 2017, as compared to 2016. This increase is primarily attributable to increases in Switzerland, Hungary and Poland.

On an organic basis, our combined residential mobile subscription revenue increased €17.8 million or 58.9% during 2017, as compared to 2016. This increase is primarily due to increases in Switzerland and Austria.

On an organic basis, our combined residential mobile non-subscription revenue increased €0.7 million or 3.4% during 2017, as compared to 2016. This increase is primarily due to the net effect of (i) an increase in Austria and (ii) a decrease in Switzerland.

B2B revenue. On an organic basis, our combined B2B subscription revenue increased €11.4 million or 19.0% during 2017, as compared to 2016. This increase is primarily due to increases in SOHO in Hungary, Poland and Switzerland.

On an organic basis, our combined B2B non-subscription revenue increased €23.7 million or 10.3% during 2017, as compared to 2016. This increase is primarily due to increases in the Czech Republic, Switzerland, Poland and Hungary.

For additional information concerning the changes in our residential and B2B revenue, see *Discussion and Analysis of our Reportable Segments — Revenue — 2017 compared to 2016* above. For information regarding the competitive environment in certain of our markets, see *Overview* above.

Programming and other direct costs of services

Our programming and other direct costs of services increased €54.9 million during 2017, as compared to 2016. This increase includes €0.5 million attributable to the impact of acquisitions. On an organic basis, our programming and other direct costs of services increased €56.4 million or 12.5% during 2017, as compared to 2016. For additional information regarding the changes in our programming and other direct costs of services, see *Discussion and Analysis of our Reportable Segments — Programming and Other Direct Costs of Services of our Reportable Segments — 2017 compared to 2016* above.

Other operating expenses

Our other operating expenses decreased €12.4 million during 2017, as compared to 2016. This decrease includes €1.7 million attributable to the impact of acquisitions. Our other operating expenses include share-based compensation expense, which was insignificant during 2017 and 2016. On an organic basis, our other operating expenses decreased €12.8 million or 3.4% during 2017, as compared to 2016. For additional information regarding the changes in our other operating expenses, see *Discussion and Analysis of our Reportable Segments — Other Operating Expenses of our Reportable Segments — 2017 compared to 2016* above.

SG&A expenses

Our SG&A expenses decreased €4.9 million during 2017, as compared to 2016. This decrease includes €0.6 million attributable to the impact of acquisitions. Our SG&A expenses include share-based compensation expense, which decreased €6.8 million during 2017. For additional information, see the discussion in the following paragraph. Excluding share-based compensation expense, on an organic basis our SG&A expenses increased €2.1 million or 0.6% during 2017, as compared to 2016. For additional information regarding the changes in our SG&A expenses, see *Discussion and Analysis of our Reportable Segments — SG&A Expenses of our Reportable Segments — 2017 compared to 2016* above.

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

The amounts allocated by Liberty Global to our company represent the share-based compensation associated with the Liberty Global share-based incentive awards held by certain employees of our combined entities. A summary of the aggregate share-based compensation expense that is included in our SG&A expenses is set forth below:

	Year ended December 31,	
	2017	2016
	in millions	
Performance-based incentive awards	€ 2.0	€ 7.6
Other share-based incentive awards	8.2	9.4
Total	€ 10.2	€ 17.0

Related-party fees and allocations, net

We recorded related-party fees and allocations, net, of €379.8 million during 2017, as compared to €341.0 million during 2016. These amounts represent fees charged to the UPC Holding Group that originate with Liberty Global and certain other Liberty Global subsidiaries, and include charges for management, finance, legal, technology and other corporate and administrative services provided to our combined entities. For additional information, see note 12 to our combined financial statements.

Depreciation and amortization expense

Our depreciation and amortization expense increased €23.0 million during 2017, as compared to 2016. Excluding the effects of FX, depreciation and amortization expense increased €25.2 million or 4.4%. This increase is primarily due to the net effect of (i) an increase associated with property and equipment additions related to the installation of customer premises equipment, the expansion and upgrade of our networks and other capital initiatives and (ii) a decrease associated with certain assets becoming fully depreciated, primarily in Switzerland/Austria and Poland.

Impairment, restructuring and other operating items, net

We recognized impairment, restructuring and other operating items, net, of €5.2 million and €5.3 million during 2017 and 2016, respectively. The 2017 amount is primarily related to (i) employee severance and termination costs related to certain reorganization activities in Switzerland/Austria and (ii) direct acquisition costs in Poland. The 2016 amount is primarily related to restructuring charges in Hungary, the Czech Republic and Slovakia.

If, among other factors, (i) our enterprise value or Liberty Global's equity value were to decline significantly or (ii) the adverse impacts of economic, competitive, regulatory or other factors 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. For additional information, see *Critical Accounting Policies, Judgments and Estimates — Impairment of Property and Equipment and Intangible Assets* below.

Interest expense – third-party

Our third-party interest expense decreased €33.9 million during 2017, as compared to 2016. This decrease is primarily attributable to (i) a lower weighted average interest rate and (ii) a higher average outstanding third-party debt balance. We have completed various refinancing transactions that have lowered average interest rates and extended debt maturities. For additional information regarding our outstanding indebtedness, see note 9 to our combined 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 6 to our combined financial statements we use derivative instruments to manage our interest rate risks.

Interest expense – related-party

Our related-party interest expense primarily relates to the interest expense on the Shareholder Loan. Our related-party interest expense increased €64.5 million during 2017, as compared to 2016. This increase is primarily due to an increase in the average outstanding balance of the Shareholder Loan. For additional information, see note 12 to our combined financial statements.

Realized and unrealized losses on derivative instruments, net

Our realized and unrealized gains or losses on derivative instruments include (i) unrealized changes in the fair values of our derivative instruments that are non-cash in nature until such time as the derivative contracts are fully or partially settled and (ii) realized gains or losses upon the full or partial settlement of the derivative contracts. The details of our realized and unrealized losses on derivative instruments, net, are as follows:

	Year ended December 31,	
	2017	2016
	in millions	
Cross-currency and interest rate derivative contracts (a)	€ (170.9)	€ (21.8)
Foreign currency forward and option contracts	5.1	(6.2)
Other	0.6	(0.9)
Total	€ (165.2)	€ (28.9)

(a) The loss during 2017 is primarily attributable to the net effect of (i) a net loss associated with changes in the relative value of certain currencies and (ii) a net gain associated with changes in certain market interest rates. In addition, the loss during 2017 includes a net gain of €14.9 million resulting from changes in our credit risk valuation adjustments. The loss during 2016 is primarily attributable to changes associated with the relative value of certain currencies and certain market interest rates. In addition, the loss during 2016 includes a net loss of €18.5 million resulting from changes in our credit risk valuation adjustments.

For additional information regarding our derivative instruments, see notes 6 and 7 to our combined financial statements.

Foreign currency transaction gains (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 gains (losses), net, are as follows:

	Year ended December 31,	
	2017	2016
	in millions	
U.S. dollar denominated debt issued by euro functional currency entities	€ 242.7	€ (80.9)
Intercompany payables and receivables denominated in a currency other than the entity's functional currency (a)	44.3	(40.1)
Cash and restricted cash denominated in a currency other than the entity's functional currency	1.8	7.1
Other	0.5	(3.9)
Total	€ 289.3	€ (117.8)

(a) Amounts primarily relate to (i) loans between certain of our non-operating and operating entities, which generally are denominated in the currency of the applicable operating entity, and (ii) loans between certain of our non-operating entities.

Losses on debt modification and extinguishment, net

We recognized net losses on debt modification and extinguishment of €97.0 million and €70.3 million during 2017 and 2016, respectively.

The loss during 2017 is attributable to (i) the payment of €72.2 million of redemption premium and (ii) the write-off of €24.8 million of unamortized deferred financing costs and discounts.

The loss during 2016 is primarily attributable to (i) the payment of €52.3 million of redemption premium and (ii) the write-off of €18.0 million of unamortized deferred financing costs and discounts.

For additional information concerning our losses on debt modification and extinguishment, net, see note 9 to our combined financial statements.

Income tax expense

We recognized income tax expense of €14.9 million and €57.3 million during 2017 and 2016, respectively.

The income tax expense during 2017 and 2016 differs from the expected income tax benefit of €119.6 million and €155.5 million, respectively, (based on the Dutch 25.0% income tax rate) primarily due to the negative impact of (i) a net increase in valuation allowances and (ii) certain permanent differences between the financial and tax accounting treatment of interest and other items.

For additional information concerning our income taxes, see note 10 to our combined financial statements.

Net loss

During 2017 and 2016, we reported net losses of €493.3 million and €679.3 million, respectively, including (i) operating income of €422.4 million and €479.8 million, respectively, (ii) net non-operating expense of €900.8 million and €1,101.8 million, respectively, and (iii) income tax expense of €14.9 million and €57.3 million, respectively.

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 from operations is largely dependent on our ability to increase our aggregate Segment OCF to a level that more than offsets the aggregate amount of our (a) share-based compensation expense, (b) related-party fees and allocations, net, (c) depreciation and amortization, (d) impairment, restructuring and other operating items, (e) interest expense, (f) other non-operating expenses and (g) income tax expenses.

Subject to the limitations included in our various debt instruments, we expect that Liberty Global will cause our company to maintain our debt at current levels relative to our Covenant EBITDA. As a result, we expect that we will continue to report significant levels of interest expense for the foreseeable future. For information concerning our expectations with respect to trends that may affect certain aspects of our operating results in future periods, see the discussion under *Overview* above. For information concerning the reasons for changes in specific line items in our combined statements of operations, see the discussion under *Discussion and Analysis of our Reportable Segments* and *Discussion and Analysis of our combined Operating Results* above.

Net earnings attributable to noncontrolling interests

Net earnings attributable to noncontrolling interests decreased €2.3 million during 2017, as compared to 2016. This decrease is largely attributable to the results of operations of Austria.

2016 compared to 2015

Revenue

Our revenue by major category is set forth below:

	Year ended December 31,		Increase (decrease)		Organic increase (decrease)
	2016	2015	€	%	%
	in millions, except percentages				
Residential revenue:					
Residential cable revenue (a):					
Subscription revenue (b):					
Video	€ 1,193.7	€ 1,193.9	€ (0.2)	—	1.6
Broadband internet	709.3	705.6	3.7	0.5	1.9
Fixed-line telephony	213.2	231.7	(18.5)	(8.0)	(6.4)
Total subscription revenue	2,116.2	2,131.2	(15.0)	(0.7)	0.8
Non-subscription revenue	118.2	121.3	(3.1)	(2.6)	(1.4)
Total residential cable revenue	2,234.4	2,252.5	(18.1)	(0.8)	0.7
Residential mobile revenue (c):					
Subscription revenue (b)	30.2	12.2	18.0	147.5	152.2
Non-subscription revenue	20.3	9.9	10.4	105.1	108.5
Total residential mobile revenue	50.5	22.1	28.4	128.5	132.6
Total residential revenue	2,284.9	2,274.6	10.3	0.5	2.0
B2B revenue (d):					
Subscription revenue	60.1	48.9	11.2	22.9	24.8
Non-subscription revenue	224.8	221.3	3.5	1.6	2.2
Total B2B revenue	284.9	270.2	14.7	5.4	6.3
Total	€ 2,569.8	€ 2,544.8	€ 25.0	1.0	2.5

(a) Residential cable subscription revenue includes amounts received from subscribers for ongoing services. Residential cable non-subscription revenue includes, among other items, channel carriage fees, installation revenue, late fees and revenue from the sale of equipment.

(b) Residential subscription revenue from subscribers who purchase bundled services at a discounted rate is generally allocated proportionally to each service based on the standalone price for each individual service. As a result, changes in the standalone pricing of our cable and mobile products or the composition of bundles can contribute to changes in our product revenue categories from period to period.

(c) Residential mobile subscription revenue includes amounts received from subscribers for ongoing services. Residential mobile non-subscription revenue includes, among other items, interconnect revenue and revenue from sales of mobile handsets and other devices. Residential mobile interconnect revenue was €5.0 million and €1.7 million during 2016 and 2015, respectively.

(d) B2B subscription revenue represents revenue from SOHO subscribers. SOHO subscribers pay a premium price to receive expanded service levels along with video, broadband internet, fixed-line telephony or mobile services that are the same or similar to the mass marketed products offered to our residential subscribers. A portion of the increases in our B2B subscription revenue is attributable to the conversion of certain residential subscribers to SOHO subscribers. B2B non-subscription revenue includes revenue from business broadband internet, video, fixed-line telephony, mobile and data services offered to medium to large enterprises and, on a wholesale basis, to other operators.

Total revenue. Our combined revenue increased €25.0 million during 2016, as compared to 2015. This increase includes €4.5 million attributable to the impact of acquisitions. Excluding the effects of the acquisition and FX, our combined revenue increased €62.6 million or 2.5%.

Subscription revenue. The details of the change in our combined subscription revenue for 2016, as compared to 2015, are as follows (in millions):

Organic increase (decrease) in residential cable subscription revenue due to change in:		
Average number of RGUs	€	78.7
ARPU		(61.0)
Organic decrease in residential cable non-subscription revenue		(1.8)
Total organic increase in residential cable revenue		15.9
Organic increase in residential mobile subscription revenue		18.5
Organic increase in residential mobile non-subscription revenue		10.7
Total organic increase in residential revenue		45.1
Impact of acquisitions		2.8
Impact of FX		(37.6)
Total	€	10.3

On an organic basis, our combined cable subscription revenue increased €17.7 million or 0.8% during 2016, as compared to 2015. This increase in subscription revenue is attributable to the net effect of (i) an increase in subscription revenue from video services of €19.4 million or 1.6%, attributable to higher ARPU and an increase in the average number RGUs, (ii) an increase in subscription revenue from broadband internet services of €13.2 million or 1.9%, attributable to the net effect of an increase in the average number RGUs and lower ARPU and (iii) a decrease in subscription revenue from fixed-line telephony services of €14.9 million or 6.4%, attributable to the net effect of lower ARPU and an increase in the average number of RGUs.

On an organic basis, our combined residential cable non-subscription revenue decreased €1.8 million or 1.4% during 2016, as compared to 2015. This decrease is primarily due to decreases in Switzerland and Austria.

On an organic basis, our combined residential mobile subscription revenue increased €18.5 million or 152.2% during 2016, as compared to 2015. This increase is primarily due to increases in Switzerland, Hungary and Austria.

On an organic basis, our combined residential mobile non-subscription revenue increased €10.7 million or 108.5% during 2016, as compared to 2015. This increase is primarily due to an increase in Switzerland.

B2B revenue. On an organic basis, our combined B2B revenue increased €12.1 million or 24.8% during 2016, as compared to 2015. This increase is primarily due to increases in Poland, Switzerland, and the Czech Republic.

On an organic basis, our combined B2B non-subscription revenue increase increased €5.4 million or 2.2% during 2016, as compared to 2015. This increase is primarily due to increases in the Czech Republic, Switzerland, Romania and Poland.

For additional information concerning the changes in our subscription, B2B and other revenue, see *Discussion and Analysis of our Reportable Segments — Revenue — 2016 compared to 2015* above.

Programming and other direct costs of services

Our programming and other direct costs of services increased €27.2 million during 2016, as compared to 2015. This increase includes an increase of €1.2 million attributable to the impact of acquisitions. On an organic basis, our programming and other direct costs of services increased €33.9 million or 8.0% during 2016, as compared to 2015. For additional information regarding the changes in our programming and other direct costs of services, see *Discussion and Analysis of our Reportable Segments — Programming and Other Direct Costs of Services of our Reportable Segments — 2016 compared to 2015* above.

Other operating expenses

Our other operating expenses decreased €23.9 million during 2016, as compared to 2015. This decrease includes an increase of €1.0 million attributable to the impact of acquisitions. Our other operating expenses include share-based compensation expense, which was insignificant during 2016 and 2015. On an organic basis, our other operating expenses decreased €19.6 million or 4.9% during 2016, as compared to 2015. For additional information regarding the changes in our other operating expenses, see *Discussion and Analysis of our Reportable Segments — Other Operating Expenses of our Reportable Segments — 2016 compared to 2015* above.

SG&A expenses

Our SG&A expenses decreased €2.1 million during 2016, as compared to 2015. This decrease includes an increase of €0.5 million attributable to the impact of acquisitions. Our SG&A expenses include share-based compensation expense, which increased €5.0 million during 2016. For additional information, see the discussion in the following paragraph. Excluding share-based compensation expense, on an organic basis our SG&A expenses decreased €2.7 million or 0.8% during 2016, as compared to 2015. For additional information regarding the changes in our SG&A expenses, see *Discussion and Analysis of our Reportable Segments — SG&A Expenses of our Reportable Segments — 2016 compared to 2015* above.

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

The amounts allocated by Liberty Global to our company represent the share-based compensation associated with the Liberty Global share-based incentive awards held by certain employees of our combined entities. A summary of the aggregate share-based compensation expense that is included in our other operating and SG&A expenses is set forth below:

	Year ended December 31,	
	2016	2015
	in millions	
Performance-based incentive awards	€ 7.6	€ 4.8
Other share-based incentive awards	9.4	7.3
Total	€ 17.0	€ 12.1
Included in:		
Operating expense	€ —	€ 0.1
SG&A expense	17.0	12.0
Total	€ 17.0	€ 12.1

Related-party fees and allocations, net

We recorded related-party fees and allocations, net, of €341.0 million during 2016, as compared to €293.1 million during 2015. These amounts represent fees charged to the UPC Holding Group that originate with Liberty Global and certain other Liberty Global subsidiaries, and include charges for management, finance, legal, technology and other corporate and administrative services provided to our combined entities. For additional information, see note 12 to our combined financial statements.

Depreciation and amortization expense

Our depreciation and amortization expense decreased €23.7 million during 2016, as compared to 2015. Excluding the effects of FX, depreciation and amortization expense decreased €14.0 million or 2.6%. This decrease is primarily due to the net effect of (i) a decrease associated with certain assets becoming fully depreciated, primarily in Switzerland/Austria and (ii) an increase associated with property and equipment additions related to the installation of customer premises equipment, the expansion and upgrade of our networks and other capital initiatives.

Impairment, restructuring and other operating items, net

We recognized impairment, restructuring and other operating items, net, of €5.3 million and €5.0 million during 2016 and 2015, respectively. The 2016 amount is primarily related to restructuring charges in Hungary, the Czech Republic and Slovakia. The 2015 amount is primarily related to restructuring charges associated with reorganization and integration activities in Switzerland/Austria.

Interest expense – third-party

Our third-party interest expense decreased €31.3 million during 2016, as compared to 2015. This decrease is primarily attributable to (i) a lower average outstanding debt balance and (ii) a lower weighted average interest rate mainly related to the refinancing transactions completed during the first quarter of 2015. For additional information regarding our outstanding indebtedness, see note 9 to our combined financial statements.

Interest expense – related-party

Our related-party interest expense primarily relates to the interest expense on the Shareholder Loan. Our related-party interest expense decreased €35.4 million during 2016, as compared to 2015. This decrease is primarily due to a decrease in the average outstanding balance of the Shareholder Loan, mainly related to the refinancing transactions completed during the first quarter of 2015. For additional information, see note 12 to our combined financial statements.

Realized and unrealized losses on derivative instruments, net

The details of our realized and unrealized losses on derivative instruments, net, are as follows:

	Year ended December 31,	
	2016	**2015**
	in millions	
Cross-currency and interest rate derivative contracts (a)	€ (21.8)	€ (41.3)
Foreign currency forward and option contracts	(6.2)	(1.8)
Other	(0.9)	0.8
Total	€ (28.9)	€ (42.3)

(a) The loss during 2016 is primarily attributable to changes associated with the relative value of certain currencies and certain market interest rates. In addition, the loss during 2016 includes a net loss of €18.5 million resulting from changes in our credit risk valuation adjustments. The loss during 2015 is primarily attributable to (i) a net loss associated with changes in certain market interest rates and (ii) a net loss associated with changes in the relative value of certain currencies. In addition, the loss during 2015 includes a net gain of €26.6 million resulting from changes in our credit risk valuation adjustments.

For additional information regarding our derivative instruments, see notes 6 and 7 to our combined financial statements.

Foreign currency transaction gains (losses), net

The details of our foreign currency transaction gains (losses), net, are as follows:

	Year ended December 31,	
	2016	2015
	in millions	
U.S. dollar denominated debt issued by euro functional currency entities	€ (80.9)	€ (164.9)
Intercompany payables and receivables denominated in a currency other than the entity's functional currency (a)	(40.1)	(74.4)
Cash and restricted cash denominated in a currency other than the entity's functional currency	7.1	30.0
Other	(3.9)	(6.7)
Total	€ (117.8)	€ (216.0)

(a) Amounts primarily relate to (i) loans between certain of our non-operating and operating entities, which generally are denominated in the currency of the applicable operating entity, and (ii) loans between certain of our non-operating entities.

Losses on debt modification and extinguishment, net

We recognized net losses on debt modification and extinguishment of €70.3 million and €183.9 million during 2016 and 2015, respectively.

The loss during 2016 is attributable to (i) the payment of €52.3 million of redemption premium and (ii) the write-off of €18.0 million of unamortized deferred financing costs and discounts.

The loss during 2015 is attributable to (i) the payment of €149.2 million of redemption premium and (ii) the write-off of €34.7 million of unamortized deferred financing costs and discounts.

For additional information concerning our losses on debt modification and extinguishment, net, see note 9 to our combined financial statements.

Income tax expense

We recognized income tax expense of €57.3 million and €85.5 million during 2016 and 2015, respectively.

The income tax expense during 2016 and 2015 differs from the expected income tax benefit of €155.5 million and €228.8 million, respectively, (based on the Dutch 25.0% income tax rate) primarily due to the negative impact of (i) a net increase in valuation allowances and (ii) certain permanent differences between the financial and tax accounting treatment of interest and other items.

For additional information concerning our income taxes, see note 10 to our combined financial statements.

Net loss

During 2016 and 2015, we reported net losses of €679.3 million and €1,000.8 million, respectively, including (i) operating income of €479.8 million and €480.5 million, respectively, (ii) net non-operating expense of €1,101.8 million and €1,395.8 million, respectively, and (iii) income tax expense of €57.3 million and €85.5 million, respectively.

Net earnings attributable to noncontrolling interests

Net earnings attributable to noncontrolling interests increased €1.0 million during 2016, as compared to 2015. This increase is primarily attributable to the results of operations of UMI, which we began consolidating on January 1, 2015.

Liquidity and Capital Resources

Sources and Uses of Cash

The UPC Holding Group's primary assets are its investments in its combined entities, and the majority of our operating entities are owned by UPC Broadband Holding. Although our combined operating entities generate cash from operating activities, the terms of the instruments governing the indebtedness of UPC Broadband Holding may restrict our ability to access the liquidity of these entities. These entities accounted for substantially all of our €27.5 million of combined cash and cash equivalents at December 31, 2017. In addition, our ability to access the liquidity of these and other combined entities may be limited by tax and legal considerations, the presence of noncontrolling interests and other factors.

Corporate Liquidity of the UPC Holding Group

As the UPC Holding Group typically does not hold significant amounts of cash and cash equivalents at the corporate level, the UPC Holding Group's primary source of corporate liquidity is proceeds received from UPC Broadband Holding (and indirectly from UPC Broadband Holding's combined entities) in the form of loans or distributions. As noted above, various factors may limit the ability of the UPC Holding Group's combined entities to loan or distribute cash. From time to time, the UPC Holding Group may also supplement its sources of corporate liquidity with net proceeds received in connection with the issuance of debt instruments and/or loans or contributions from LGE Financing (and ultimately Liberty Global and other Liberty Global subsidiaries). No assurance can be given that any external funding would be available on favorable terms, or at all.

The UPC Holding Group's corporate liquidity requirements include (i) corporate general and administrative expenses and (ii) interest payments on the UPC Holding Senior Notes. From time to time, UPC Holding may also require cash in connection with (a) the repayment of third-party and related-party debt (including the repurchase or exchange of outstanding debt securities in the open market or privately-negotiated transactions and net repayments to LGE Financing pursuant to the Shareholder Loan, as described in note 12 to our combined financial statements), (b) the funding of loans or distributions to LGE Financing (and ultimately Liberty Global and other Liberty Global subsidiaries), (c) the satisfaction of contingent liabilities, (d) acquisitions, (e) other investment opportunities or (f) income tax payments.

Liquidity of Combined Operating Entities

In addition to cash and cash equivalents, the primary sources of liquidity of our combined operating entities are cash provided by operations and, in the case of UPC Broadband Holding, borrowing availability under the UPC Holding Bank Facility. For the details of the borrowing availability under the UPC Holding Bank Facility at December 31, 2017, see note 9 to our combined financial statements. Our combined operating entities' liquidity generally is used to fund property and equipment additions, debt service requirements and payments required by the UPC Holding Group's derivative instruments. From time to time, our combined operating entities may also require liquidity in connection with (i) acquisitions and other investment opportunities, (ii) loans to UPC Holding or other Liberty Global subsidiaries, (iii) capital distributions to UPC Holding or (iv) the satisfaction of contingencies. No assurance can be given that any external funding would be available to our combined operating entities on favorable terms, or at all.

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

Capitalization

At December 31, 2017, the outstanding principal amount of our combined third-party debt, together with our capital lease obligations, aggregated €6,156.0 million, including €664.2 million that is classified as current in our combined balance sheet and €5,408.5 million that is not due until 2023 or thereafter. For additional information regarding our current debt maturities, see note 9 to our combined financial statements.

When it is cost effective, we generally seek to match the denomination of the borrowings of our combined entities with the functional currency of the operations that are supporting the respective borrowings. As further discussed in note 6 to our combined financial statements, we also use derivative instruments to mitigate foreign currency and interest rate risk associated with our debt instruments.

Our ability to service or refinance our debt and to maintain compliance with the leverage covenants in the credit agreements and indentures of the UPC Holding Group is dependent primarily on our ability to maintain or increase the Covenant EBITDA of our operating entities 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 the leverage covenants contained in the UPC Holding Group's 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, 2017, the UPC Holding Group was in compliance with its respective debt covenants. In addition, we do not anticipate any instances of non-compliance with respect to any of our debt covenants that would have a material adverse impact on our liquidity during the next 12 months.

Notwithstanding our negative working capital position at December 31, 2017, 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 maturing debt grows 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 these refinancing transactions or otherwise extend our debt maturities. In this regard, it is not possible to predict how political and economic conditions, sovereign debt concerns or any adverse regulatory developments could impact the credit markets we access and, accordingly, our future liquidity and financial position. However, (i) the financial failure of any of our counterparties 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 could adversely impact our ability to access debt financing on favorable terms, or at all. 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.

With the exception of the UPC Holding Senior Notes, all of our combined third-party debt and capital lease obligations had been borrowed or incurred by our combined entities at December 31, 2017.

For additional information regarding our debt and capital lease obligations, see note 9 to our combined financial statements.

Combined Statements of Cash Flows

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

Combined Statements of Cash Flows — 2017 compared to 2016

Summary. Our combined statements of cash flows for 2017 and 2016 are summarized as follows:

	Year ended December 31,		
	2017	2016	Change
		in millions	
Net cash provided by operating activities	€ 696.0	€ 759.1	€ (63.1)
Net cash used by investing activities	(247.5)	(183.4)	(64.1)
Net cash used by financing activities	(448.0)	(693.7)	245.7
Effect of exchange rate changes on cash	0.2	5.8	(5.6)
Net increase (decrease) in cash and cash equivalents	€ 0.7	€ (112.2)	€ 112.9

Operating Activities. The decrease in net cash provided by our operating activities is primarily attributable to the net effect of (i) a decrease in cash provided due to higher cash payments related to derivative instruments, (ii) an increase in cash provided due to lower cash payments for third-party interest and (iii) a decrease in cash provided by our Segment OCF and related working capital changes.

Investing Activities. The increase in net cash used by our investing activities is primarily attributable to an increase in cash used of €69.2 million associated with higher capital expenditures. Capital expenditures increased from €175.0 million during 2016 to €244.2 million during 2017 due to the net effect of (i) an increase in the local currency capital expenditures of our combined entities, including an increase associated with lower capital-related vendor financing and an increase associated with related working capital movements, and (ii) a decrease resulting from FX.

The capital expenditures that we report in our combined statements of cash flows do not include (i) amounts that are financed under capital-related vendor financing or capital lease arrangements or (ii) purchased assets transferred to our company by another entity under the common control of Liberty Global in exchange for non-cash increases to the Shareholder Loan or non-cash contributions from our parent entities (non-cash related-party capital additions). Instead, these amounts are reflected as non-cash additions to our property and equipment when the underlying assets are delivered, and in the case of capital-related vendor financing and capital lease arrangements and non-cash related-party capital additions that are settled through increases to the Shareholder Loan, as repayments of debt when the principal is repaid. In this discussion, we refer to (a) our capital expenditures as reported in our combined statements of cash flows, which exclude non-cash related-party capital additions and amounts financed under capital-related vendor financing or capital lease arrangements, and (b) our total property and equipment additions, which include our capital expenditures on an accrual basis, non-cash related-party capital additions and amounts financed under capital-related vendor financing or capital lease arrangements. For additional information, see notes 8 and 9 to our combined financial statements. For further details on property and equipment additions, including a reconciliation of our combined property and equipment additions to our combined capital expenditures as reported in our combined statements of cash flows, see note 16 to our combined financial statements.

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

	Year ended December 31,	
	2017	2016
	in millions	
Property and equipment additions	€ 672.1	€ 650.7
Assets acquired under capital-related vendor financing arrangements	(622.9)	(640.0)
Assets contributed by parent entities	(14.6)	(17.3)
Assets acquired under capital leases	(60.3)	(12.2)
Changes in current liabilities related to capital expenditures (including related-party amounts)	269.9	193.8
Capital expenditures	€ 244.2	€ 175.0

Our segment property and equipment additions increased during 2017, as compared to 2016, primarily due to the net effect of (i) an increase in expenditures to support new customer products and operational efficiency initiatives, (ii) a decrease in expenditures for new build and upgrade projects and (iii) a decrease in expenditures for the purchase and installation of customer premises equipment. During 2017 and 2016, our segment property and equipment additions represented 25.9% and 24.7% of our revenue, respectively.

Financing Activities. The decrease in net cash used by our financing activities is primarily attributable to the net effect of (i) an increase in cash used of €600.0 million related to an increase in cash collateral, due to cash held in escrow at June 30, 2017 in connection with a refinancing transaction, as further described in note 9 to our combined financial statements, (ii) a decrease in cash used of €448.4 million due to higher net borrowings of third-party debt, (iii) a decrease in cash used of €429.3 million due to higher net borrowings of related-party debt, (iv) an increase in cash used €152.0 million related to VAT paid on behalf of a related party and (v) a decrease in cash used of €117.4 million due to lower cash payments related to derivative instruments.

Combined Statements of Cash Flows — 2016 compared to 2015

Summary. Our combined statements of cash flows for 2016 and 2015 are summarized as follows:

	Year ended December 31, 2016	Year ended December 31, 2015	Change
	in millions		
Net cash provided (used) by operating activities	€ 759.1	€ (808.7)	€ 1,567.8
Net cash used by investing activities	(183.4)	(217.5)	34.1
Net cash provided (used) by financing activities	(693.7)	1,085.4	(1,779.1)
Effect of exchange rate changes on cash	5.8	28.5	(22.7)
Net increase (decrease) in cash and cash equivalents	€ (112.2)	€ 87.7	€ (199.9)

Operating Activities. The change in net cash provided (used) by our operating activities is primarily attributable to the net effect of (i) an increase in cash due to lower cash payments for related-party interest, (ii) an increase in cash due to lower cash payments related to derivative instruments, (iii) an increase in cash provided by our Segment OCF and related working capital changes and (iv) a decrease in cash due to higher cash payments for taxes.

Investing Activities. The decrease in net cash used by our investing activities is primarily attributable to the net effect of (i) a decrease in cash used of €64.5 million associated with net repayments from (advances to) related parties and (ii) an increase in cash used of €35.3 million associated with higher capital expenditures.

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

	Year ended December 31, 2016	Year ended December 31, 2015
	in millions	
Property and equipment additions	€ 650.7	€ 521.3
Assets acquired under capital-related vendor financing arrangements	(640.0)	(517.8)
Assets contributed by parent entities	(17.3)	(16.0)
Assets acquired under capital leases	(12.2)	(1.0)
Changes in current liabilities related to capital expenditures (including related-party amounts)	193.8	153.2
Capital expenditures	€ 175.0	€ 139.7

Our segment property and equipment additions increased during 2016, as compared to 2015, primarily due to (i) an increase in expenditures for new build and upgrade projects to expand service, (ii) an increase in expenditures for the purchase and installation of customer premises equipment and (iii) an increase in expenditures for support capital, such as information technology upgrades and general support systems. During 2016 and 2015, our segment property and equipment additions represented 24.7% and 21.1% of our revenue, respectively.

Financing Activities. The change in net cash provided (used) by our financing activities is primarily attributable to the net effect of (i) a decrease in cash of €3,893.3 million due to lower net borrowings of related-party debt, (ii) an increase in cash of €2,077.2 million due to lower net repayments of third-party debt and capital lease obligations, (iii) an increase in cash of €116.4 million due to lower payments for financing costs and debt premiums, (iv) a decrease in cash of €51.5 million related to changes in cash collateral and (v) a decrease in cash of €25.4 million due to higher cash payments related to derivative instruments.

Contractual Commitments

The euro equivalents of our commitments as of December 31, 2017, are presented below:

	Payments due during:						
	2018	2019	2020	2021	2022	Thereafter	Total
				in millions			
Debt (excluding interest):							
Third-party	€ 654.0	€ 4.4	€ 13.6	€ 12.1	€ 8.1	€ 5,384.1	€ 6,076.3
Related-party	—	—	—	—	—	6,700.5	6,700.5
Capital leases (excluding interest)	10.5	10.8	11.3	12.7	10.0	24.4	79.7
Programming commitments	128.2	112.3	110.9	61.2	27.3	—	439.9
Purchase commitments	198.1	44.6	42.5	12.7	12.3	42.7	352.9
Network and connectivity commitments	92.9	42.6	28.3	11.6	7.0	19.7	202.1
Operating leases	29.2	24.4	20.1	16.3	13.1	64.6	167.7
Other commitments	3.0	0.7	0.3	—	—	—	4.0
Total (a)	€ 1,115.9	€ 239.8	€ 227.0	€ 126.6	€ 77.8	€ 12,236.0	€14,023.1
Projected cash interest payments on third-party debt and capital lease obligations (b)	€ 255.4	€ 241.5	€ 241.4	€ 240.3	€ 228.5	€ 959.6	€ 2,166.7

(a) The commitments included in this table do not reflect any liabilities that are included in our December 31, 2017 combined balance sheet other than debt and capital lease obligations. Our liability for uncertain tax positions in the various jurisdictions in which we operate (€4.8 million at December 31, 2017) has been excluded from the table as the amount and timing of any related payments are not subject to reasonable estimation.

(b) Amounts are based on interest rates, interest payment dates, commitment fees and contractual maturities in effect as of December 31, 2017. These amounts are presented for illustrative purposes only and will likely differ from the actual cash payments required in future periods. In addition, the amounts presented do not include the impact of our interest rate derivative contracts, deferred financing costs, original issue premiums or discounts. Amounts associated with related-party debt are excluded from the table.

For information concerning our debt and capital lease obligations, see note 9 to our combined financial statements. For information concerning our commitments, see note 15 to our combined financial statements.

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 projected cash flows associated with these derivative instruments, see *Projected Cash Flows Associated with Derivative Instruments* below. For information regarding our derivative instruments, including the net cash paid or received in connection with these instruments during 2017, 2016 and 2015, see note 6 to our combined financial statements. For information concerning our defined benefit plans, see note 13 to our combined financial statements.

Projected Cash Flows Associated with Derivative Instruments

The following table provides information regarding the projected cash flows associated with our derivative instruments at December 31, 2017. The euro equivalents presented below are based on interest rates and exchange rates that were in effect as of December 31, 2017. 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 6 to our combined financial statements.

	Payments (receipts) due during:						
	2018	2019	2020	2021	2022	Thereafter	Total
	in millions						
Projected derivative cash payments (receipts), net:							
Interest-related (a)	€ (2.8)	€ 49.4	€ 19.2	€ 16.2	€ (17.0)	€ (87.5)	€ (22.5)
Principal-related (b)	—	—	71.8	(60.4)	(68.9)	(130.4)	(187.9)
Other	—	—	(1.8)	—	—	—	(1.8)
Total	€ (2.8)	€ 49.4	€ 89.2	€ (44.2)	€ (85.9)	€ (217.9)	€ (212.2)

(a) Includes (i) the cash flows of our interest rate collar, swaptions and swap contracts and (ii) the interest-related cash flows of our cross-currency and interest rate swap contracts.

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

Critical Accounting Policies, Judgments and Estimates

In connection with the preparation of our combined 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 combined 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; and
- Income tax accounting.

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

Impairment of Property and Equipment and Intangible Assets

Carrying Value. The aggregate carrying value of our property and equipment and intangible assets (including goodwill) that were held for use comprised 74% of our total assets at December 31, 2017.

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) an expectation of a sale or disposal of a long-lived asset or asset group, (ii) adverse changes in market or competitive conditions, (iii) an adverse change in legal factors or business climate in the markets in which we operate and (iv) 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 (a) sale prices for similar assets, (b) discounted estimated future cash flows using an appropriate discount rate and/or (c) 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 the carrying amount of goodwill may not be recoverable. For impairment evaluations, 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. Any excess of the carrying amount over the fair value would be charged to operations as an impairment loss. A reporting unit is an operating segment or one level below an operating segment (referred to as a "component"). If the carrying value of a reporting unit were to exceed its fair value, we would then compare the implied fair value of the reporting unit's goodwill to its carrying amount, and any excess of the carrying amount over the fair value would be charged to operations as an impairment loss.

When required, considerable management judgment is necessary to estimate the fair value of reporting units and underlying long-lived assets. We typically determine fair value using an income-based approach (discounted cash flows) based on assumptions in our long-range business plans and, in some cases, a combination of an income-based approach and a 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 Segment 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. Based on the results of our 2017 qualitative assessment of our reporting unit carrying values, we determined that it was more-likely-than-not that fair value exceeded carrying value for all of our reporting units.

During the three years ended December 31, 2017, we did not record any significant impairment charges with respect to our property and equipment and intangible assets. For additional information regarding our long-lived assets, see note 8 to our combined financial statements.

If, among other factors, (i) our enterprise value or Liberty Global's equity values were to decline significantly or (ii) the adverse impacts of economic, competitive, regulatory or other factors 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.

Costs Associated with Construction and Installation Activities

We capitalize costs associated with the construction of new cable and mobile transmission and distribution facilities and the installation of new cable services. 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

U.S. GAAP provides guidance with respect to the recurring and nonrecurring fair value measurements and 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.

Recurring Valuations. We perform recurring fair value measurements with respect to our derivative instruments. We use cash flow valuation models to determine the fair values of our interest rate and foreign currency derivative instruments. We use quoted market prices when available and, when not available, we use a combination of an income approach (discounted cash flows) and a market approach (market multiples of similar businesses) to determine the fair value of our fair value method investments. For a detailed discussion of the inputs we use to determine the fair value of our derivative instruments and fair value method investments, see note 7 to our combined financial statements. See also note 6 to our combined financial statements for information concerning our derivative instruments.

Changes in the fair values of our derivative instruments have had, and we believe will continue to have, a significant and volatile impact on our results of operations. During 2017, 2016 and 2015, we recognized net losses of €165.2 million, €28.9 million and €42.3 million, respectively, attributable to changes in the fair values of our derivative instruments.

As further described in note 7 to our combined financial statements, actual amounts received or paid upon the settlement or disposition of our derivative instruments may differ materially from the recorded fair values at December 31, 2017.

Nonrecurring Valuations. Our nonrecurring valuations are primarily associated with (i) the application of acquisition accounting and (ii) impairment assessments, both of which require 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, impairment charges 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 and all of our long-lived assets are subject to impairment assessments. For additional information, see notes 4, 7 and 8 to our combined 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 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, 2017, the aggregate valuation allowance provided against deferred tax assets was €2,447.5 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, 2017 combined 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 as reported in our combined financial statements. 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 many tax positions we take are 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 combined financial statements is different than the amount taken or expected to be taken in our tax returns. As of December 31, 2017, the amount of unrecognized tax benefits for financial reporting purposes, but taken or expected to be taken in our tax returns, was €10.8 million, of which €5.2 million 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 10 to our combined financial statements.

Management and Principal Shareholder

The managing director of UPC Holding is Liberty Global Management B.V., which is also an indirect subsidiary of Liberty Global. The managing director of UPC Slovakia Holding I B.V. is Liberty Global Europe Management B.V. The managing director is authorized to conduct the day to day business of the issuer and its subsidiaries within the governance of Liberty Global and its subsidiaries.