UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-Q

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

For the quarterly period ended June 30, 2022

OR

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

For the transition period from to

Commission file number 001-35961

Liberty Global plc
(Exact name of Registrant as specified in its charter)

England and Wales	**98-1112770**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
Griffin House **161 Hammersmith Rd** **London** **United Kingdom**	**W6 8BS**
(Address of principal executive offices)	*(Zip Code)*

Registrant's telephone number, including area code:
+44.208.483.6449 or 303.220.6600

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Class A ordinary shares	LBTYA	Nasdaq Global Select Market
Class B ordinary shares	LBTYB	Nasdaq Global Select Market
Class C ordinary shares	LBTYK	Nasdaq Global Select Market

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large Accelerated Filer ☑ Accelerated Filer ☐ Non-Accelerated Filer ☐

Smaller Reporting Company ☐ Emerging Growth Company ☐

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

Indicate by check mark whether the registrant is a shell company as defined in Rule 12b-2 of the Exchange Act. Yes ☐ No ☑

The number of outstanding ordinary shares of Liberty Global plc as of July 18, 2022 was: 173,362,325 class A ordinary shares, 12,994,000 class B ordinary shares and 298,437,339 class C ordinary shares.

LIBERTY GLOBAL PLC

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LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED BALANCE SHEETS
(unaudited)

	June 30, 2022	December 31, 2021
	in millions	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 2,391.1	$ 910.6
Trade receivables, net	767.6	907.3
Short-term investments (measured at fair value on a recurring basis) (note 5)	1,527.0	2,269.6
Current assets of discontinued operations (note 4)	—	925.0
Other current assets (notes 3, 5 and 6)	918.8	928.0
Total current assets	5,604.5	5,940.5
Investments and related notes receivable (including $2,296.2 million and $2,757.8 million, respectively, measured at fair value on a recurring basis) (note 5)	17,715.2	19,703.0
Property and equipment, net (notes 8 and 10)	6,325.0	6,981.5
Goodwill (note 8)	8,997.5	9,523.4
Intangible assets subject to amortization, net (note 8)	2,017.5	2,342.5
Other assets, net (notes 3, 4, 6 and 10)	3,499.9	2,426.1
Total assets	$ 44,159.6	$ 46,917.0

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED BALANCE SHEETS — (Continued)
(unaudited)

	June 30, 2022	December 31, 2021
	in millions	
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 513.4	$ 613.4
Deferred revenue (note 3)	316.8	274.7
Current portion of debt and finance lease obligations (notes 9 and 10)	764.8	850.3
Accrued capital expenditures	210.8	257.7
Accrued income taxes (note 11)	149.8	236.6
Derivative instruments (note 6)	207.9	221.8
Current liabilities of discontinued operations (note 4)	—	201.3
Other accrued and current liabilities (notes 4 and 10)	1,422.8	1,429.0
Total current liabilities	3,586.3	4,084.8
Long-term debt and finance lease obligations (notes 9 and 10)	12,483.6	13,974.8
Long-term operating lease liabilities (notes 4 and 10)	1,644.4	1,226.1
Other long-term liabilities (notes 3 and 6)	1,639.7	2,033.3
Total liabilities	19,354.0	21,319.0
Commitments and contingencies (notes 6, 9, 10, 11 and 15)		
Equity (note 12):		
Liberty Global shareholders:		
Class A ordinary shares, $0.01 nominal value. Issued and outstanding 174,844,779 shares and 174,310,558 shares, respectively	1.8	1.8
Class B ordinary shares, $0.01 nominal value. Issued and outstanding 12,994,000 shares and 12,930,839 shares, respectively	0.1	0.1
Class C ordinary shares, $0.01 nominal value. Issued and outstanding 302,310,584 shares and 340,114,729 shares, respectively	3.0	3.4
Additional paid-in capital	2,851.1	3,893.0
Accumulated earnings	21,969.4	18,144.5
Accumulated other comprehensive earnings (loss), net of taxes	(49.3)	3,892.2
Treasury shares, at cost	(0.1)	(0.1)
Total Liberty Global shareholders	24,776.0	25,934.9
Noncontrolling interests	29.6	(336.9)
Total equity	24,805.6	25,598.0
Total liabilities and equity	$ 44,159.6	$ 46,917.0

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2022	**2021**	**2022**	**2021**
	in millions, except per share amounts			
Revenue (notes 3, 4, 5 and 16)	$ 1,754.2	$ 2,989.2	$ 3,607.5	$ 6,489.1
Operating costs and expenses (exclusive of depreciation and amortization, shown separately below):				
Programming and other direct costs of services	480.6	843.9	1,017.4	1,923.3
Other operating (note 13)	267.3	437.4	540.5	946.1
Selling, general and administrative (**SG&A**) (note 13)	405.8	608.6	816.2	1,267.6
Depreciation and amortization	517.7	555.3	1,082.4	1,162.5
Impairment, restructuring and other operating items, net	58.3	6.8	67.7	51.2
	1,729.7	2,452.0	3,524.2	5,350.7
Operating income	24.5	537.2	83.3	1,138.4
Non-operating income (expense):				
Interest expense	(132.9)	(272.5)	(267.1)	(607.2)
Realized and unrealized gains (losses) on derivative instruments, net (note 6)	613.7	(303.1)	1,122.2	508.1
Foreign currency transaction gains, net	1,148.7	131.4	1,723.7	435.2
Realized and unrealized gains (losses) due to changes in fair values of certain investments, net (notes 5 and 7)	(112.0)	288.1	(205.6)	482.7
Gains (losses) on debt extinguishment, net (note 9)	2.8	(90.6)	2.8	(90.6)
Share of results of affiliates, net (note 5)	81.1	(8.1)	311.6	(6.4)
Gain on Telenet Tower Sale (note 4)	693.3	—	693.3	—
Gain on U.K. JV Transaction (note 4)	—	11,138.0	—	11,138.0
Other income, net	26.6	7.3	38.5	17.4
	2,321.3	10,890.5	3,419.4	11,877.2
Earnings from continuing operations before income taxes	2,345.8	11,427.7	3,502.7	13,015.6
Income tax expense (note 11)	(63.6)	(276.8)	(144.8)	(442.0)
Earnings from continuing operations	2,282.2	11,150.9	3,357.9	12,573.6
Discontinued operations (note 4):				
Earnings from discontinued operations, net of taxes	—	23.6	34.6	41.2
Gain on disposal of discontinued operations, net of taxes	848.9	—	848.9	—
	848.9	23.6	883.5	41.2
Net earnings	3,131.1	11,174.5	4,241.4	12,614.8
Net earnings attributable to noncontrolling interests	(344.5)	(46.3)	(416.5)	(101.2)
Net earnings attributable to Liberty Global shareholders	$ 2,786.6	$ 11,128.2	$ 3,824.9	$ 12,513.6

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS — (Continued)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions, except per share amounts			
Basic earnings attributable to Liberty Global shareholders per share (note 14):				
Continuing operations	$ 3.87	$ 19.94	$ 5.76	$ 22.04
Discontinued operations	1.69	0.04	1.73	0.07
	$ 5.56	$ 19.98	$ 7.49	$ 22.11
Diluted earnings attributable to Liberty Global shareholders per share (note 14):				
Continuing operations	$ 3.80	$ 19.51	$ 5.64	$ 21.62
Discontinued operations	1.67	0.04	1.70	0.07
	$ 5.47	$ 19.55	$ 7.34	$ 21.69

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS (LOSS)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Net earnings	$ 3,131.1	$ 11,174.5	$ 4,241.4	$ 12,614.8
Other comprehensive earnings (loss), net of taxes:				
Continuing operations:				
Foreign currency translation adjustments	(2,722.9)	998.4	(3,908.2)	46.8
Reclassification adjustment included in net earnings (note 4)	(1.2)	1,248.8	(2.2)	1,248.8
Pension-related adjustments and other	19.1	3.4	21.1	3.3
Other comprehensive earnings (loss) from continuing operations	(2,705.0)	2,250.6	(3,889.3)	1,298.9
Other comprehensive earnings (loss) from discontinued operations (note 4)	(10.9)	27.0	(44.4)	(18.1)
Other comprehensive earnings (loss)	(2,715.9)	2,277.6	(3,933.7)	1,280.8
Comprehensive earnings	415.2	13,452.1	307.7	13,895.6
Comprehensive earnings attributable to noncontrolling interests	(351.8)	(47.6)	(424.3)	(102.5)
Comprehensive earnings (loss) attributable to Liberty Global shareholders	$ 63.4	$ 13,404.5	$ (116.6)	$ 13,793.1

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY
(unaudited)

	Liberty Global shareholders								Non-controlling interests	Total equity
	Ordinary shares			Additional paid-in capital	Accumulated earnings	Accumulated other comprehensive earnings, net of taxes	Treasury shares, at cost	Total Liberty Global shareholders		
	Class A	Class B	Class C							
	in millions									
Balance at January 1, 2021	$ 1.8	$ 0.1	$ 3.9	$ 5,271.7	$ 4,692.1	$ 3,693.1	$ (0.1)	$ 13,662.6	$ (364.2)	$ 13,298.4
Net earnings	—	—	—	—	1,385.4	—	—	1,385.4	54.9	1,440.3
Other comprehensive loss, net of taxes	—	—	—	—	—	(996.8)	—	(996.8)	—	(996.8)
Repurchases and cancellations of Liberty Global ordinary shares (note 12)	—	—	(0.2)	(323.2)	—	—	—	(323.4)	—	(323.4)
Share-based compensation (note 13)	—	—	—	49.4	—	—	—	49.4	—	49.4
Adjustments due to changes in subsidiaries' equity and other, net	—	—	—	18.8	—	—	—	18.8	1.4	20.2
Balance at March 31, 2021	1.8	0.1	3.7	5,016.7	6,077.5	2,696.3	(0.1)	13,796.0	(307.9)	13,488.1
Net earnings	—	—	—	—	11,128.2	—	—	11,128.2	46.3	11,174.5
Other comprehensive earnings, net of taxes	—	—	—	—	—	2,276.3	—	2,276.3	1.3	2,277.6
Repurchases and cancellations of Liberty Global ordinary shares (note 12)	—	—	—	(345.2)	—	—	—	(345.2)	—	(345.2)
Share-based compensation (note 13)	—	—	—	74.3	—	—	—	74.3	—	74.3
Adjustments due to changes in subsidiaries' equity and other, net	—	—	—	(47.5)	—	—	—	(47.5)	(71.8)	(119.3)
Balance at June 30, 2021	$ 1.8	$ 0.1	$ 3.7	$ 4,698.3	$ 17,205.7	$ 4,972.6	$ (0.1)	$ 26,882.1	$ (332.1)	$ 26,550.0

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

CONDENSED CONSOLIDATED STATEMENTS OF EQUITY — (Continued)
(unaudited)

	Liberty Global shareholders									
	Ordinary shares									
	Class A	Class B	Class C	Additional paid-in capital	Accumulated earnings	Accumulated other comprehensive earnings, net of taxes	Treasury shares, at cost	Total Liberty Global shareholders	Non-controlling interests	Total equity
	in millions									
Balance at January 1, 2022	$ 1.8	$ 0.1	$ 3.4	$ 3,893.0	$ 18,144.5	$ 3,892.2	$ (0.1)	$ 25,934.9	$ (336.9)	$ 25,598.0
Net earnings	—	—	—	—	1,038.3	—	—	1,038.3	72.0	1,110.3
Other comprehensive loss, net of taxes	—	—	—	—	—	(1,218.3)	—	(1,218.3)	0.5	(1,217.8)
Repurchases and cancellations of Liberty Global ordinary shares (note 12)	—	—	(0.2)	(495.9)	—	—	—	(496.1)	—	(496.1)
Share-based compensation (note 13)	—	—	—	50.5	—	—	—	50.5	—	50.5
Repurchases by Telenet of its outstanding shares	—	—	—	(28.0)	—	—	—	(28.0)	3.1	(24.9)
Adjustments due to changes in subsidiaries' equity and other, net	—	—	—	(13.5)	—	—	—	(13.5)	0.6	(12.9)
Balance at March 31, 2022	1.8	0.1	3.2	3,406.1	19,182.8	2,673.9	(0.1)	25,267.8	(260.7)	25,007.1
Net earnings	—	—	—	—	2,786.6	—	—	2,786.6	344.5	3,131.1
Other comprehensive loss, net of taxes	—	—	—	—	—	(2,723.2)	—	(2,723.2)	7.3	(2,715.9)
Repurchases and cancellations of Liberty Global ordinary shares (note 12)	—	—	(0.2)	(565.7)	—	—	—	(565.9)	—	(565.9)
Distributions by subsidiaries to noncontrolling interest owners (note 12)	—	—	—	—	—	—	—	—	(64.8)	(64.8)
Share-based compensation (note 13)	—	—	—	40.0	—	—	—	40.0	—	40.0
Adjustments due to changes in subsidiaries' equity and other, net	—	—	—	(29.3)	—	—	—	(29.3)	3.3	(26.0)
Balance at June 30, 2022	$ 1.8	$ 0.1	$ 3.0	$ 2,851.1	$ 21,969.4	$ (49.3)	$ (0.1)	$ 24,776.0	$ 29.6	$ 24,805.6

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	Six months ended June 30,	
	2022	2021
	in millions	
Cash flows from operating activities:		
Net earnings	$ 4,241.4	$ 12,614.8
Earnings from discontinued operations	883.5	41.2
Earnings from continuing operations	3,357.9	12,573.6
Adjustments to reconcile earnings from continuing operations to net cash provided by operating activities of continuing operations:		
Share-based compensation expense	100.7	163.2
Depreciation and amortization	1,082.4	1,162.5
Impairment, restructuring and other operating items, net	67.7	51.2
Amortization of deferred financing costs and non-cash interest	12.5	19.2
Realized and unrealized gains on derivative instruments, net	(1,122.2)	(508.1)
Foreign currency transaction gains, net	(1,723.7)	(435.2)
Realized and unrealized losses (gains) due to changes in fair values of certain investments, net	205.6	(482.7)
Losses (gains) on debt extinguishment, net	(2.8)	90.6
Share of results of affiliates, net	(311.6)	6.4
Deferred income tax expense	67.8	365.3
Gain on Telenet Tower Sale	(693.3)	—
Gain on U.K. JV Transaction	—	(11,138.0)
Changes in operating assets and liabilities, net of the effects of acquisitions and dispositions	27.4	(154.0)
Dividends received from the VMO2 JV	152.2	—
Dividends received from the VodafoneZiggo JV	142.4	136.8
Net cash provided by operating activities of continuing operations	1,363.0	1,850.8
Net cash provided by operating activities of discontinued operations	51.1	94.3
Net cash provided by operating activities	$ 1,414.1	$ 1,945.1

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS — (Continued)
(unaudited)

	Six months ended June 30,	
	2022	2021
	in millions	
Cash flows from investing activities:		
Cash received from the sale of investments	$ 4,965.3	$ 2,979.7
Cash paid for investments	(4,107.4)	(4,055.8)
Cash received in connection with the sale of UPC Poland	1,568.1	—
Cash received in connection with the Telenet Tower Sale	779.9	—
Capital expenditures, net	(634.2)	(842.4)
Cash and restricted cash contributed to the VMO2 JV in connection with the U.K. JV Transaction	—	(3,424.0)
Net cash received in connection with the U.K. JV Transaction	—	52.0
Other investing activities, net	9.6	(116.7)
Net cash provided (used) by investing activities of continuing operations	2,581.3	(5,407.2)
Net cash used by investing activities of discontinued operations	(15.6)	(26.2)
Net cash provided (used) by investing activities	2,565.7	(5,433.4)
Cash flows from financing activities:		
Borrowings of debt	—	2,570.7
Operating-related vendor financing additions	231.3	1,474.7
Repayments and repurchases of debt and finance lease obligations:		
Debt (excluding vendor financing)	(972.4)	(1,720.1)
Principal payments on operating-related vendor financing	(319.1)	(1,143.9)
Principal payments on capital-related vendor financing	(78.5)	(689.6)
Principal payments on finance leases	(31.1)	(39.4)
Repurchases of Liberty Global ordinary shares	(1,042.0)	(657.3)
Distributions by subsidiaries to noncontrolling interest owners	(61.1)	(70.6)
Net cash received (paid) related to derivative instruments	(50.0)	22.9
Payment of financing costs and debt premiums	(28.1)	(22.5)
Repurchases by Telenet of its outstanding shares	(25.7)	—
Other financing activities, net	(55.3)	(72.2)
Net cash used by financing activities of continuing operations	(2,432.0)	(347.3)
Net cash used by financing activities of discontinued operations	(2.6)	(14.9)
Net cash used by financing activities	$ (2,434.6)	$ (362.2)

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

LIBERTY GLOBAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS — (Continued)
(unaudited)

	Six months ended June 30,			
	2022		2021	
	in millions			
Effect of exchange rate changes on cash and cash equivalents and restricted cash:				
Continuing operations	$	(65.3)	$	14.5
Discontinued operations		—		—
Total		(65.3)		14.5
Net increase (decrease) in cash and cash equivalents and restricted cash:				
Continuing operations		1,447.0		(3,889.2)
Discontinued operations		32.9		53.2
Total		1,479.9		(3,836.0)
Cash and cash equivalents and restricted cash:				
Beginning of period		917.3		4,717.3
Net increase (decrease)		1,479.9		(3,836.0)
End of period	$	2,397.2	$	881.3
Cash paid for interest:				
Continuing operations	$	261.0	$	613.0
Discontinued operations		0.3		0.9
Total	$	261.3	$	613.9
Net cash paid for taxes:				
Continuing operations	$	148.0	$	147.3
Discontinued operations		7.4		13.2
Total	$	155.4	$	160.5
Details of end of period cash and cash equivalents and restricted cash:				
Cash and cash equivalents	$	2,391.1	$	874.3
Restricted cash included in other current assets and other assets, net		6.1		7.0
Total cash and cash equivalents and restricted cash	$	2,397.2	$	881.3

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

(1) Basis of Presentation

Liberty Global plc (**Liberty Global**) is a public limited company organized under the laws of England and Wales. In these notes, the terms "we," "our," "our company" and "us" may refer, as the context requires, to Liberty Global or collectively to Liberty Global and its subsidiaries. We are an international provider of broadband internet, video, fixed-line telephony and mobile communications services to residential customers and businesses in Europe.

Our continuing operations comprise businesses that provide residential and business-to-business (**B2B**) communications services in (i) Switzerland and Slovakia through certain wholly-owned subsidiaries that we collectively refer to as "**UPC Holding**", (ii) Belgium through Telenet Group Holding N.V. (**Telenet**), a 61.1%-owned subsidiary, and (iii) Ireland through another wholly-owned subsidiary (**VM Ireland**). In addition, we own 50% noncontrolling interests in (a) a 50:50 joint venture (the **VMO2 JV**) with Telefónica SA (**Telefónica**), which provides residential and B2B communications services in the United Kingdom (**U.K.**), and (b) a 50:50 joint venture (the **VodafoneZiggo JV**) with Vodafone Group plc (**Vodafone**), which provides residential and B2B communications services in the Netherlands.

Through March 31, 2022, we provided residential and B2B communications services in Poland through UPC Holding. On April 1, 2022, we completed the sale of our operations in Poland. Accordingly, in these condensed consolidated financial statements, our operations in Poland are reflected as discontinued operations for all applicable periods. For additional information, see note 4.

Through May 31, 2021, our consolidated operations also included residential and B2B communications services provided to customers in the U.K. through Virgin Media Inc. (**Virgin Media**). On June 1, 2021, we contributed the U.K. JV Entities (as defined in note 4) to the VMO2 JV and began accounting for our 50% interest in the VMO2 JV as an equity method investment. For additional information, see note 4.

Our unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (**GAAP**) and with the instructions to Form 10-Q and Article 10 of Regulation S-X for interim financial information. Accordingly, these financial statements do not include all of the information required by GAAP or Securities and Exchange Commission rules and regulations for complete financial statements. In the opinion of management, these financial statements reflect all adjustments (consisting of normal recurring adjustments) necessary for a fair presentation of the results of operations for the interim periods presented. The results of operations for any interim period are not necessarily indicative of results for the full year. These unaudited condensed consolidated financial statements should be read in conjunction with our 2021 consolidated financial statements and notes thereto included in our 2021 Annual Report on Form 10-K, as amended (our **10-K**).

The preparation of financial statements in conformity with 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, certain components of revenue, programming and copyright costs, deferred income taxes and related valuation allowances, loss contingencies, fair value measurements, impairment assessments, capitalization of internal costs associated with construction and installation activities, lease terms, useful lives of long-lived assets, share-based compensation and actuarial liabilities associated with certain benefit plans. Actual results could differ from those estimates.

Unless otherwise indicated, the amounts presented in these notes relate only to our continuing operations, and ownership percentages and convenience translations into United States (**U.S.**) dollars are calculated as of June 30, 2022.

(2) Recent Accounting Pronouncements

ASU 2021-08

In October 2021, the Financial Accounting Standards Board (**FASB**) issued Accounting Standards Update (**ASU**) No. 2021-08, *Accounting for Contract Assets and Contract Liabilities from Contracts with Customers* (**ASU 2021-08**), which requires contract assets and contract liabilities acquired in a business combination to be recognized and measured in accordance with Topic 606, *Revenue from Contracts with Customers*, as if the acquirer had originated the contracts. ASU 2021-08 is effective for annual reporting periods beginning after December 15, 2022, including interim periods within those fiscal years, with early adoption permitted. The main impact of the adoption of ASU 2021-08 will be the recognition of contract assets and contract liabilities in future business combinations at amounts generally consistent with the carrying value of such assets and liabilities of the acquiree immediately before the acquisition date.

ASU 2020-04

In April 2020, the FASB issued ASU No. 2020-04, *Facilitation of the Effects of Reference Rate Reform on Financial Reporting* (**ASU 2020-04**), which provides optional expedients and exceptions for contract modifications, subject to meeting certain criteria, that reference the London Interbank Offered Rate (**LIBOR**) or another reference rate expected to be discontinued. In accordance with the optional expedients in ASU 2020-04, we have modified certain of our debt agreements during 2022 to replace LIBOR with another reference rate and applied the practical expedient to account for the modification as a continuation of the existing contract. The use of optional expedients in ASU 2020-04 has not had a significant impact on our consolidated financial statements to date. For additional information regarding our debt, see note 9.

(3) Revenue Recognition and Related Costs

Contract Balances

The timing of our recognition of revenue may differ from the timing of invoicing our customers. We record a trade receivable when we have transferred goods or services to a customer but have not yet received payment. Our trade receivables are reported net of an allowance for doubtful accounts. Such allowance aggregated $39.0 million and $42.0 million at June 30, 2022 and December 31, 2021, respectively.

If we transfer goods or services to a customer but do not have an unconditional right to payment, we record a contract asset. Contract assets typically arise from the uniform recognition of introductory promotional discounts over the contract period and accrued revenue for handset sales. Our contract assets were $27.7 million and $29.7 million as of June 30, 2022 and December 31, 2021, respectively. The current and long-term portions of our contract asset balances are included within other current assets and other assets, net, respectively, on our condensed consolidated balance sheets.

We record deferred revenue when we receive payment prior to transferring goods or services to a customer. We primarily defer revenue for (i) installation and other upfront services and (ii) other services that are invoiced prior to when services are provided. Our deferred revenue balances were $324.7 million and $286.5 million as of June 30, 2022 and December 31, 2021, respectively. The increase in deferred revenue for the six months ended June 30, 2022 is primarily due to the net effect of (a) the impact of additions during the period and (b) the recognition of $181.5 million of revenue that was included in our deferred revenue balance at December 31, 2021. The long-term portions of our deferred revenue balances are included within other long-term liabilities on our condensed consolidated balance sheets.

Contract Costs

Our aggregate assets associated with incremental costs to obtain and fulfill our contracts were $65.7 million and $63.4 million at June 30, 2022 and December 31, 2021, respectively. The current and long-term portions of our assets related to contract costs are included within other current assets and other assets, net, respectively, on our condensed consolidated balance sheets. We amortized $4.2 million and $8.6 million during the three and six months ended June 30, 2022, respectively, and $24.8 million and $71.8 million during the three and six months ended June 30, 2021, respectively, to operating costs and expenses related to these assets.

Unsatisfied Performance Obligations

A large portion of our revenue is derived from customers who are not subject to contracts. Revenue from customers who are subject to contracts is generally recognized over the term of such contracts, which is typically 12 months for our residential service contracts, one to three years for our mobile service contracts and one to five years for our B2B service contracts.

(4) Acquisitions and Dispositions

2022 Dispositions

UPC Poland. On April 1, 2022, we completed the sale of 100% of our operations in Poland (**UPC Poland**) to a subsidiary of iliad S.A. After considering debt and working capital adjustments (including cash disposed), we received net cash proceeds of Polish zloty 6,590.4 million ($1,568.1 million at the transaction date). A portion of the net proceeds from the sale, after reflecting the impact of derivative settlements, was used to repurchase certain of UPC Holding's outstanding indebtedness, with the remainder available for general corporate purposes. For additional information regarding these financing transactions, see note 9.

In connection with the sale of UPC Poland, we recognized a gain of $848.9 million, which includes a cumulative foreign currency translation gain of $10.9 million. No income taxes were required to be provided on this gain.

We have agreed to provide certain transitional services for a period of up to five years, depending on the service. These services will principally comprise network and information technology-related functions. The annual charges will depend on the actual level of services required by the purchaser. During the three months ended June 30, 2022, we recorded revenue of $8.8 million associated with these transitional services.

UPC Poland is presented as a discontinued operation in our condensed consolidated financial statements for all applicable periods. Effective with the signing of the sale and purchase agreement on September 22, 2021, we ceased to depreciate or amortize the associated long-lived assets. Our operations in Poland were held through UPC Holding prior to the disposal date. No debt, interest or derivative instruments of the UPC Holding borrowing group have been allocated to discontinued operations. Prior to being presented as a discontinued operation, the operations of UPC Poland were included in our former "*Central and Eastern Europe*" reportable segment.

The carrying amounts of the major classes of assets and liabilities of UPC Poland as of December 31, 2021 are summarized in the following table (in millions):

Assets:		
Current assets	$	23.4
Property and equipment, net		406.8
Goodwill		464.7
Other assets, net		30.1
Total assets	$	925.0
Liabilities:		
Current portion of debt and finance lease obligations	$	42.7
Other accrued and current liabilities		97.3
Long-term debt and finance lease obligations		5.0
Other long-term liabilities		56.3
Total liabilities	$	201.3

The operating results of UPC Poland for the periods indicated are summarized in the following table. These amounts exclude intercompany revenue and expenses that are eliminated within our condensed consolidated statements of operations.

	Three months ended June 30, 2021	Six months ended June 30, 2022 (a)	Six months ended June 30, 2021
	in millions		
Revenue	$ 116.3	$ 109.5	$ 231.7
Operating income	$ 28.3	$ 45.0	$ 52.4
Earnings before income taxes	$ 29.6	$ 43.9	$ 52.5
Income tax expense	(6.0)	(9.3)	(11.3)
Net earnings attributable to Liberty Global shareholders	$ 23.6	$ 34.6	$ 41.2

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(a) Includes the operating results of UPC Poland from January 1, 2022 through April 1, 2022, the date UPC Poland was sold.

Telenet Tower Sale. On June 1, 2022, Telenet completed the sale of substantially all of their passive infrastructure and tower assets to DigitalBridge Investments LLC (**DigitalBridge**) (the **Telenet Tower Sale**). After considering working capital adjustments, we received net cash proceeds of €733.0 million ($779.9 million at the transaction date). Effective with the signing of the sale and purchase agreement on March 25, 2022, we began accounting for the associated assets and liabilities as held for sale and, accordingly, we ceased to depreciate or amortize these long-lived assets.

In connection with the completion of the Telenet Tower Sale, we recognized a gain of $693.3 million. No income taxes were required to be provided on this gain.

As part of the Telenet Tower Sale, Telenet entered into a master lease agreement to lease back the passive infrastructure and tower assets from DigitalBridge for an initial period of 15 years (the **Telenet Tower Lease Agreement**). In connection with the Telenet Tower Lease Agreement, we recorded non-cash additions to our operating lease right-of-use (**ROU**) assets of $615.1 million and a corresponding increase to our operating lease liabilities of the same amount.

In addition, as part of the Telenet Tower Lease Agreement, Telenet has also committed to lease back 475 build-to-suit sites over the term of the lease. The total estimated future payments for the build-to-suit sites over the term of the lease are $102.2 million (representing the U.S. dollar equivalents based on June 30, 2022 exchange rates), the majority of which are due after 2027. Telenet will act as an agent over the construction of future towers on the build-to-suit sites.

2021 Disposition

U.K. JV Transaction. On June 1, 2021, pursuant to a Contribution Agreement dated May 7, 2020 (the **Contribution Agreement**) with, among others, Telefónica, (i) we contributed Virgin Media's U.K. operations and certain other Liberty Global subsidiaries (together, the **U.K. JV Entities**) to the VMO2 JV and (ii) Telefónica contributed its U.K. mobile business to the VMO2 JV, creating a nationwide integrated communications provider (herein referred to as the "**U.K. JV Transaction**"). We account for our 50% interest in the VMO2 JV as an equity method investment, as further described in note 5.

In connection with the U.K. JV Transaction, we received net cash of $52.0 million**,** which includes (i) an equalization payment, (ii) our share of the proceeds associated with related recapitalization financing transactions completed by the VMO2 JV and (iii) $44.5 million of cash paid by Liberty Global to settle certain centrally-held vendor financing obligations associated with the VMO2 JV. In connection with the U.K. JV Transaction, we recognized a pre-tax gain of $11.1 billion, net of the recognition of a cumulative foreign currency translation loss of $1.2 billion. This gain was calculated by deducting the carrying value of the U.K. JV Entities (including the related foreign currency translation loss) from the sum of (i) the fair value assigned to our 50% interest in the VMO2 JV and (ii) the net cash received pursuant to the equalization payment and the recapitalization transactions described above. For information regarding our approach to the valuation of our interest in the VMO2 JV, see note 7.

A summary of the fair value of the assets and liabilities of the VMO2 JV at the June 1, 2021 transaction date is presented in the following table. The opening balance sheet presented below reflects the final purchase price allocation (in millions):

Current assets	$ 4,186.7
Property and equipment, net	12,523.2
Goodwill	29,502.7
Intangible assets subject to amortization, net	13,274.6
Other assets, net	4,116.2
Current portion of debt and finance lease obligations	(4,352.5)
Other accrued and current liabilities	(5,780.8)
Long-term debt and finance lease obligations	(21,879.2)
Other long-term liabilities	(2,170.9)
Total fair value of the net assets of the VMO2 JV	$ 29,420.0

Our condensed consolidated statements of operations for the three and six months ended June 30, 2021 include aggregate earnings from continuing operations before income taxes attributable to the U.K. JV Entities of $168.9 million and $890.5 million, respectively.

Effective with the signing of the Contribution Agreement, we began accounting for the U.K. JV Entities as held for sale. Accordingly, we ceased to depreciate or amortize the long-lived assets of the U.K. JV Entities. However, the U.K. JV Entities were not presented as discontinued operations as the U.K. JV Transaction did not represent a strategic shift as defined by GAAP.

(5) Investments

The details of our investments are set forth below:

Accounting Method	June 30, 2022	December 31, 2021	Ownership (a)
	in millions		%
Equity (b):			
Long-term:			
VMO2 JV	$ 12,477.2	$ 13,774.7	50.0
VodafoneZiggo JV (c)	2,333.9	2,572.4	50.0
Atlas Edge Joint Venture (**Atlas Edge JV**)	143.3	163.7	50.0
All3Media Group (**All3Media**)	142.4	143.7	50.0
Formula E Holdings Ltd (**Formula E**)	104.6	115.9	35.9
Other	217.6	174.8	
Total — equity	15,419.0	16,945.2	
Fair value:			
Short-term:			
Separately-managed accounts (**SMAs**) (d)	1,527.0	2,269.6	
Long-term:			
Televisa Univision, Inc. (**Televisa Univision**) (e)	385.5	385.5	6.3
ITV plc (**ITV**)	316.7	596.3	9.9
SMAs (d)	297.2	531.7	
Lacework Inc. (**Lacework**)	269.1	269.1	3.3
Plume Design, Inc. (**Plume**)	188.8	188.8	11.5
EdgeConneX Inc. (**EdgeConneX**)	173.1	138.7	5.1
Pax8 Inc. (**Pax8**)	99.0	14.7	5.9
Aviatrix Systems, Inc.	78.2	78.2	3.8
CANAL+ Polska S.A.	63.5	70.8	17.0
Lions Gate Entertainment Corp (**Lionsgate**)	59.8	105.9	2.9
Other	365.3	378.1	
Total — fair value	3,823.2	5,027.4	
Total investments (f)	$ 19,242.2	$ 21,972.6	
Short-term investments	$ 1,527.0	$ 2,269.6	
Long-term investments	$ 17,715.2	$ 19,703.0	

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(a) Our ownership percentages are determined based on our legal ownership as of the most recent balance sheet date or are estimated based on the number of shares we own and the most recent publicly-available information.

(b) Our equity method investments are originally recorded at cost and are adjusted to recognize our share of net earnings or losses of the affiliates as they occur rather than as dividends or other distributions are received, with our recognition of losses generally limited to the extent of our investment in, and loans and commitments to, the investee. Accordingly, the carrying values of our equity method investments may not equal the respective fair values. At June 30, 2022 and December 31, 2021, the aggregate carrying amounts of our equity method investments exceeded our proportionate share of the respective investee's net assets by $1,179.2 million and $1,236.0 million, respectively, which primarily includes amounts associated with the VodafoneZiggo JV Receivables, as defined below, and amounts we are owed under a long-term note receivable from All3Media.

(c) Amounts include certain notes receivable due from a subsidiary of the VodafoneZiggo JV to a subsidiary of Liberty Global comprising (i) a euro-denominated note receivable with a principal amount of $733.8 million and $797.1 million, respectively (the **VodafoneZiggo JV Receivable I**), and (ii) a euro-denominated note receivable with a principal amount of $217.9 million and $236.7 million, respectively (the **VodafoneZiggo JV Receivable II** and, together with the VodafoneZiggo JV Receivable I, the **VodafoneZiggo JV Receivables**). The VodafoneZiggo JV Receivables bear interest at 5.55% and have a final maturity date of December 31, 2030. During the six months ended June 30, 2022, interest accrued on the VodafoneZiggo JV Receivables was $27.8 million, all of which has been cash settled.

(d) Represents investments held under SMAs, which are maintained by investment managers acting as agents on our behalf. We classify, measure and report these investments, the composition of which may change from time to time, based on the underlying nature and characteristics of each security held under the SMAs. As of June 30, 2022, all of our investments held under SMAs were classified as available-for-sale debt securities. At June 30, 2022 and December 31, 2021, interest accrued on our debt securities, which is included in other current assets on our condensed consolidated balance sheets, was $5.0 million and $5.1 million, respectively.

(e) At June 30, 2022, the fair value of our investment in Televisa Univision reflects the merger of Univision Holdings Inc. and Grupo Televisa, S.A.B., which was completed during the first quarter of 2022.

(f) The purchase and sale of investments are presented on a gross basis in our condensed consolidated statements of cash flows, including amounts associated with SMAs.

Equity Method Investments

The following table sets forth the details of our share of results of affiliates, net:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
VMO2 JV (a)	$ 30.8	$ (0.3)	$ 217.9	$ (0.3)
VodafoneZiggo JV (b)	83.4	4.7	132.0	9.4
All3Media	(12.2)	(5.8)	(16.9)	(14.8)
Atlas Edge JV	(5.1)	—	(8.1)	—
Formula E	(9.6)	(4.3)	(1.7)	4.4
Other, net	(6.2)	(2.4)	(11.6)	(5.1)
Total	$ 81.1	$ (8.1)	$ 311.6	$ (6.4)

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(a) Represents (i) our 50% share of the results of operations of the VMO2 JV and (ii) 100% of the share-based compensation expense associated with Liberty Global awards held by VMO2 JV employees who were formerly employees of Liberty Global, as these awards remain our responsibility.

(b) Represents (i) our 50% share of the results of operations of the VodafoneZiggo JV and (ii) 100% of the interest income earned on the VodafoneZiggo JV Receivables.

VMO2 JV

On June 1, 2021, we completed the U.K. JV Transaction. Each of Liberty Global and Telefónica (each a "**U.K. JV Shareholder**") holds 50% of the issued share capital of the VMO2 JV. The U.K. JV Shareholders intend for the VMO2 JV to be funded solely from its net cash flows from operations and third-party financing. We account for our 50% interest in the VMO2 JV as an equity method investment and consider the VMO2 JV to be a related party. For additional information regarding the U.K. JV Transaction, see note 4.

Pursuant to an agreement (the **U.K. JV Framework Agreement**), Liberty Global provides certain services to the VMO2 JV on a transitional or ongoing basis (collectively, the **U.K. JV Services**). The U.K. JV Services provided by Liberty Global consist primarily of (i) technology and other services and (ii) capital-related expenditures for assets that will be used by, or will otherwise benefit, the VMO2 JV. Liberty Global charges both fixed and variable fees to the VMO2 JV for the U.K. JV Services it provides during the term of the U.K. JV Framework Agreement. We recorded revenue related to the U.K. JV Services of $63.9 million and $132.6 million during the three and six months ended June 30, 2022, respectively, and $24.2 million during the month ended June 30, 2021. At June 30, 2022 and December 31, 2021, $27.0 million and $43.3 million, respectively, was due from the VMO2 JV, primarily related to (a) services performed under the U.K. JV Framework Agreement and (b) amounts incurred by Liberty Global for certain equipment and licenses purchased on behalf of the VMO2 JV. Amounts due from the VMO2 JV are periodically cash settled and are included in other current assets on our condensed consolidated balance sheets. In addition, during the six months ended June 30, 2022, we received a dividend distribution from the VMO2 JV of $152.2 million, which was accounted for as a return on capital for purposes of our condensed consolidated statement of cash flows.

The summarized results of operations of the VMO2 JV are set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021 (a)	2022	2021 (a)
	in millions			
Revenue	$ 3,202.6	$ 1,208.5	$ 6,600.6	$ 1,208.5
Earnings (loss) before income taxes	$ 89.1	$ (168.5)	$ 467.7	$ (168.5)
Net earnings (loss)	$ 88.4	$ (34.6)	$ 406.5	$ (34.6)

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(a) Includes the operating results of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

VodafoneZiggo JV

Pursuant to an agreement (the **NL JV Framework Agreement**), Liberty Global provides certain services to the VodafoneZiggo JV (collectively, the **NL JV Services**). The NL JV Services provided by Liberty Global consist primarily of (i) technology and other services and (ii) capital-related expenditures for assets that will be used by, or will otherwise benefit, the VodafoneZiggo JV. Liberty Global charges both fixed and usage-based fees to the VodafoneZiggo JV for the NL JV Services provided during the term of the NL JV Framework Agreement. We recorded revenue from the VodafoneZiggo JV of $57.3 million and $65.1 million during the three months ended June 30, 2022 and 2021, respectively, and $117.3 million and $115.8 million during the six months ended June 30, 2022 and 2021, respectively, primarily related to (a) the NL JV Services and (b) the sale of customer premises equipment at a mark-up. At June 30, 2022 and December 31, 2021, $36.4 million and $62.5 million, respectively, was due from the VodafoneZiggo JV related to the aforementioned transactions. Amounts due from the VodafoneZiggo JV are periodically cash settled and are included in other current assets on our condensed consolidated balance sheets. In addition, during the six months ended June 30, 2022 and 2021, we received dividend distributions from the VodafoneZiggo JV of $142.4 million and $136.8 million, respectively, which were accounted for as returns on capital for purposes of our condensed consolidated statements of cash flows.

The summarized results of operations of the VodafoneZiggo JV are set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Revenue	$ 1,065.6	$ 1,215.3	$ 2,195.6	$ 2,432.3
Earnings (loss) before income taxes	$ 225.7	$ (19.6)	$ 352.7	$ (41.0)
Net earnings (loss)	$ 146.6	$ (15.5)	$ 218.9	$ (31.6)

Fair Value Investments

The following table sets forth the details of our realized and unrealized gains (losses) due to changes in fair value, net:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
ITV	$ (112.2)	$ 29.7	$ (279.6)	$ 109.5
Pax8	—	—	79.3	—
Lionsgate	(43.6)	36.8	(46.1)	57.6
EdgeConneX	29.0	4.7	42.5	17.8
Skillz Inc. (**Skillz**)	(7.6)	21.3	(33.7)	21.3
Televisa Univision	21.4	155.4	31.8	155.4
Plume	—	—	—	55.1
Lacework	—	48.8	—	48.8
Other, net (a)	1.0	(8.6)	0.2	17.2
Total	$ (112.0)	$ 288.1	$ (205.6)	$ 482.7

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(a) The 2022 amounts include gains of $11.7 million and $12.0 million for the three and six months ended June 30, 2022, respectively, related to investments that were sold during the second quarter.

Debt Securities

At June 30, 2022 and December 31, 2021, all of our SMAs were composed of debt securities, which are summarized in the following tables:

	June 30, 2022		
	Amortized cost basis	Accumulated unrealized losses	Fair value
	in millions		
Government bonds	$ 510.7	$ (3.5)	$ 507.2
Corporate debt securities	510.5	(7.3)	503.2
Commercial paper	437.9	—	437.9
Certificates of deposit	314.4	(0.4)	314.0
Other debt securities	61.9	—	61.9
Total debt securities	$ 1,835.4	$ (11.2)	$ 1,824.2

	December 31, 2021		
	Amortized cost basis	Accumulated unrealized losses	Fair value
	in millions		
Commercial paper	$ 897.4	$ —	$ 897.4
Corporate debt securities	705.5	(1.6)	703.9
Government bonds	655.9	(3.3)	652.6
Certificates of deposit	355.5	(0.1)	355.4
Other debt securities	192.0	—	192.0
Total debt securities	$ 2,806.3	$ (5.0)	$ 2,801.3

We received proceeds from the sale of debt securities of $2.3 billion and $1.4 billion during the three months ended June 30, 2022 and 2021, respectively, and $4.9 billion and $2.9 billion during the six months ended June 30, 2022 and 2021, respectively, the majority of which were reinvested in new debt securities held under SMAs. The sale of debt securities resulted in realized net losses of $2.7 million and $0.3 million during the three months ended June 30, 2022 and 2021, respectively, and $6.1 million and $1.6 million during the six months ended June 30, 2022 and 2021, respectively.

The fair values of our debt securities as of June 30, 2022 by contractual maturity are shown below (in millions):

Due in one year or less	$ 1,527.0
Due in one to five years	295.4
Due in five to ten years	1.7
Due after ten years	0.1
Total (a)	$ 1,824.2

(a) The weighted average life of our total debt securities was 0.5 years as of June 30, 2022.

(6) Derivative Instruments

In general, we enter into derivative instruments to protect against (i) increases in the interest rates on our variable-rate debt, (ii) foreign currency movements, particularly with respect to borrowings that are denominated in a currency other than the functional currency of the borrowing entity, and (iii) decreases in the market prices of certain publicly traded securities that we own. In this regard, through our subsidiaries, 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 British pound sterling (**£**) and the Swiss franc (**CHF**). Generally, 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 condensed consolidated statements of operations.

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

	June 30, 2022			December 31, 2021		
	Current	Long-term	Total	Current	Long-term	Total
	in millions					
Assets (a):						
Cross-currency and interest rate derivative contracts (b)	$ 188.6	$ 984.9	$ 1,173.5	$ 214.9	$ 164.3	$ 379.2
Equity-related derivative instruments (c)	—	114.1	114.1	—	113.8	113.8
Foreign currency forward and option contracts	8.1	—	8.1	28.4	—	28.4
Other	0.3	—	0.3	1.0	—	1.0
Total	$ 197.0	$ 1,099.0	$ 1,296.0	$ 244.3	$ 278.1	$ 522.4
Liabilities (a):						
Cross-currency and interest rate derivative contracts (b)	$ 199.9	$ 312.8	$ 512.7	$ 208.8	$ 670.2	$ 879.0
Foreign currency forward and option contracts	8.0	—	8.0	13.0	—	13.0
Total	$ 207.9	$ 312.8	$ 520.7	$ 221.8	$ 670.2	$ 892.0

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(a) Our current derivative assets, long-term derivative assets and long-term derivative liabilities are included in other current assets, other assets, net, and other long-term liabilities, respectively, on our condensed consolidated balance sheets. For information regarding certain financing transactions that impacted our derivative instruments, see note 4.

(b) We consider credit risk relating to our and our counterparties' nonperformance in the fair value assessment of our derivative instruments. In all cases, the adjustments take into account offsetting liability or asset positions within each of our subsidiary borrowing groups (as defined and described in note 9). The changes in the credit risk valuation adjustments associated with our cross-currency and interest rate derivative contracts resulted in net gains of $4.8 million and $38.2 million during the three months ended June 30, 2022 and 2021, respectively, and a net gain (loss) of $9.3 million and ($0.8 million) during the six months ended June 30, 2022 and 2021, respectively. These amounts are included in realized and unrealized gains (losses) on derivative instruments, net, in our condensed consolidated statements of operations. For further information regarding our fair value measurements, see note 7.

(c) Our equity-related derivative instruments include warrants on our investment in Plume.

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

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Cross-currency and interest rate derivative contracts	$ 619.0	$ (297.5)	$ 1,091.3	$ 487.1
Foreign currency forward and option contracts	(5.1)	(6.8)	31.3	(4.7)
Equity-related derivative instruments:				
ITV Collar	—	(1.2)	—	(11.8)
Other	0.1	0.2	0.3	35.3
Total equity-related derivative instruments	0.1	(1.0)	0.3	23.5
Other	(0.3)	2.2	(0.7)	2.2
Total	$ 613.7	$ (303.1)	$ 1,122.2	$ 508.1

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

	Six months ended June 30,	
	2022	2021
	in millions	
Operating activities	$ (6.7)	$ (0.4)
Investing activities	40.9	(52.1)
Financing activities	(50.0)	22.9
Total	$ (15.8)	$ (29.6)

Counterparty Credit Risk

We are exposed to the risk that the counterparties to the derivative instruments of our subsidiary borrowing groups 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. At June 30, 2022, our exposure to counterparty credit risk included derivative assets with an aggregate fair value of $779.1 million.

Details of our Derivative Instruments

Cross-currency Derivative Contracts

We generally match the denomination of our subsidiaries' borrowings with the functional currency of the supporting operations or, when it is more cost effective, we 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 June 30, 2022, 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 June 30, 2022:

	Notional amount due from counterparty		Notional amount due to counterparty		Weighted average remaining life
	in millions				in years
UPC Holding	$	250.0	€	220.6	3.3
	$	4,475.0	CHF	4,098.2 (a)	6.0
	€	2,650.0	CHF	2,970.1	3.6
	CHF	740.0	€	701.1	0.5
Telenet	$	3,940.0	€	3,489.6 (a)	4.6
	€	45.2	$	50.0 (b)	2.6

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(a) Includes certain derivative instruments that are "forward-starting," such that the initial exchange occurs at a date subsequent to June 30, 2022. These instruments are typically entered into in order to extend existing hedges without the need to amend existing contracts.

(b) Includes certain derivative instruments that do not involve the exchange of notional amounts at the inception and maturity of the instruments. Accordingly, the only cash flows associated with these derivative instruments are coupon-related payments and receipts.

Interest Rate Swap Contracts

The following table sets forth the total U.S. dollar equivalents of the notional amounts and the related weighted average remaining contractual lives of our interest rate swap contracts at June 30, 2022:

	Pays fixed rate			Receives fixed rate		
	Notional amount		Weighted average remaining life	Notional amount		Weighted average remaining life
	in millions		in years	in millions		in years
UPC Holding	$	5,751.9 (a)	2.8	$	3,345.0	4.2
Telenet	$	2,892.1 (a)	2.8	$	1,364.9	1.3

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(a) Includes forward-starting derivative instruments.

Interest Rate Swap Options

From time to time, we enter into 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. Such contracts typically have a life of no more than three years. At June 30, 2022, the option expiration period on each of our swaptions had expired.

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. The following table sets forth the total U.S. dollar equivalents of the notional amounts and related weighted average remaining contractual lives of our basis swap contracts at June 30, 2022:

	Notional amount due from counterparty	Weighted average remaining life
	in millions	in years
UPC Holding	$ 2,582.0 (a)	0.5
Telenet	$ 2,295.0	0.5

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(a) Includes forward-starting derivative instruments.

Interest Rate Caps, Floors and Collars

From time to time, we enter into interest rate cap, floor and collar agreements. Purchased interest rate caps and collars lock in a maximum interest rate if variable rates rise, but also allow our company to benefit, to a limited extent in the case of collars, from declines in market rates. Purchased interest rate floors protect us from interest rates falling below a certain level, generally to match a floating rate floor on a debt instrument. At June 30, 2022, we had no interest rate collar agreements, and the total U.S. dollar equivalents of the notional amounts of our purchased interest rate caps and floors were $1.2 billion and $7.4 billion, respectively.

Impact of Derivative Instruments on Borrowing Costs

The impact of the derivative instruments that mitigate our foreign currency and interest rate risk, as described above, on our borrowing costs is as follows:

	Increase (decrease) to borrowing costs at June 30, 2022 (a)
UPC Holding	(1.29)%
Telenet	(0.64)%
VM Ireland	0.15 %
Total decrease to borrowing costs	(0.91)%

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(a) Represents the effect of derivative instruments in effect at June 30, 2022 and does not include forward-starting derivative instruments.

Foreign Currency Forwards and Options

Certain of our subsidiaries enter into foreign currency forward and option contracts with respect to non-functional currency exposure, including hedges of the proceeds from the sale of UPC Poland. As of June 30, 2022, the total U.S. dollar equivalent of the notional amounts of our foreign currency forward and option contracts was $559.6 million.

(7) Fair Value Measurements

We use the fair value method to account for (i) certain of our investments and (ii) our derivative instruments. The reported fair values of these investments and derivative instruments as of June 30, 2022 are unlikely to represent the value that will be paid or received upon the ultimate settlement or disposition of these assets and liabilities.

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.

We use a Monte Carlo based approach to incorporate a credit risk valuation adjustment in our fair value measurements to estimate the impact of both our own nonperformance risk and the nonperformance risk of our counterparties. Our 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 acquisition accounting, impairment assessments and the accounting for our initial investment in the VMO2 JV. These nonrecurring valuations include the valuation of reporting units, customer relationships and other intangible assets, property and equipment, the implied value of goodwill and the valuation of our initial investment in the VMO2 JV. The valuation of reporting units and our initial investment in the VMO2 JV are 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, including inputs with respect to revenue growth and Adjusted EBITDA margin (as defined in note 16), and terminal growth rates, 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. The implied value of goodwill is determined by allocating the fair value of a reporting unit to all of the assets and liabilities of that unit as if the reporting unit had been acquired in a business combination, with the residual amount allocated to goodwill. Most of our nonrecurring valuations use significant unobservable inputs and therefore fall under Level 3 of the fair value hierarchy. During the six months ended June 30, 2022, we did not perform any significant nonrecurring fair value measurements. During the six months ended June 30, 2021, we performed a nonrecurring valuation for the purpose of determining the fair value of our initial investment in the VMO2 JV. The weighted average cost of capital used to value our initial investment was 6.9%. For information regarding our investment in the VMO2 JV, see note 5.

For additional information concerning our fair value measurements, see note 9 to the consolidated financial statements included in our 10-K.

A summary of our assets and liabilities that are measured at fair value on a recurring basis is as follows:

		Fair value measurements at June 30, 2022 using:		
Description	**June 30, 2022**	**Quoted prices in active markets for identical assets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
	in millions			
Assets:				
Derivative instruments:				
Cross-currency and interest rate derivative contracts	$ 1,173.5	$ —	$ 1,173.5	$ —
Equity-related derivative instruments	114.1	—	—	114.1
Foreign currency forward and option contracts	8.1	—	8.1	—
Other	0.3	—	0.3	—
Total derivative instruments	1,296.0	—	1,181.9	114.1
Investments:				
SMAs	1,824.2	502.5	1,321.7	—
Other investments	1,999.0	383.3	63.5	1,552.2
Total investments	3,823.2	885.8	1,385.2	1,552.2
Total assets	$ 5,119.2	$ 885.8	$ 2,567.1	$ 1,666.3
Liabilities:				
Derivative instruments:				
Cross-currency and interest rate derivative contracts	$ 512.7	$ —	$ 512.7	$ —
Foreign currency forward and option contracts	8.0	—	8.0	—
Total liabilities	$ 520.7	$ —	$ 520.7	$ —

Description	December 31, 2021	Fair value measurements at December 31, 2021 using: Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		in millions		
Assets:				
Derivative instruments:				
Cross-currency and interest rate derivative contracts	$ 379.2	$ —	$ 379.2	$ —
Equity-related derivative instruments	113.8	—	—	113.8
Foreign currency forward and option contracts	28.4	—	9.0	19.4
Other	1.0	—	1.0	—
Total derivative instruments	522.4	—	389.2	133.2
Investments:				
SMAs	2,801.3	672.1	2,124.2	5.0
Other investments	2,226.1	747.9	70.8	1,407.4
Total investments	5,027.4	1,420.0	2,195.0	1,412.4
Total assets	$ 5,549.8	$ 1,420.0	$ 2,584.2	$ 1,545.6
Liabilities:				
Derivative instruments:				
Cross-currency and interest rate derivative contracts	$ 879.0	$ —	$ 846.3	$ 32.7
Foreign currency forward and option contracts	13.0	—	13.0	—
Total liabilities	$ 892.0	$ —	$ 859.3	$ 32.7

A reconciliation of the beginning and ending balances of our assets and liabilities measured at fair value on a recurring basis using significant unobservable, or Level 3, inputs is as follows:

	Investments	Cross-currency, interest rate and foreign currency derivative contracts	Equity-related derivative instruments	Total
		in millions		
Balance of net assets at January 1, 2022	$ 1,412.4	$ (13.3)	$ 113.8	$ 1,512.9
Gains included in earnings from continuing operations (a):				
Realized and unrealized gains on derivative instruments, net	—	—	0.3	0.3
Realized and unrealized gains due to changes in fair values of certain investments, net	162.1	—	—	162.1
Additions	62.2	—	—	62.2
Dispositions	(30.2)	—	—	(30.2)
Transfers out of Level 3	—	13.3	—	13.3
Foreign currency translation adjustments and other, net	(54.3)	—	—	(54.3)
Balance of net assets at June 30, 2022	$ 1,552.2	$ —	$ 114.1	$ 1,666.3

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(a) Amounts primarily relate to assets and liabilities that we continue to carry on our condensed consolidated balance sheet as of June 30, 2022.

(8) Long-lived Assets

Property and Equipment, Net

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

	June 30, 2022	December 31, 2021
	in millions	
Distribution systems	$ 8,945.0	$ 9,472.8
Support equipment, buildings and land	3,768.0	4,310.5
Customer premises equipment	1,293.8	1,279.2
Total property and equipment, gross	14,006.8	15,062.5
Accumulated depreciation	(7,681.8)	(8,081.0)
Total property and equipment, net	$ 6,325.0	$ 6,981.5

During the six months ended June 30, 2022 and 2021, we recorded non-cash increases to our property and equipment related to vendor financing arrangements of $102.2 million and $546.9 million (including amounts related to the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction), respectively, which exclude related value-added taxes (**VAT**) of $9.8 million and $74.0 million, respectively, that were also financed under these arrangements.

Goodwill

Changes in the carrying amount of our goodwill during the six months ended June 30, 2022 are set forth below:

	January 1, 2022	Foreign currency translation adjustments and other	June 30, 2022
		in millions	
Switzerland	$ 6,590.5	$ (293.0)	$ 6,297.5
Belgium	2,591.8	(205.8)	2,386.0
Ireland	275.9	(21.8)	254.1
Central and Other	65.2	(5.3)	59.9
Total	$ 9,523.4	$ (525.9)	$ 8,997.5

If, among other factors, (i) our equity values were to decline 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.

Intangible Assets Subject to Amortization, Net

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

	June 30, 2022			December 31, 2021		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
			in millions			
Customer relationships	$ 2,206.9	$ (730.2)	$ 1,476.7	$ 2,336.2	$ (602.2)	$ 1,734.0
Other	970.0	(429.2)	540.8	1,034.3	(425.8)	608.5
Total	$ 3,176.9	$ (1,159.4)	$ 2,017.5	$ 3,370.5	$ (1,028.0)	$ 2,342.5

(9) Debt

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

	June 30, 2022					
	Weighted average interest rate (a)	Unused borrowing capacity (b)		Principal amount		
		Borrowing currency	U.S. $ equivalent	June 30, 2022	December 31, 2021
			in millions		
UPC Holding Bank Facility (c)	4.09 %	€ 713.6	$ 748.0	$ 3,562.8	$ 4,062.5
UPC SPE Notes	4.58 %	—	—	1,643.0	1,933.2
UPC Holding Senior Notes	4.79 %	—	—	806.5	1,211.6
Telenet Credit Facility (d)	3.36 %	€ 555.0	581.8	3,458.6	3,558.9
Telenet Senior Secured Notes	4.78 %	—	—	1,566.1	1,614.9
VM Ireland Credit Facility (e)	3.76 %	€ 100.0	104.8	943.4	1,024.9
Vendor financing (f)	1.84 %	—	—	731.6	843.2
Other	7.01 %	—	—	140.5	149.6
Total debt before deferred financing costs, discounts and premiums (g)	3.96 %		$ 1,434.6	$ 12,852.5	$ 14,398.8

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

	June 30, 2022	December 31, 2021
	in millions	
Total debt before deferred financing costs, discounts and premiums	$ 12,852.5	$ 14,398.8
Deferred financing costs, discounts and premiums, net	(44.9)	(57.7)
Total carrying amount of debt	12,807.6	14,341.1
Finance lease obligations (note 10)	440.8	484.0
Total debt and finance lease obligations	13,248.4	14,825.1
Current maturities of debt and finance lease obligations	(764.8)	(850.3)
Long-term debt and finance lease obligations	$ 12,483.6	$ 13,974.8

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(a) Represents the weighted average interest rate in effect at June 30, 2022 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 and certain other obligations that we assumed in connection with certain acquisitions, the weighted average interest rate on our aggregate variable- and fixed-rate indebtedness was 3.17% at June 30, 2022. For information regarding our derivative instruments, see note 6.

(b) Unused borrowing capacity represents the maximum availability under the applicable facility at June 30, 2022 without regard to covenant compliance calculations or other conditions precedent to borrowing. The following table provides our borrowing availability and amounts available to loan or distribute under each of the respective subsidiary facilities, based on the most restrictive applicable leverage covenants and leverage-based restricted payment tests, (i) at June 30, 2022 and (ii) upon completion of the relevant June 30, 2022 compliance reporting requirements. These amounts do not consider any actual or potential changes to our borrowing levels or any amounts loaned or distributed subsequent to June 30, 2022, or the impact of additional amounts that may be available to borrow, loan or distribute under certain defined baskets within each respective facility.

	Availability							
	June 30, 2022				Upon completion of the relevant June 30, 2022 compliance reporting requirements			
	Borrowing currency		U.S. $ equivalent		Borrowing currency		U.S. $ equivalent	
	in millions							
Available to borrow:								
UPC Holding Bank Facility	€	713.6	$	748.0	€	713.6	$	748.0
Telenet Credit Facility	€	555.0	$	581.8	€	555.0	$	581.8
VM Ireland Credit Facility	€	100.0	$	104.8	€	100.0	$	104.8
Available to loan or distribute:								
UPC Holding Bank Facility	€	242.4	$	254.1	€	207.8	$	217.8
Telenet Credit Facility	€	555.0	$	581.8	€	555.0	$	581.8
VM Ireland Credit Facility	€	82.3	$	86.3	€	98.2	$	102.9

(c) Unused borrowing capacity under the UPC Holding Bank Facility relates to an equivalent €713.6 million ($748.0 million) under the UPC Revolving Facility, part of which has been made available as an ancillary facility. With the exception of €22.8 million ($23.9 million) of borrowings under the ancillary facility, the UPC Revolving Facility was undrawn at June 30, 2022.

(d) Unused borrowing capacity under the Telenet Credit Facility comprises (i) €510.0 million ($534.6 million) under the Telenet Revolving Facility I, (ii) €25.0 million ($26.2 million) under the Telenet Overdraft Facility and (iii) €20.0 million ($21.0 million) under the Telenet Revolving Facility, each of which were undrawn at June 30, 2022.

(e) Unused borrowing capacity under the VM Ireland Credit Facility relates to €100.0 million ($104.8 million) under the VM Ireland Revolving Facility, which was undrawn at June 30, 2022.

(f) Represents amounts owed to various creditors pursuant to interest-bearing vendor financing arrangements that are used to finance certain of our property and equipment additions and operating expenses. These arrangements extend our repayment terms beyond a vendor’s original due dates (e.g., extension beyond a vendor’s customary payment terms, which are generally 90 days or less) and as such are classified outside of accounts payable as debt on our condensed consolidated balance sheets. These obligations are generally due within one year and include VAT that was also financed under these arrangements. For purposes of our condensed consolidated statements of cash flows, operating-related expenses financed by an intermediary are treated as constructive operating cash outflows and constructive financing cash inflows when the intermediary settles the liability with the vendor as there is no actual cash outflow until we pay the financing intermediary. During the six months ended June 30, 2022 and 2021, the constructive cash outflow included in cash flows from operating activities and the corresponding constructive cash inflow included in cash flows from financing activities related to these operating expenses was $231.3 million and $1,474.7 million, respectively. Repayments of vendor financing obligations at the time we pay the financing intermediary are included in repayments and repurchases of debt and finance lease obligations in our condensed consolidated statements of cash flows.

(g) As of June 30, 2022 and December 31, 2021, our debt had an estimated fair value of $11.6 billion and $14.5 billion, respectively. The estimated fair values of our debt instruments are generally 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.

Financing Transactions - General Information

At June 30, 2022, most of our outstanding debt had been incurred by one of our three subsidiary "borrowing groups." References to these borrowing groups, which comprise UPC Holding, Telenet and VM Ireland, include their respective restricted parent and subsidiary entities. Below we provide summary descriptions of certain financing transactions completed during the first six months of 2022. A portion of our financing transactions may include non-cash borrowings and repayments. During the six months ended June 30, 2022 and 2021, non-cash borrowings and repayments aggregated nil and $2.9 billion, respectively. Unless otherwise noted, the terms and conditions of any new notes and/or credit facilities are largely consistent with those of existing notes and credit facilities of the corresponding borrowing group with regard to covenants, events of default and change of control provisions, among other items. For information regarding the general terms and conditions of our debt and capitalized terms not defined herein, see note 11 to the consolidated financial statements included in our 10-K.

UPC Holding Financing Transactions

In April 2022, a portion of the net proceeds from the sale of UPC Poland was used to (i) purchase and extinguish €216.5 million ($226.9 million) of the €600.0 million ($628.9 million) outstanding principal amount under UPC Facility AQ, together with accrued and unpaid interest, from the related UPCB SPE and, simultaneously, an equal amount of UPCB Finance VII Euro Notes were purchased and cancelled, (ii) purchase and cancel €205.1 million ($215.0 million) of the €594.3 million ($623.0 million) outstanding principal amount of UPC Holding 3.875% Senior Notes, (iii) purchase and cancel $82.7 million of the $535.0 million outstanding principal amount of UPC Holding 5.50% Senior Notes, (iv) purchase and extinguish $208.0 million of the $1,925.0 million outstanding principal amount under UPC Facility AX, (v) purchase and extinguish €169.5 million ($177.7 million) of the €862.5 million ($904.1 million) outstanding principal amount under UPC Facility AY and (vi) settle associated derivatives. In connection with these transactions, UPC Holding recognized an aggregate loss on debt extinguishment of $2.0 million related to (a) the net gain associated with settlement discounts of $4.7 million, (b) the write-off of $5.2 million of unamortized deferred financing costs and discounts and (c) the payment of $1.5 million of third-party costs.

In May 2022, an additional (i) €51.3 million ($53.8 million) of UPC Holding 3.875% Senior Notes were purchased and cancelled and (ii) €8.6 million ($9.0 million) under UPC Facility AQ, together with accrued and unpaid interest, was purchased and extinguished and, simultaneously, an equal amount of UPCB Finance VII Euro Notes were purchased and cancelled. In connection with these transactions, UPC Holding recognized an aggregate gain on debt extinguishment of $4.8 million related to (a) the net gain associated with settlement discounts of $5.1 million and (b) the write-off of $0.3 million of unamortized deferred financing costs.

Maturities of Debt

Maturities of our debt as of June 30, 2022 are presented below for the named entity and its subsidiaries, unless otherwise noted, and represent U.S. dollar equivalents based on June 30, 2022 exchange rates.

	UPC Holding (a)	Telenet	VM Ireland	Other	Total
			in millions		
Year ending December 31:					
2022 (remainder of year)	$ 199.9	$ 197.9	$ —	$ 30.5	$ 428.3
2023	89.6	161.1	—	47.8	298.5
2024	—	10.5	—	15.0	25.5
2025	—	10.6	—	1.1	11.7
2026	—	10.7	—	—	10.7
2027	—	10.9	—	—	10.9
Thereafter	6,012.3	5,111.2	943.4	—	12,066.9
Total debt maturities (b)	6,301.8	5,512.9	943.4	94.4	12,852.5
Deferred financing costs, discounts and premiums, net	(27.8)	(10.9)	(6.2)	—	(44.9)
Total debt	$ 6,274.0	$ 5,502.0	$ 937.2	$ 94.4	$ 12,807.6
Current portion	$ 289.5	$ 358.6	$ —	$ 55.6	$ 703.7
Long-term portion	$ 5,984.5	$ 5,143.4	$ 937.2	$ 38.8	$ 12,103.9

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(a) Amounts include certain senior secured notes issued by special purpose financing entities that are consolidated by UPC Holding and Liberty Global.

(b) Amounts include vendor financing obligations of $731.6 million, as set forth below:

	Telenet	UPC Holding	Other	Total
		in millions		
Year ending December 31:				
2022 (remainder of year)	$ 197.2	$ 199.9	$ 30.5	$ 427.6
2023	150.5	89.6	47.8	287.9
2024	—	—	15.0	15.0
2025	—	—	1.1	1.1
Total vendor financing maturities	$ 347.7	$ 289.5	$ 94.4	$ 731.6
Current portion	$ 347.7	$ 289.5	$ 55.6	$ 692.8
Long-term portion	$ —	$ —	$ 38.8	$ 38.8

Vendor Financing Obligations

A reconciliation of the beginning and ending balances of our vendor financing obligations for the indicated periods is set forth below:

	2022	2021
	in millions	
Balance at January 1	$ 843.2	$ 1,099.6
Vendor financing obligations of the U.K. JV Entities at January 1	—	2,805.8
Balance at January 1, including amounts classified as held for sale	843.2	3,905.4
Operating-related vendor financing additions	231.3	1,474.7
Capital-related vendor financing additions	102.2	546.9
Principal payments on operating-related vendor financing	(319.1)	(1,143.9)
Principal payments on capital-related vendor financing	(78.5)	(689.6)
Foreign currency, acquisitions and other	(47.5)	(3,126.1)
Balance at June 30	$ 731.6	$ 967.4

(10) Leases

General

We enter into operating and finance leases for network equipment, real estate, mobile site sharing and vehicles. We provide residual value guarantees on certain of our vehicle leases.

Lease Balances

A summary of our ROU assets and lease liabilities is set forth below:

	June 30, 2022	December 31, 2021
	in millions	
ROU assets:		
Finance leases (a)	$ 377.7	$ 426.0
Operating leases (b)	1,733.3	1,327.8
Total ROU assets	$ 2,111.0	$ 1,753.8
Lease liabilities:		
Finance leases (c)	$ 440.8	$ 484.0
Operating leases (d)	1,775.6	1,364.8
Total lease liabilities	$ 2,216.4	$ 1,848.8

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(a) Our finance lease ROU assets are included in property and equipment, net, on our condensed consolidated balance sheets. At June 30, 2022, the weighted average remaining lease term for finance leases was 22.0 years and the weighted average discount rate was 6.0%. During the six months ended June 30, 2022 and 2021, we recorded non-cash additions to our finance lease ROU assets of $18.0 million and $19.5 million (including amounts related to the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction), respectively.

(b) Our operating lease ROU assets are included in other assets, net, on our condensed consolidated balance sheets. At June 30, 2022, the weighted average remaining lease term for operating leases was 13.5 years and the weighted average discount rate was 5.7%. During the six months ended June 30, 2022 and 2021, we recorded non-cash additions to our operating lease ROU assets of $664.1 million and $59.6 million (including amounts related to the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction), respectively. For additional information regarding the non-cash additions to our operating lease ROU assets during the six months ended June 30, 2022 related to the Telenet Tower Lease Agreement, see note 4.

(c) The current and long-term portions of our finance lease liabilities are included within current portion of debt and finance lease obligations and long-term debt and finance lease obligations, respectively, on our condensed consolidated balance sheets.

(d) The current portions of our operating lease liabilities are included within other accrued and current liabilities on our condensed consolidated balance sheets. For additional information regarding the increase in our operating lease liabilities during the six months ended June 30, 2022 related to the Telenet Tower Lease Agreement, see note 4.

A summary of our aggregate lease expense is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Finance lease expense:				
Depreciation and amortization	$ 18.3	$ 18.9	$ 34.8	$ 38.6
Interest expense	7.4	8.2	13.9	16.7
Total finance lease expense	25.7	27.1	48.7	55.3
Operating lease expense (a)	61.0	62.8	112.7	126.2
Short-term lease expense (a)	1.0	1.1	2.1	2.9
Variable lease expense (b)	0.4	0.4	1.5	1.2
Total lease expense	$ 88.1	$ 91.4	$ 165.0	$ 185.6

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(a) Our operating lease expense and short-term lease expense are included in programming and other direct costs of services, other operating expenses, SG&A expenses and impairment, restructuring and other operating items, net, in our condensed consolidated statements of operations.

(b) Variable lease expense represents payments made to a lessor during the lease term that vary because of a change in circumstance that occurred after the lease commencement date. Variable lease payments are expensed as incurred and are included in other operating expenses in our condensed consolidated statements of operations.

A summary of our cash outflows from operating and finance leases is set forth below:

	Six months ended June 30,	
	2022	2021
	in millions	
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash outflows from operating leases	$ 120.2	$ 132.2
Operating cash outflows from finance leases (interest component)	13.9	16.7
Financing cash outflows from finance leases (principal component)	31.1	39.4
Total cash outflows from operating and finance leases	$ 165.2	$ 188.3

Maturities of our operating and finance lease liabilities as of June 30, 2022 are presented below. Amounts represent U.S. dollar equivalents based on June 30, 2022 exchange rates:

	Operating leases	Finance leases
	in millions	
Year ending December 31:		
2022 (remainder of year)	$ 113.6	$ 45.6
2023	220.7	96.6
2024	206.3	61.8
2025	196.2	58.1
2026	187.3	53.1
2027	181.1	48.0
Thereafter	1,219.2	203.2
Total payments	2,324.4	566.4
Less: present value discount	(548.8)	(125.6)
Present value of lease payments	$ 1,775.6	$ 440.8
Current portion	$ 131.2	$ 61.1
Long-term portion	$ 1,644.4	$ 379.7

(11) Income Taxes

Income tax expense attributable to our earnings from continuing operations before income taxes differs from the amounts computed using the applicable income tax rate as a result of the following factors:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Computed “expected” tax expense (a)	$ (445.7)	$ (2,171.3)	$ (665.5)	$ (2,473.0)
Non-deductible or non-taxable foreign currency exchange results	266.8	(39.1)	395.0	80.8
Basis and other differences in the treatment of items associated with investments in subsidiaries and affiliates (b)	198.2	(24.6)	260.4	(24.2)
International rate differences (c)	(75.5)	(17.7)	(116.4)	(41.6)
Non-deductible or non-taxable interest and other items	(34.0)	(22.8)	(66.2)	(38.4)
Change in valuation allowances	21.7	(123.0)	35.6	(88.5)
Tax benefit associated with technology innovation	5.5	5.7	11.3	11.5
Non-taxable gain associated with the U.K. JV Transaction	—	2,116.2	—	2,116.2
Other, net	(0.6)	(0.2)	1.0	15.2
Total income tax expense	$ (63.6)	$ (276.8)	$ (144.8)	$ (442.0)

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(a) The statutory or “expected” tax rate is the U.K. rate of 19.0%. On June 10, 2021, legislation was enacted in the U.K. to increase the U.K. corporate income rate to 25.0% from April 1, 2023. The impact of this rate change on our deferred tax balances was recorded during the second quarter of 2021. Effective January 1, 2022, the enacted corporate income tax rate in the Netherlands increased from 25.0% to 25.8%. This change did not have a material impact on our consolidated financial statements.

(b) Amounts reflect the net impact of differences in the treatment of income and loss items between financial reporting and tax accounting related to investments in subsidiaries and affiliates, including the effects of foreign earnings.

(c) Amounts reflect adjustments (either a benefit or expense) to the “expected” tax benefit (expense) for statutory rates in jurisdictions in which we operate outside of the U.K.

As of June 30, 2022, our unrecognized tax benefits were $434.1 million, of which $410.9 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 and other factors.

During the next 12 months, we do not expect any material reductions to our unrecognized tax benefits related to tax positions taken as of June 30, 2022. No assurance can be given as to the nature or impact of any changes in our unrecognized tax positions during the next 12 months.

Certain of our subsidiaries are currently involved in income tax examinations in various jurisdictions in which we operate, including Belgium, Ireland and the U.S. While we do not expect adjustments from the foregoing examinations to have a material impact on our consolidated financial position, results of operations or cash flows, no assurance can be given that this will be the case given the amounts involved and the complex nature of the related issues.

(12) Equity

Share Repurchases. During the six months ended June 30, 2022, we repurchased (i) 874,200 shares of our Class A ordinary shares at an average price per share of $21.73 and (ii) 41,057,400 shares of our Class C ordinary shares at an average price per share of $25.40, for an aggregate purchase price of $1,062.0 million, including direct acquisition costs.

As of June 30, 2022, the remaining number of our Class A and/or Class C ordinary shares that we are authorized to repurchase during 2022 was 10.8 million. Based on the average of the respective closing share prices as of June 30, 2022, this would equate to additional share repurchases during the remainder of 2022 of approximately $233.4 million. However, the actual U.S. dollar amount of our share repurchases during the remainder of 2022 will be determined by the actual transaction date share prices during the year and could differ significantly from this amount. In July 2022, our board of directors authorized an additional $400.0 million for 2022 share repurchases. In addition, we are authorized to repurchase 10% of our shares during 2023 based on the total number of our outstanding shares as of December 31, 2022.

(13) Share-based Compensation

Our share-based compensation expense primarily relates to the share-based incentive awards issued by Liberty Global to its employees and employees of its subsidiaries. A summary of our aggregate share-based compensation expense is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Liberty Global:				
Non-performance based incentive awards (a)	$ 32.1	$ 59.4	$ 65.1	$ 84.8
Performance-based incentive awards (b)	—	14.4	7.1	38.4
Other (c)	3.6	7.6	12.6	15.0
Total Liberty Global	35.7	81.4	84.8	138.2
Other	13.6	18.4	15.9	25.0
Total	$ 49.3	$ 99.8	$ 100.7	$ 163.2
Included in:				
Other operating expense	$ 2.1	$ 7.6	$ 2.4	$ 8.8
SG&A expense	47.2	92.2	98.3	154.4
Total	$ 49.3	$ 99.8	$ 100.7	$ 163.2

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(a) In April 2021, with respect to 2014 and 2015 grants, the compensation committee of our board of directors approved the extension of the expiration dates of outstanding share appreciation rights (**SARs**) and director options from a seven-year term to a ten-year term. Accordingly, the Black-Scholes fair values of the respective outstanding awards increased, resulting in the recognition of aggregate incremental share-based compensation expense of $22.7 million during the second quarter of 2021.

(b) Includes share-based compensation expense related to (i) our 2019 Challenge Performance Awards and (ii) in the 2021 periods, performance-based restricted share units (**PSUs**) and our 2019 CEO Performance Award.

(c) Represents annual incentive compensation and defined contribution plan liabilities that have been or are expected to be settled with Liberty Global ordinary shares. In the case of the annual incentive compensation, shares have been or will be issued to senior management and key employees pursuant to a shareholding incentive program. The shareholding incentive program allows these employees to elect to receive up to 100% of their annual incentive compensation in ordinary shares of Liberty Global in lieu of cash. In addition, amounts include compensation expense related to the Ventures Incentive Plans (as defined and described below).

The following table provides the aggregate number of options, SARs and performance-based share appreciation rights (**PSARs**) with respect to awards issued by Liberty Global that were (i) outstanding and (ii) exercisable as of June 30, 2022:

	Class A		Class C	
	Gross number of shares underlying option, SAR and PSAR awards (a)	Weighted average exercise or base price	Gross number of shares underlying option, SAR and PSAR awards (a)	Weighted average exercise or base price
Held by Liberty Global employees:				
Outstanding	25,600,244	$ 26.91	59,728,970	$ 26.06
Exercisable	17,948,634	$ 28.16	38,614,693	$ 27.07
Held by former Liberty Global employees (b):				
Outstanding	1,710,047	$ 31.22	4,379,677	$ 29.02
Exercisable	1,612,855	$ 31.78	4,185,327	$ 29.38

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(a) Amounts represent the gross number of shares associated with option, SAR and PSAR awards issued to our current and former employees and our directors. Our company settles SARs and PSARs on a net basis when exercised by the award holder, whereby the number of shares issued represents the excess value of the award based on the market price of the respective Liberty Global shares at the time of exercise relative to the award's exercise price. In addition, the number of shares issued is further reduced by the amount of the employee's required income tax withholding.

(b) Amounts represent certain share-based awards that continue to be held by former employees of Liberty Global subsequent to certain split-off or disposal transactions. Although future exercises of these awards by former employees will not result in the recognition of share-based compensation expense, such exercises will increase the number of our outstanding ordinary shares.

The following table provides the aggregate number of restricted share units (**RSUs**) that were outstanding as of June 30, 2022. The number of shares to be issued on the vesting date of these awards will be reduced by the amount of the employee's required income tax withholding.

	Class A	Class B	Class C
Held by Liberty Global employees	2,092,020	7,890	4,183,450
Held by Former Liberty Global employees (a)	37,557	—	76,321

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(a) Amounts represent certain share-based awards that continue to be held by former employees of Liberty Global subsequent to certain split-off or disposal transactions. Although we do not recognize share-based compensation expense with respect to these awards, the future vesting of these RSUs will increase the number of our outstanding ordinary shares.

2022 Ventures Incentive Plan

In April 2022, the compensation committee of our board of directors approved the "**2022 Ventures Incentive Plan**". Structured similarly to the 2021 Ventures Incentive Plan, the 2022 Ventures Incentive Plan was provided to executive officers and other key employees and is based on the performance of the Liberty Global Ventures Portfolio (the "**Portfolio**"), which is measured by assessing the fair value of the Portfolio over a three-year period beginning December 31, 2021 and ending on December 31, 2024. Payout will be denominated in cash and will be assessed at the end of the three-year period using eligible participants' initial contribution between 10% and 50% of their 2022 annual target equity value (which contributed amount is in lieu of their normal annual equity grant). The compensation committee has the discretion to settle the final payout amount in (i) cash or (ii) Liberty Global Class A and Class C ordinary shares based on the change in the Portfolio's value. Subject to forfeitures, 100% of each participant's payout under the 2022 Ventures Incentive Plan will vest on or around March 15, 2025. In order to receive the payout, participants are required to remain employed through the final vesting date. An initial fair value assessment was performed for the Portfolio as of December 31, 2021 by an independent third-party valuation specialist.

The 2022 Ventures Incentive Plan and 2021 Ventures Incentive Plan awards (together the **Ventures Incentive Plans**) are liability classified due to the fact that the final payout under these plans will be denominated in cash and may be settled in a variable number of shares. We recognize share-based compensation expense related to the Ventures Incentive Plans as a charge to operations on a straight-line basis, including any changes in expense due to the change in the fair value of the Portfolio on each assessment date, from the date of grant through the respective vesting dates. Our share of payroll taxes incurred in connection with the vesting of the Ventures Incentive Plans is recorded as a component of share-based compensation expense in our condensed consolidated statements of operations. The estimated fair value of the final payouts under our Ventures Incentive Plans are shown below:

	Vesting date	June 30, 2022
		in millions
2021 Ventures Incentive Plan	March 2024	$ 16
2022 Ventures Incentive Plan	March 2025	9
Total		$ 26

(14) Earnings per Share

Basic earnings or loss per share (**EPS**) is computed by dividing net earnings or loss by the weighted average number of shares outstanding for the period. Diluted EPS presents the dilutive effect, if any, on a per share basis of potential shares (e.g., options, SARs, RSUs, PSARs and PSUs) as if they had been exercised, vested or converted at the beginning of the periods presented.

The details of our basic and diluted weighted average ordinary shares outstanding are set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Weighted average ordinary shares outstanding (basic EPS computation)	501,406,664	557,051,920	510,811,156	566,033,344
Incremental shares attributable to the assumed exercise of outstanding options and SARs and the release of RSUs and PSUs upon vesting (treasury stock method)	8,035,941	12,048,780	10,321,885	11,021,844
Weighted average ordinary shares outstanding (diluted EPS computation)	509,442,605	569,100,700	521,133,041	577,055,188

The calculation of diluted EPS excludes (i) for the three months ended June 30, 2022 and 2021, a total of 78.3 million and 57.9 million options, SARs and RSUs, respectively, and for the 2021 period, 13.8 million PSARs and PSUs and (ii) for the six months ended June 30, 2022 and 2021, a total of 60.3 million and 74.0 million options, SARs and RSUs, respectively, and for the 2021 period, 13.8 million PSARs and PSUs because their effect would have been anti-dilutive or, in the case of the PSARs and PSUs, because such awards had not yet met the applicable performance criteria.

The details of our net earnings from continuing operations attributable to Liberty Global shareholders is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	**2021**	**2022**	**2021**
		in millions		
Earnings from continuing operations	$ 2,282.2	$ 11,150.9	$ 3,357.9	$ 12,573
Net earnings from continuing operations attributable to noncontrolling interests	(344.5)	(46.3)	(416.5)	(101
Net earnings from continuing operations attributable to Liberty Global shareholders	$ 1,937.7	$ 11,104.6	$ 2,941.4	$ 12,472

(15) Commitments and Contingencies

Commitments

In the normal course of business, we enter into agreements that commit our company to make cash payments in future periods with respect to network and connectivity commitments, purchases of customer premises and other equipment and services, programming contracts and other items. The following table sets forth the U.S. dollar equivalents of such commitments as of June 30, 2022. The commitments included in this table do not reflect any liabilities that are included on our June 30, 2022 condensed consolidated balance sheet.

	Payments due during:							
	Remainder of 2022	**2023**	**2024**	**2025**	**2026**	**2027**	**Thereafter**	**Total**
					in millions			
Network and connectivity commitments	$ 168.5	$ 215.6	$ 183.1	$ 142.5	$ 96.1	$ 92.5	$ 1,187.2	$ 2,085.5
Purchase commitments	293.1	231.4	52.9	30.0	11.4	0.5	0.5	619.8
Programming commitments	92.9	127.3	113.4	68.1	45.1	17.9	—	464.7
Other commitments	46.4	57.6	32.0	32.5	32.2	26.1	107.7	334.5
Total	$ 600.9	$ 631.9	$ 381.4	$ 273.1	$ 184.8	$ 137.0	$ 1,295.4	$ 3,504.5

Network and connectivity commitments include (i) Telenet’s commitments for certain operating costs associated with its leased network, (ii) certain network capacity arrangements in Switzerland and (iii) future payments associated with Telenet’s spectrum licenses. Telenet’s commitments for certain operating costs are subject to adjustment based on changes in the network operating costs incurred by Telenet with respect to its own networks. These potential adjustments are not subject to reasonable estimation and, therefore, are not included in the above table.

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

Programming commitments consist of obligations associated with certain of our programming, studio output 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. 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 this will continue to be the case in future periods. In this regard, our total programming and copyright costs aggregated $263.1 million and $820.4 million (including amounts related to the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction) during the six months ended June 30, 2022 and 2021, respectively.

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 the six months ended June 30, 2022 and 2021, see note 6.

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.

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

Interkabel Acquisition. On November 26, 2007, Telenet and four associations of municipalities in Belgium, which we refer to as the pure intercommunales or the “**PICs**,” announced a non-binding agreement-in-principle to transfer the analog and digital television activities of the PICs, including all existing subscribers, to Telenet. Subsequently, Telenet and the PICs entered into a binding agreement (the **2008 PICs Agreement**), which closed effective October 1, 2008. Beginning in December 2007, Proximus NV/SA (**Proximus**), the incumbent telecommunications operator in Belgium, instituted several proceedings seeking to block implementation of these agreements. Proximus lodged summary proceedings with the President of the Court of First Instance of Antwerp to obtain a provisional injunction preventing the PICs from effecting the agreement-in-principle and initiated a civil procedure on the merits claiming the annulment of the agreement-in-principle. In March 2008, the President of the Court of First Instance of Antwerp ruled in favor of Proximus in the summary proceedings, which ruling was overturned by the Court of Appeal of Antwerp in June 2008. Proximus brought an appeal judgment before the Belgian Supreme Court, which confirmed the appeal judgment in September 2010. On April 6, 2009, the Court of First Instance of Antwerp ruled in favor of the PICs and Telenet in the civil procedure on the merits, dismissing Proximus’ request for the rescission of the agreement-in-principle and the 2008 PICs Agreement. On June 12, 2009, Proximus appealed this judgment to the Court of Appeal of Antwerp. In this appeal, Proximus also sought compensation for damages. While these proceedings were suspended indefinitely, other proceedings were initiated, which resulted in a ruling by the Belgian Council of State in May 2014 annulling (i) the decision of the PICs not to organize a public market consultation and (ii) the decision from the PICs’ board of directors to approve the 2008 PICs Agreement. In December 2015, Proximus resumed the civil proceedings pending with the Court of Appeal of Antwerp seeking to have the 2008 PICs Agreement annulled and claiming damages of €1.4 billion ($1.5 billion). On December 18, 2017, the Court of Appeal of Antwerp rejected Proximus’ claim in its entirety. On June 28, 2019, Proximus brought this appeal judgment before the Belgian Supreme Court. On January 22, 2021, the Belgian Supreme Court partially annulled the judgment of the Court of Appeal of Antwerp. The case was referred to the Court of Appeal of Brussels and is currently pending with this Court which will need to make a new decision on the matter within the boundaries of the annulment by the Belgian Supreme Court. It is likely that it will take the Court of Appeal of Brussels several years to decide on the matter.

No assurance can be given as to the outcome of these or other proceedings. However, an unfavorable outcome of existing or future proceedings could potentially lead to the annulment of the 2008 PICs Agreement. We do not expect the ultimate resolution of this matter to have a material impact on our results of operations, cash flows or financial position. No amounts have been accrued by us with respect to this matter as the likelihood of loss is not considered to be probable.

Telekom Deutschland Litigation. On December 28, 2012, Unitymedia filed a lawsuit against Telekom Deutschland GmbH (**Telekom Deutschland**) in which Unitymedia asserted that it pays excessive prices for the co-use of Telekom Deutschland's cable ducts in Unitymedia's footprint. The Federal Network Agency approved rates for the co-use of certain ducts of Telekom Deutschland in March 2011. Based in part on these approved rates, Unitymedia sought a reduction of the annual lease fees by approximately five-sixths. In addition, Unitymedia sought the return of similarly calculated overpayments from 2009 through the ultimate settlement date, plus accrued interest. In October 2016, the first instance court dismissed this action, and in March 2018, the court of appeal dismissed Unitymedia's appeal of the first instance court's decision. Unitymedia has since successfully appealed the case to the Federal Court of Justice, and proceedings continue before the German courts. The resolution of this matter may take several years and no assurance can be given that Unitymedia's claims will be successful. In connection with our sale of the Vodafone Disposal Group in 2019, we will only share in 50% of any amounts recovered, plus 50% of the net present value of certain cost savings in future periods that are attributable to the favorable resolution of this matter, less 50% of associated legal or other third-party fees paid post-completion of the sale of the Vodafone Disposal Group. Any amount we may recover related to this matter will not be reflected in our consolidated financial statements until such time as the final disposition of this matter has been reached.

Belgium Regulatory Developments. In June 2018, the Belgisch Instituut voor Post en Telecommunicatie and the regional regulators for the media sectors (together, the **Belgium Regulatory Authorities**) adopted a new decision finding that Telenet has significant market power in the wholesale broadband market (the **2018 Decision**). The 2018 Decision imposes on Telenet the obligations to (i) provide third-party operators with access to the digital television platform (including basic digital video and analog video) and (ii) make available to third-party operators a bitstream offer of broadband internet access (including fixed-line telephony as an option). Unlike prior decisions, the 2018 Decision no longer applies "retail minus" pricing on Telenet; however, as of August 1, 2018, this decision imposed a 17% interim price reduction in monthly wholesale cable access prices. On July 5, 2019, the Belgium Regulatory Authorities published for consultation a draft decision regarding "reasonable access tariffs" that would replace the interim prices. On May 26, 2020, the Belgium Regulatory Authorities adopted a final decision regarding the "reasonable access tariffs" (the **2020 Decision**) that represents, for example, a decrease of 11.5% as compared to the interim rates for a 100 Mbps offer combined with TV. These rates are expected to evolve over time due to, among other reasons, broadband capacity usage. The 2020 Decision became effective on July 1, 2020.

The 2020 Decision aims to, and in its application may, strengthen Telenet's competitors by granting them resale access to Telenet's network to offer competing products and services notwithstanding Telenet's substantial historical financial outlays in developing the infrastructure. In addition, any resale access granted to competitors could (i) limit the bandwidth available to Telenet to provide new or expanded products and services to the customers served by its network and (ii) adversely impact Telenet's ability to maintain or increase its revenue and cash flows. The extent of any such adverse impacts ultimately will be dependent on the extent that competitors take advantage of the resale access afforded to Telenet's network, the rates that Telenet receives for such access and other competitive factors or market developments. Telenet considers the 2018 Decision to be inconsistent with the principle of technology-neutral regulation and the European Single Market Strategy to stimulate further investments in broadband networks. Telenet challenged the 2018 Decision in the Court of Appeal of Brussels and also initiated an action in the European Court of Justice against the European Commission's decision not to challenge the 2018 Decision. The proceedings before the European Court of Justice have been withdrawn by Telenet in order to avoid undue delays in the Court of Appeal case. In a decision issued on September 4, 2019, the Court of Appeal of Brussels upheld the 2018 Decision.

UPC Austria Matter. On July 31 2018, we completed the sale of our Austrian operations, "UPC Austria," to Deutsche Telekom AG (Deutsche Telekom). In October 2019, we received notification under the terms of the relevant acquisition agreements from Deutsche Telekom and its subsidiary, T-Mobile Austria Holding GmbH, (together, the UPC Austria Sale Counterparties), asserting claims that totaled €126.3 million ($132.4 million), plus interest, as of June 30, 2022. In July 2022, we agreed with the UPC Austria Sale Counterparties to resolve the matter, the terms of which were not material to us and were accrued in our June 30, 2022 condensed consolidated financial statements.

Other Contingency Matters. In connection with the dispositions of certain of our operations, we provided tax indemnities to the counterparties for certain tax liabilities that could arise from the period we owned the respective operations, subject to certain thresholds. While we have not received notification from the counterparties for indemnification, it is reasonably possible that we could, and the amounts involved could be significant. No amounts have been accrued by our company as the likelihood of any loss is not considered to be probable. Further, Liberty Global may be entitled to certain amounts that our disposed operations may recover from taxing authorities. Any such amounts will not be reflected in our consolidated financial statements until such time as the final disposition of such matters has been reached.

Other Regulatory Matters. 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 European Union (**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. Regulation may also 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) <u>Segment Reporting</u>

We generally identify our reportable segments as (i) those consolidated subsidiaries that represent 10% or more of our revenue, Adjusted EBITDA (as defined below) or total assets or (ii) those equity method affiliates where our investment or share of revenue or Adjusted EBITDA represents 10% or more of our total assets, revenue or Adjusted EBITDA, respectively. 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 Adjusted EBITDA. In addition, we review non-financial measures such as customer growth, as appropriate.

Adjusted EBITDA is the primary measure used by our chief operating decision maker to evaluate segment operating performance and 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, "**Adjusted EBITDA**" is defined as earnings (loss) from continuing operations before net income tax benefit (expense), other non-operating income or expenses, net share of results of affiliates, net gains (losses) on extinguishment of debt, net realized and unrealized gains (losses) due to changes in fair values of certain investments, net foreign currency gains (losses), net gains (losses) on derivative instruments, net interest expense, depreciation and amortization, share-based compensation, provisions and provision releases related to significant litigation and impairment, restructuring and other operating items. Other operating items include (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 Adjusted EBITDA 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 earnings or loss from continuing operations to Adjusted EBITDA is presented below.

As of June 30, 2022, our reportable segments are as follows:

Consolidated:

- Switzerland
- Belgium
- Ireland

Nonconsolidated:

- VMO2 JV
- VodafoneZiggo JV

All of our reportable segments derive their revenue primarily from residential and B2B communications services, including broadband internet, video, fixed-line telephony and mobile services.

Our "**Central and Other**" category primarily includes (i) our operations in Slovakia, (ii) services provided to the VMO2 JV, the VodafoneZiggo JV and various third parties related to transitional service agreements, (iii) sales of customer premises equipment to the VodafoneZiggo JV and (iv) certain centralized functions, including billing systems, network operations, technology, marketing, facilities, finance and other administrative functions.

We present only the reportable segments of our continuing operations in the tables below.

Performance Measures of Our Reportable Segments

The amounts presented below represent 100% of each of our reportable segment's revenue and Adjusted EBITDA. As we have the ability to control Telenet, we consolidate 100% of Telenet's revenue and expenses in our condensed consolidated statements of operations despite the fact that third parties own a significant interest. The noncontrolling owners' interests in the operating results of Telenet and other less significant majority-owned subsidiaries are reflected in net earnings or loss attributable to noncontrolling interests in our condensed consolidated statements of operations. Similarly, despite only holding a 50% noncontrolling interest in both the VMO2 JV and the VodafoneZiggo JV, we present 100% of the revenue and Adjusted EBITDA of those entities in the tables below. Our share of the operating results of the VMO2 JV and the VodafoneZiggo JV are included in share of results of affiliates, net, in our condensed consolidated statements of operations.

	Revenue			
	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Switzerland	$ 766.1	$ 825.4	$ 1,587.5	$ 1,667.2
Belgium	689.1	774.8	1,413.5	1,547.5
Ireland	121.5	134.1	249.3	270.2
U.K. (a)	—	1,101.4	—	2,736.4
Central and Other	180.6	157.0	362.0	277.3
Intersegment eliminations	(3.1)	(3.5)	(4.8)	(9.5)
Total	$ 1,754.2	$ 2,989.2	$ 3,607.5	$ 6,489.1
VMO2 JV (b)	$ 3,202.6	$ 1,208.5	$ 6,600.6	$ 1,208.5
VodafoneZiggo JV	$ 1,065.6	$ 1,215.3	$ 2,195.6	$ 2,432.3

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(a) The 2021 amounts represent the revenue of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

(b) The 2021 amounts represent the revenue of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

	Adjusted EBITDA			
	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Switzerland	$ 276.5	$ 298.5	$ 577.7	$ 580.1
Belgium	330.3	389.6	670.7	761.4
Ireland	52.0	54.0	102.9	101.6
U.K. (a)	—	444.9	—	1,085.3
Central and Other	(9.4)	9.6	(16.8)	(16.7)
Intersegment eliminations (b)	0.4	2.5	(0.4)	3.6
Total	$ 649.8	$ 1,199.1	$ 1,334.1	$ 2,515.3
VMO2 JV (c)	$ 1,059.4	$ 411.0	$ 2,454.7	$ 411.0
VodafoneZiggo JV	$ 490.9	$ 570.1	$ 1,028.7	$ 1,135.3

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(a) The 2021 amounts represent the Adjusted EBITDA of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

(b) Amounts relate to transactions between our continuing and discontinued operations.

(c) The 2021 amounts represent the Adjusted EBITDA of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

The following table provides a reconciliation of earnings from continuing operations to Adjusted EBITDA:

	Three months ended June 30, 2022	Three months ended June 30, 2021	Six months ended June 30, 2022	Six months ended June 30, 2021
	in millions			
Earnings from continuing operations	$ 2,282.2	$ 11,150.9	$ 3,357.9	$ 12,573.6
Income tax expense	63.6	276.8	144.8	442.0
Other income, net	(26.6)	(7.3)	(38.5)	(17.4)
Gain on U.K. JV Transaction	—	(11,138.0)	—	(11,138.0)
Gain on Telenet Tower Sale	(693.3)	—	(693.3)	—
Share of results of affiliates, net	(81.1)	8.1	(311.6)	6.4
Losses (gains) on debt extinguishment, net	(2.8)	90.6	(2.8)	90.6
Realized and unrealized losses (gains) due to changes in fair values of certain investments, net	112.0	(288.1)	205.6	(482.7)
Foreign currency transaction gains, net	(1,148.7)	(131.4)	(1,723.7)	(435.2)
Realized and unrealized losses (gains) on derivative instruments, net	(613.7)	303.1	(1,122.2)	(508.1)
Interest expense	132.9	272.5	267.1	607.2
Operating income	24.5	537.2	83.3	1,138.4
Impairment, restructuring and other operating items, net	58.3	6.8	67.7	51.2
Depreciation and amortization	517.7	555.3	1,082.4	1,162.5
Share-based compensation expense	49.3	99.8	100.7	163.2
Adjusted EBITDA	$ 649.8	$ 1,199.1	$ 1,334.1	$ 2,515.3

Property and Equipment Additions of our Reportable Segments

The property and equipment additions of our reportable segments (including capital additions financed under capital-related vendor financing or finance lease arrangements) are presented below and reconciled to the capital expenditure amounts included in our condensed consolidated statements of cash flows. For additional information concerning capital additions financed under vendor financing and finance lease arrangements, see notes 8 and 10, respectively.

	Six months ended June 30, 2022	Six months ended June 30, 2021
	in millions	
Switzerland	$ 255.1	$ 278.2
Belgium	291.5	291.2
Ireland	50.2	43.3
U.K. (a)	—	557.4
Central and Other (b)	121.1	151.0
Total property and equipment additions	717.9	1,321.1
Assets acquired under capital-related vendor financing arrangements	(102.2)	(546.9)
Assets acquired under finance leases	(18.0)	(19.5)
Changes in current liabilities related to capital expenditures	36.5	87.7
Total capital expenditures, net	$ 634.2	$ 842.4
Property and equipment additions:		
VMO2 JV (c)	$ 1,348.6	$ 226.3
VodafoneZiggo JV	$ 472.5	$ 510.4

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(a) The 2021 amount represents the property and equipment additions of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

(b) Includes (i) property and equipment additions representing centrally-owned assets that benefit our operating segments, (ii) the net impact of certain centrally-procured network equipment that is ultimately transferred to our operating segments and (iii) property and equipment additions of our operations in Slovakia.

(c) The 2021 amount represents the property and equipment additions of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

Revenue by Major Category

Our revenue by major category for our consolidated reportable segments is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Residential revenue:				
Residential fixed revenue (a):				
Subscription revenue (b):				
Broadband internet	$ 341.2	$ 739.3	$ 701.4	$ 1,642.1
Video	269.4	560.5	555.9	1,234.9
Fixed-line telephony	95.6	268.0	199.5	621.1
Total subscription revenue	706.2	1,567.8	1,456.8	3,498.1
Non-subscription revenue	27.2	46.6	52.8	102.4
Total residential fixed revenue	733.4	1,614.4	1,509.6	3,600.5
Residential mobile revenue (c):				
Subscription revenue (b)	347.0	414.8	700.2	895.3
Non-subscription revenue	115.8	197.0	261.1	477.2
Total residential mobile revenue	462.8	611.8	961.3	1,372.5
Total residential revenue	1,196.2	2,226.2	2,470.9	4,973.0
B2B revenue (d):				
Subscription revenue	127.3	183.3	260.2	343.0
Non-subscription revenue	209.3	374.1	430.7	803.9
Total B2B revenue	336.6	557.4	690.9	1,146.9
Other revenue (e)	221.4	205.6	445.7	369.2
Total	$ 1,754.2	$ 2,989.2	$ 3,607.5	$ 6,489.1

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(a) Residential fixed subscription revenue includes amounts received from subscribers for ongoing services and the recognition of deferred installation revenue over the associated contract period. Residential fixed non-subscription revenue includes, among other items, channel carriage fees, 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 fixed 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 (i) services provided to certain small or home office (**SOHO**) subscribers and (ii) mobile services provided to medium and large enterprises. SOHO subscribers pay a premium price to receive expanded service levels along with broadband internet, video, 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 (a) revenue from business broadband internet, video, fixed-line telephony and data services offered to medium and large enterprises and, fixed-line and mobile services on a wholesale basis, to other operators and (b) revenue from long-term leases of portions of our network.

(e) Other revenue includes, among other items, (i) revenue earned from the U.K. JV Services, the NL JV Services and the sale of customer premises equipment to the VodafoneZiggo JV, (ii) broadcasting revenue in Belgium and Ireland and (iii) revenue earned from transitional and other services provided to various third parties.

Geographic Segments

The revenue of our geographic segments is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Switzerland	$ 766.1	$ 825.4	$ 1,587.5	$ 1,667.2
Belgium	689.1	774.8	1,413.5	1,547.5
Ireland	121.5	134.1	249.3	270.2
Slovakia	12.4	13.3	25.3	26.3
U.K. (a)	—	1,101.4	—	2,736.4
Other, including intersegment eliminations	165.1	140.2	331.9	241.5
Total	$ 1,754.2	$ 2,989.2	$ 3,607.5	$ 6,489.1
VMO2 JV (U.K.) (b)	$ 3,202.6	$ 1,208.5	$ 6,600.6	$ 1,208.5
VodafoneZiggo JV (Netherlands)	$ 1,065.6	$ 1,215.3	$ 2,195.6	$ 2,432.3

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(a) The 2021 amounts represent the revenue of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

(b) The 2021 amounts represent the revenue of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

(17) Subsequent Events

On July 19, 2022, Telenet and Fluvius System Operator CV (**Fluvius**) entered into an agreement to create an independent, self-funding infrastructure company (**NetCo**) within their combined geographic footprint in Belgium. The companies will each contribute certain cable infrastructure assets with Telenet and Fluvius initially owning 66.8% and 33.2% of NetCo, respectively. Telenet and Liberty Global will consolidate NetCo upon closing of the transaction, which we currently expect to occur in early 2023. The closing of the transaction is subject to the satisfaction of certain conditions, including regulatory conditions and approval from Fluvius shareholders.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis, which should be read in conjunction with our consolidated financial statements and the discussion and analysis included in our 10-K, is intended to assist in providing an understanding of our financial condition, changes in financial condition and results of operations 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.
- *Material Changes in Results of Operations.* This section provides an analysis of our results of operations for the three and six months ended June 30, 2022 and 2021.
- *Material Changes in Financial Condition.* This section provides an analysis of our corporate and subsidiary liquidity and our condensed consolidated statements of cash flows.

The capitalized terms used below have been defined in the notes to our condensed consolidated financial statements. In the following text, the terms "we," "our," "our company" and "us" may refer, as the context requires, to Liberty Global or collectively to Liberty Global and its subsidiaries.

Unless otherwise indicated, convenience translations into U.S. dollars are calculated as of June 30, 2022.

Forward-looking Statements

Certain statements in this Quarterly Report on Form 10-Q constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. To the extent that statements in this Quarterly 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 Part I, Item 2. *Management's Discussion and Analysis of Financial Condition and Results of Operations*, Part I, Item 3. *Quantitative and Qualitative Disclosures About Market Risk* and Part II, Item 2. *Unregistered Sales of Equity Securities and Use of Proceeds* may contain forward-looking statements, including statements regarding our business, product, foreign currency and finance strategies, our property and equipment additions, 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, interest rate risks, target leverage levels, debt covenants, future projected contractual commitments and cash flows, our share repurchase program 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 discussed in Part I, Item 1A. *Risk Factors* of our 10-K, as well as the following list of some but not all of the factors that could cause actual results or events (including with respect to our affiliates) to differ materially from anticipated results or events:

- economic and business conditions and industry trends in the countries in which we or our affiliates operate;
- the competitive environment in the industries and in the countries in which we or our affiliates 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 and broadband usage preferences and habits;
- consumer acceptance of our existing service offerings, including our broadband internet, video, 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 and the rate at which our current technology becomes obsolete;

- our ability to maintain or increase the number of subscriptions to our broadband internet, video, 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 and legislation in the countries in which we or our affiliates operate and adverse outcomes from regulatory proceedings;
- government intervention that requires opening our broadband distribution networks to competitors, such as the obligations imposed in Belgium;
- our ability to obtain regulatory approval and shareholder approval and satisfy other conditions necessary to close acquisitions and dispositions and the impact of conditions imposed by competition and other regulatory authorities in connection with acquisitions;
- our ability to successfully acquire new businesses and, if acquired, to integrate, realize anticipated efficiencies from, and implement our business plan with respect to, the businesses we have acquired or that we expect to acquire;
- changes in laws or treaties relating to taxation, or the interpretation thereof, in the U.K., the U.S. or in other countries in which we or our affiliates 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;
- our ability to navigate the potential impacts on our business resulting from the U.K.'s departure from the E.U.;
- the ability of suppliers and vendors (including our third-party wireless network providers under our mobile virtual network operator (**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 production costs, 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;
- the availability of capital for the acquisition and/or development of telecommunications networks and services;
- the availability, cost and regulation of spectrum;
- problems we may discover post-closing with the operations, including the internal controls and financial reporting process, of businesses we acquire;
- successfully integrating businesses we acquire in the time or within the budgets estimated for such integrations;
- operating costs, customer loss and business disruption, including maintaining relationships with employees, customers, suppliers or vendors may be greater than expected in connection with our acquisitions;
- our ability to realize the expected synergies from our acquisitions in the amounts anticipated or on the anticipated timelines;
- our ability to profit from investments in joint ventures that we do not solely control;
- 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;
- our capital structure and factors related to our debt agreements; and
- events that are outside of our control, such as political unrest in international markets, terrorist attacks, armed conflicts, malicious human acts, natural disasters, epidemics, pandemics (such as COVID-19) and other similar events, including the ongoing invasion of Ukraine by Russia.

The broadband distribution and mobile service industries are changing rapidly and, therefore, the forward-looking statements of expectations, plans and intent in this Quarterly 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 Quarterly 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 broadband internet, video, fixed-line telephony and mobile communications services to residential customers and businesses in Europe. Our operations comprise businesses that provide residential and B2B communications services in (i) Switzerland and Slovakia through UPC Holding, (ii) Belgium through Telenet and (iii) Ireland through VM Ireland. In addition, we own 50% noncontrolling interests in (a) the VMO2 JV, which provides residential and B2B communications services in the U.K., and (b) the VodafoneZiggo JV, which provides residential and B2B communications services in the Netherlands.

Through March 31, 2022, we provided residential and B2B communications services in Poland through UPC Holding. On April 1, 2022, we completed the sale of our operations in Poland. Accordingly, our operations in Poland are reflected as discontinued operations for all applicable periods. In the following discussion and analysis, the operating statistics, results of operations, cash flows and financial condition that we present and discuss are those of our continuing operations, unless otherwise indicated. For additional information regarding the sale of UPC Poland, including with respect to our use of proceeds, see note 4 to our condensed consolidated financial statements.

Through May 31, 2021, our consolidated operations also provided residential and B2B communications services in the U.K. through Virgin Media. On June 1, 2021, we contributed the U.K. JV Entities to the VMO2 JV and began accounting for our 50% interest in the VMO2 JV as an equity method investment. For additional information, see note 4 to our condensed consolidated financial statements.

Operations

At June 30, 2022, our continuing operations owned and operated networks that passed 7,512,100 homes and served 4,105,900 fixed-line customers and 5,788,800 mobile subscribers.

Competition and Other External Factors

We are experiencing competition in all of the markets in which we or our affiliates operate. This competition, together with macroeconomic and regulatory factors, has adversely impacted our revenue, number of customers and/or average monthly subscription revenue per fixed-line customer or mobile subscriber, as applicable (**ARPU**). For additional information regarding the revenue impact of changes in fixed-line customers and ARPU of our consolidated reportable segments, see *Discussion and Analysis of our Reportable Segments* below.

The global COVID-19 pandemic continues to impact the economies of the countries in which we operate. However, during the second quarter of 2022, the impact on our company continued to be relatively minimal as demand for our products and services remained strong. It is not currently possible to estimate the duration and severity of the COVID-19 pandemic or the adverse economic impact resulting from the preventative measures taken to contain or mitigate its outbreak, therefore no assurance can be given that an extended period of global economic disruption would not have a material adverse impact on our business, financial condition and results of operations in future periods.

Material Changes in Results of Operations

We have completed a number of transactions that impact the comparability of our results of operations, the most notable of which are (i) the U.K. JV Transaction on June 1, 2021, (ii) the sale of UPC Poland on April 1, 2022 and (iii) the Telenet Tower Sale on June 1, 2022. For further information regarding our dispositions, see note 4 to our condensed consolidated financial statements.

In the following discussion, we quantify the estimated impact of material acquisitions (the **Acquisition Impact**) and dispositions 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. With respect to material dispositions, the organic changes that are discussed below reflect adjustments to exclude the historical prior-year results of any disposed entities to the extent that such entities are not included in the corresponding results for the current-year period.

Changes in foreign currency exchange rates have a significant impact on our reported operating results as all of our operating segments have functional currencies other than the U.S. dollar. Our primary exposure to foreign exchange (**FX**) risk during the three months ended June 30, 2022 was to the euro and Swiss franc, as 55.2% and 43.7% of our reported revenue during the period was derived from subsidiaries whose functional currencies are the euro and Swiss franc, respectively. In addition, our reported operating results are impacted by changes in the exchange rates for certain other local currencies in Europe. 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 Consolidated Operating Results* below. For information regarding our foreign currency risks and the applicable foreign currency exchange rates in effect for the periods covered by this Quarterly Report, see Part I, Item 3. *Quantitative and Qualitative Disclosures about Market Risk — Foreign Currency Risk* below.

The amounts presented and discussed below represent 100% of each of our consolidated reportable segment's results of operations. As we have the ability to control Telenet, we consolidate 100% of its revenue and expenses in our condensed consolidated statements of operations despite the fact that third parties own a significant interest. The noncontrolling owners' interests in the operating results of Telenet and other less significant majority-owned subsidiaries are reflected in net earnings or loss attributable to noncontrolling interests in our condensed consolidated statements of operations.

Discussion and Analysis of our Reportable Segments

General

All of our reportable segments derive their revenue primarily from residential and B2B communications 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 condensed consolidated financial statements. For information regarding the results of operations of the VMO2 JV and the VodafoneZiggo JV, refer to *Discussion and Analysis of our Consolidated Operating Results — Share of results of affiliates, net* below.

The tables presented below in this section provide the details of the revenue and Adjusted EBITDA of our consolidated reportable segments for the three and six months ended June 30, 2022 and 2021. These tables present (i) the amounts reported for the current and comparative periods, (ii) the reported U.S. dollar change and percentage change from period to period and (iii) the organic U.S. dollar change and percentage change from period to period. For our organic comparisons, which exclude the impact of FX, we assume that exchange rates remained constant at the prior-period rate during all periods presented. We also provide a table showing the Adjusted EBITDA margins of our consolidated reportable segments for the three and six months ended June 30, 2022 and 2021 at the end of this section.

Consolidated Adjusted EBITDA is a non-GAAP measure, which we believe 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 readily view operating trends from a consolidated view. Investors should view consolidated Adjusted EBITDA as a supplement to, and not a substitute for, GAAP measures of performance included in our condensed consolidated statements of operations.

The following table provides a reconciliation of earnings from continuing operations to Adjusted EBITDA:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Earnings from continuing operations	$ 2,282.2	$ 11,150.9	$ 3,357.9	$ 12,573.6
Income tax expense	63.6	276.8	144.8	442.0
Other income, net	(26.6)	(7.3)	(38.5)	(17.4)
Gain on U.K. JV Transaction	—	(11,138.0)	—	(11,138.0)
Gain on Telenet Tower Sale	(693.3)	—	(693.3)	—
Share of results of affiliates, net	(81.1)	8.1	(311.6)	6.4
Losses (gains) on debt extinguishment, net	(2.8)	90.6	(2.8)	90.6
Realized and unrealized losses (gains) due to changes in fair values of certain investments, net	112.0	(288.1)	205.6	(482.7)
Foreign currency transaction gains, net	(1,148.7)	(131.4)	(1,723.7)	(435.2)
Realized and unrealized losses (gains) on derivative instruments, net	(613.7)	303.1	(1,122.2)	(508.1)
Interest expense	132.9	272.5	267.1	607.2
Operating income	24.5	537.2	83.3	1,138.4
Impairment, restructuring and other operating items, net	58.3	6.8	67.7	51.2
Depreciation and amortization	517.7	555.3	1,082.4	1,162.5
Share-based compensation expense	49.3	99.8	100.7	163.2
Adjusted EBITDA	$ 649.8	$ 1,199.1	$ 1,334.1	$ 2,515.3

Revenue of our Consolidated Reportable Segments

General. While not specifically discussed in the below explanations of the changes in the revenue of our consolidated reportable segments, we are experiencing competition in all of our markets. This competition has an adverse impact on our ability to increase or maintain our total number of customers and/or our ARPU.

Variances in the subscription revenue that we receive from our customers are a function of (i) changes in the number of our fixed-line customers 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 fixed and mobile products within a segment during the period.

Revenue

	Three months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 766.1	$ 825.4	$ (59.3)	(7.2)	$ (2.7)	(0.3)
Belgium	689.1	774.8	(85.7)	(11.1)	5.7	0.7
Ireland	121.5	134.1	(12.6)	(9.4)	3.4	2.5
U.K. (a)	—	1,101.4	(1,101.4)	(100.0)	—	—
Central and Other	180.6	157.0	23.6	15.0	2.1	1.3
Intersegment eliminations	(3.1)	(3.5)	0.4	N.M.	0.4	N.M.
Total	$ 1,754.2	$ 2,989.2	$ (1,235.0)	(41.3)	$ 8.9	0.5

	Six months ended June 30,		Increase (decrease)		Organic increase	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 1,587.5	$ 1,667.2	$ (79.7)	(4.8)	$ 6.2	0.3
Belgium	1,413.5	1,547.5	(134.0)	(8.7)	10.7	0.7
Ireland	249.3	270.2	(20.9)	(7.7)	4.6	1.7
U.K. (a)	—	2,736.4	(2,736.4)	(100.0)	—	—
Central and Other	362.0	277.3	84.7	30.5	20.2	7.3
Intersegment eliminations	(4.8)	(9.5)	4.7	N.M.	4.7	N.M.
Total	$ 3,607.5	$ 6,489.1	$ (2,881.6)	(44.4)	$ 46.4	1.2

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N.M. — Not Meaningful.

(a) The 2021 amounts represent the revenue of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

Switzerland. The details of the decreases in Switzerland's revenue during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, are set forth below:

	Three-month period			Six-month period		
	Subscription revenue	Non-subscription revenue	Total	Subscription revenue	Non-subscription revenue	Total
	in millions					
Decrease in residential fixed subscription revenue due to change in:						
Average number of customers	$ (0.8)	$ —	$ (0.8)	$ (1.8)	$ —	$ (1.8)
ARPU	(11.7)	—	(11.7)	(19.7)	—	(19.7)
Decrease in residential fixed non-subscription revenue (a)	—	(0.1)	(0.1)	—	(5.5)	(5.5)
Total decrease in residential fixed revenue	(12.5)	(0.1)	(12.6)	(21.5)	(5.5)	(27.0)
Increase (decrease) in residential mobile revenue (b)	12.8	(0.7)	12.1	23.5	0.8	24.3
Increase in B2B revenue (c)	1.4	0.2	1.6	0.7	15.5	16.2
Decrease in other revenue	—	(3.8)	(3.8)	—	(7.3)	(7.3)
Total organic increase (decrease)	1.7	(4.4)	(2.7)	2.7	3.5	6.2
Impact of acquisitions	—	(11.1)	(11.1)	—	(23.1)	(23.1)
Impact of FX	(33.7)	(11.8)	(45.5)	(46.2)	(16.6)	(62.8)
Total	$ (32.0)	$ (27.3)	$ (59.3)	$ (43.5)	$ (36.2)	$ (79.7)

(a) The decreases in residential fixed non-subscription revenue are primarily due to lower revenue associated with our Swiss sports channels.

(b) The increases in residential mobile subscription revenue are primarily attributable to increases in the average number of mobile subscribers.

(c) The increases in B2B non-subscription revenue are primarily attributable to the net effect of (i) higher revenue from wholesale services and (ii) lower revenue from telephony services.

Belgium. The details of the decreases in Belgium's revenue during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, are set forth below:

	Three-month period			Six-month period		
	Subscription revenue	Non-subscription revenue	Total	Subscription revenue	Non-subscription revenue	Total
	in millions					
Decrease in residential fixed subscription revenue due to change in:						
Average number of customers	$ (3.9)	$ —	$ (3.9)	$ (9.4)	$ —	$ (9.4)
ARPU	(5.2)	—	(5.2)	(7.7)	—	(7.7)
Increase in residential fixed non-subscription revenue	—	0.8	0.8	—	1.9	1.9
Total increase (decrease) in residential fixed revenue	(9.1)	0.8	(8.3)	(17.1)	1.9	(15.2)
Increase (decrease) in residential mobile revenue (a)	8.3	(2.5)	5.8	16.6	(20.9)	(4.3)
Increase in B2B revenue (b)	3.1	7.3	10.4	7.8	22.3	30.1
Increase (decrease) in other revenue	—	(2.2)	(2.2)	—	0.1	0.1
Total organic increase	2.3	3.4	5.7	7.3	3.4	10.7
Impact of dispositions	—	(0.4)	(0.4)	—	(0.4)	(0.4)
Impact of FX	(67.7)	(23.3)	(91.0)	(107.6)	(36.7)	(144.3)
Total	$ (65.4)	$ (20.3)	$ (85.7)	$ (100.3)	$ (33.7)	$ (134.0)

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(a) The increases in residential mobile subscription revenue are primarily attributable to increases in ARPU. The decreases in residential mobile non-subscription revenue are primarily due to the net effect of (i) lower interconnect revenue and (ii) increases in revenue from handset sales.

(b) The increases in B2B subscription revenue are primarily due to increases in the average number of customers. The increases in B2B non-subscription revenue are primarily attributable to higher revenue from wholesale services and increases in interconnect revenue.

For information concerning certain regulatory developments that could have an adverse impact on our revenue in Belgium, see *Legal and Regulatory Proceedings and Other Contingencies — Belgium Regulatory Developments* in note 15 to our condensed consolidated financial statements.

Ireland. The details of the decreases in Ireland's revenue during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, are set forth below:

	Three-month period			Six-month period		
	Subscription revenue	Non-subscription revenue	Total	Subscription revenue	Non-subscription revenue	Total
	in millions					
Increase (decrease) in residential fixed subscription revenue due to change in:						
Average number of customers	$ (2.1)	$ —	$ (2.1)	$ (3.5)	$ —	$ (3.5)
ARPU	2.2	—	2.2	2.8	—	2.8
Decrease in residential fixed non-subscription revenue	—	(0.1)	(0.1)	—	(0.2)	(0.2)
Total increase (decrease) in residential fixed revenue	0.1	(0.1)	—	(0.7)	(0.2)	(0.9)
Increase (decrease) in residential mobile revenue	1.0	—	1.0	2.1	(0.1)	2.0
Increase (decrease) in B2B revenue	0.2	(0.5)	(0.3)	0.5	—	0.5
Increase in other revenue (a)	—	2.7	2.7	—	3.0	3.0
Total organic increase	1.3	2.1	3.4	1.9	2.7	4.6
Impact of FX	(12.5)	(3.5)	(16.0)	(19.6)	(5.9)	(25.5)
Total	$ (11.2)	$ (1.4)	$ (12.6)	$ (17.7)	$ (3.2)	$ (20.9)

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(a) The increases in other revenue are attributable to higher broadcasting revenue.

Programming and Other Direct Costs of Services, Other Operating Expenses and SG&A Expenses of our Consolidated Reportable Segments

For information regarding the changes in our (i) programming and other direct costs of services, (ii) other operating expenses and (iii) SG&A expenses, see *Discussion and Analysis of our Consolidated Operating Results* below.

Adjusted EBITDA of our Consolidated Reportable Segments

Adjusted EBITDA is the primary measure used by our chief operating decision maker to evaluate segment operating performance. As presented below, consolidated Adjusted EBITDA is a non-GAAP measure, which investors should view as a supplement to, and not a substitute for, GAAP measures of performance included in our condensed consolidated statements of operations. The following table sets forth the Adjusted EBITDA of our consolidated reportable segments:

	Three months ended June 30,		Decrease		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 276.5	$ 298.5	$ (22.0)	(7.4)	$ 0.8	0.5
Belgium	330.3	389.6	(59.3)	(15.2)	(15.3)	(3.9)
Ireland	52.0	54.0	(2.0)	(3.7)	4.8	8.9
U.K. (a)	—	444.9	(444.9)	(100.0)	—	—
Central and Other	(9.4)	9.6	(19.0)	(197.9)	(36.9)	N.M.
Intersegment eliminations	0.4	2.5	(2.1)	N.M.	(2.1)	N.M.
Total	$ 649.8	$ 1,199.1	$ (549.3)	(45.8)	$ (48.7)	(6.3)

	Six months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 577.7	$ 580.1	$ (2.4)	(0.4)	$ 27.5	5.0
Belgium	670.7	761.4	(90.7)	(11.9)	(21.7)	(2.8)
Ireland	102.9	101.6	1.3	1.3	11.9	11.7
U.K. (a)	—	1,085.3	(1,085.3)	(100.0)	—	—
Central and Other	(16.8)	(16.7)	(0.1)	(0.6)	(44.6)	N.M.
Intersegment eliminations	(0.4)	3.6	(4.0)	N.M.	(4.0)	N.M.
Total	$ 1,334.1	$ 2,515.3	$ (1,181.2)	(47.0)	$ (30.9)	(2.2)

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N.M. — Not Meaningful.

(a) The 2021 amounts represent the Adjusted EBITDA of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

Adjusted EBITDA Margin

The following table sets forth the Adjusted EBITDA margins (Adjusted EBITDA divided by revenue) of each of our consolidated reportable segments:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Switzerland	36.1 %	36.2 %	36.4 %	34.8 %
Belgium	47.9 %	50.3 %	47.4 %	49.2 %
Ireland	42.8 %	40.3 %	41.3 %	37.6 %

In addition to organic changes in the revenue, operating and SG&A expenses of our consolidated reportable segments, the Adjusted EBITDA margins presented above include the impact of acquisitions, as applicable. For discussion of the factors contributing to the changes in the Adjusted EBITDA margins of our consolidated reportable segments, see the analysis of our revenue included in *Discussion and Analysis of our Reportable Segments* above and the analysis of our expenses included in *Discussion and Analysis of our Consolidated Operating Results* below.

Discussion and Analysis of our Consolidated Operating Results

Revenue

Our revenue by major category is set forth below:

	Three months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Residential revenue:						
Residential fixed revenue (a):						
Subscription revenue (b):						
Broadband internet	$ 341.2	$ 739.3	$ (398.1)	(53.8)	$ 8.1	2.2
Video	269.4	560.5	(291.1)	(51.9)	(16.7)	(5.3)
Fixed-line telephony	95.6	268.0	(172.4)	(64.3)	(12.4)	(10.5)
Total subscription revenue	706.2	1,567.8	(861.6)	(55.0)	(21.0)	(2.6)
Non-subscription revenue	27.2	46.6	(19.4)	(41.6)	0.7	2.5
Total residential fixed revenue	733.4	1,614.4	(881.0)	(54.6)	(20.3)	(2.5)
Residential mobile revenue (c):						
Subscription revenue (b)	347.0	414.8	(67.8)	(16.3)	22.1	6.3
Non-subscription revenue	115.8	197.0	(81.2)	(41.2)	(3.3)	(2.5)
Total residential mobile revenue	462.8	611.8	(149.0)	(24.4)	18.8	3.9
Total residential revenue	1,196.2	2,226.2	(1,030.0)	(46.3)	(1.5)	(0.1)
B2B revenue (d):						
Subscription revenue	127.3	183.3	(56.0)	(30.6)	4.7	3.4
Non-subscription revenue	209.3	374.1	(164.8)	(44.1)	5.7	2.6
Total B2B revenue	336.6	557.4	(220.8)	(39.6)	10.4	2.9
Other revenue (e)	221.4	205.6	15.8	7.7	—	—
Total	$ 1,754.2	$ 2,989.2	$ (1,235.0)	(41.3)	$ 8.9	0.5

	Six months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Residential revenue:						
Residential fixed revenue (a):						
Subscription revenue (b):						
Broadband internet	$ 701.4	$ 1,642.1	$ (940.7)	(57.3)	$ 21.1	2.9
Video	555.9	1,234.9	(679.0)	(55.0)	(34.4)	(5.4)
Fixed-line telephony	199.5	621.1	(421.6)	(67.9)	(25.3)	(10.5)
Total subscription revenue	1,456.8	3,498.1	(2,041.3)	(58.4)	(38.6)	(2.4)
Non-subscription revenue	52.8	102.4	(49.6)	(48.4)	(3.5)	(5.9)
Total residential fixed revenue	1,509.6	3,600.5	(2,090.9)	(58.1)	(42.1)	(2.5)
Residential mobile revenue (c):						
Subscription revenue (b)	700.2	895.3	(195.1)	(21.8)	42.2	6.0
Non-subscription revenue	261.1	477.2	(216.1)	(45.3)	(20.2)	(6.8)
Total residential mobile revenue	961.3	1,372.5	(411.2)	(30.0)	22.0	2.2
Total residential revenue	2,470.9	4,973.0	(2,502.1)	(50.3)	(20.1)	(0.8)
B2B revenue (d):						
Subscription revenue	260.2	343.0	(82.8)	(24.1)	9.0	3.3
Non-subscription revenue	430.7	803.9	(373.2)	(46.4)	36.7	8.7
Total B2B revenue	690.9	1,146.9	(456.0)	(39.8)	45.7	6.6
Other revenue (e)	445.7	369.2	76.5	20.7	20.8	5.6
Total	$ 3,607.5	$ 6,489.1	$ (2,881.6)	(44.4)	$ 46.4	1.2

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(a) Residential fixed subscription revenue includes amounts received from subscribers for ongoing services and the recognition of deferred installation revenue over the associated contract period. Residential fixed non-subscription revenue includes, among other items, channel carriage fees, 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 fixed 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 $34.6 million and $57.9 million during the three months ended June 30, 2022 and 2021, respectively, and $74.1 million and $135.5 million during the six months ended June 30, 2022 and 2021, respectively.

(d) B2B subscription revenue represents revenue from (i) services provided to SOHO subscribers and (ii) mobile services provided to medium and large enterprises. SOHO subscribers pay a premium price to receive expanded service levels along with broadband internet, video, 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 change in our B2B subscription revenue is attributable to the conversion of certain residential subscribers to SOHO subscribers. B2B non-subscription revenue includes (a) revenue from business broadband internet, video, fixed-line telephony and data services offered to medium and large enterprises and, fixed-line and mobile services on a wholesale basis, to other operators and (b) revenue from long-term leases of portions of our network.

(e) Other revenue includes, among other items, (i) revenue earned from the U.K. JV Services, the NL JV Services and the sale of customer premises equipment to the VodafoneZiggo JV, (ii) broadcasting revenue in Belgium and Ireland and (iii) revenue earned from transitional and other services provided to various third parties.

Total revenue. Our consolidated revenue decreased $1,235.0 million or 41.3% and $2,881.6 million or 44.4% during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021. These decreases include decreases of $1,101.4 million and $2,736.4 million, respectively, attributable to the impact of the U.K. JV Transaction. On an organic basis, our consolidated revenue increased $8.9 million or 0.5% and $46.4 million or 1.2%.

Residential revenue. The details of the decreases in our consolidated residential revenue during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, are as follows:

	Three-month period	Six-month period
	in millions	
Decrease in residential fixed subscription revenue due to change in:		
Average number of customers	$ (7.4)	$ (15.8)
ARPU	(13.6)	(22.8)
Increase (decrease) in residential fixed non-subscription revenue	0.7	(3.5)
Total decrease in residential fixed revenue	(20.3)	(42.1)
Increase in residential mobile subscription revenue	22.1	42.2
Decrease in residential mobile non-subscription revenue	(3.3)	(20.2)
Total organic decrease in residential revenue	(1.5)	(20.1)
Impact of acquisitions and dispositions	(915.5)	(2,310.4)
Impact of FX	(113.0)	(171.6)
Total decrease in residential revenue	$ (1,030.0)	$ (2,502.1)

On an organic basis, our consolidated residential fixed subscription revenue decreased $21.0 million or 2.6% and $38.6 million or 2.4% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily attributable to decreases in Switzerland and Belgium.

On an organic basis, our consolidated residential fixed non-subscription revenue increased (decreased) $0.7 million or 2.5% and ($3.5 million) or (5.9%) during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily due to decreases in Switzerland.

On an organic basis, our consolidated residential mobile subscription revenue increased $22.1 million or 6.3% and $42.2 million or 6.0% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily attributable to increases in Switzerland and Belgium.

On an organic basis, our consolidated residential mobile non-subscription revenue decreased $3.3 million or 2.5% and $20.2 million or 6.8% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily due to decreases in Belgium.

B2B revenue. On an organic basis, our consolidated B2B subscription revenue increased $4.7 million or 3.4% and $9.0 million or 3.3% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily attributable to increases in Belgium.

On an organic basis, our consolidated B2B non-subscription revenue increased $5.7 million or 2.6% and $36.7 million or 8.7% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily due to increases in Belgium and Switzerland.

Other revenue. On an organic basis, our consolidated other revenue remained unchanged during the three months ended June 30, 2022 and increased $20.8 million or 5.6% during the six months ended June 30, 2022, as compared to the corresponding periods in 2021, primarily attributable to the net effect of (i) increases in Central and Other related to (a) revenue earned from the sale of customer premises equipment to the VodafoneZiggo JV and (b) revenue associated with transitional and other services provided, (ii) higher broadcasting revenue in Ireland and (iii) decreases in revenue earned from the NL JV Services.

For additional information regarding the changes in our residential, B2B and other revenue, see *Discussion and Analysis of our Reportable Segments* above.

Programming and other direct costs of services

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, including costs associated with our transitional service agreements. Programming and copyright costs represent a significant portion of our operating costs and are subject to rise in future periods due to various factors, including (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 and (ii) rate increases.

The details of our programming and other direct costs of services are as follows:

	Three months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 226.3	$ 264.3	$ (38.0)	(14.4)	$ (16.3)	(6.4)
Belgium	154.3	168.8	(14.5)	(8.6)	5.8	3.4
Ireland	31.7	36.9	(5.2)	(14.1)	(1.0)	(2.7)
U.K. (a)	—	339.6	(339.6)	(100.0)	—	—
Central and Other	69.2	37.0	32.2	87.0	25.1	67.8
Intersegment eliminations	(0.9)	(2.7)	1.8	N.M.	1.8	N.M.
Total	$ 480.6	$ 843.9	$ (363.3)	(43.1)	$ 15.4	3.0

	Six months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 488.7	$ 546.6	$ (57.9)	(10.6)	$ (20.6)	(3.9)
Belgium	323.3	348.3	(25.0)	(7.2)	7.8	2.2
Ireland	68.2	82.2	(14.0)	(17.0)	(7.1)	(8.7)
U.K. (a)	—	868.1	(868.1)	(100.0)	—	—
Central and Other	138.6	82.9	55.7	67.2	37.3	45.0
Intersegment eliminations	(1.4)	(4.8)	3.4	N.M.	3.4	N.M.
Total	$ 1,017.4	$ 1,923.3	$ (905.9)	(47.1)	$ 20.8	2.0

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N.M. — Not Meaningful.

(a) The 2021 amounts represent the programming and other direct costs of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

Our programming and other direct costs of services decreased $363.3 million or 43.1% and $905.9 million or 47.1% during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021. These decreases include decreases of $339.6 million and $868.1 million, respectively, attributable to the impact of the U.K. JV Transaction. On an organic basis, our programming and other direct costs of services increased $15.4 million or 3.0% and $20.8 million or 2.0%, respectively. These increases are primarily due to the net effect of the following factors:

- Increases in costs of $20.1 million and $32.7 million, respectively, in Central and Other related to the sale of customer premises equipment to the VodafoneZiggo JV;
- Decreases in interconnect and access costs of $16.5 million or 7.9% and $16.9 million or 4.3%, respectively, primarily due to the net effect of (i) lower MVNO costs in Switzerland, (ii) higher leased tower costs in Switzerland and (iii) lower interconnect and mobile roaming costs in Switzerland and Belgium;
- Decreases in programming and copyright costs of $6.9 million or 4.9% and $16.7 million or 5.4%, respectively, attributable to lower costs for certain premium and/or basic content, primarily due to decreases in Switzerland and Ireland that were only partially offset by increases in Belgium;
- Increases of $5.6 million and $11.6 million, respectively, associated with the impact of the classification of costs in connection with the U.K. JV Services provided by Central and Other, which, subsequent to the completion of the U.K. JV Transaction, are classified as direct costs of services. This increase was fully offset by a corresponding decrease in various SG&A expense categories within Central and Other, most notably personnel costs; and
- Increases in mobile handset and other device costs of $4.3 million or 5.7% and $8.5 million or 5.1%, respectively, primarily due to higher sales volumes in Switzerland.

Other operating expenses

Other operating expenses include network operations, customer operations, customer care, share-based compensation and other costs related to our operations. We do not include share-based compensation in the following discussion and analysis of the other operating expenses of our consolidated reportable segments as share-based compensation expense is not included in the performance measures of our consolidated reportable segments. Share-based compensation expense is separately discussed further below.

The details of our other operating expenses are as follows:

	Three months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 105.2	$ 106.0	$ (0.8)	(0.8)	$ 7.9	7.6
Belgium	104.0	113.8	(9.8)	(8.6)	4.1	3.6
Ireland	22.2	24.1	(1.9)	(7.9)	0.9	3.7
U.K. (a)	—	162.3	(162.3)	(100.0)	—	—
Central and Other	34.4	23.9	10.5	43.9	10.1	42.3
Intersegment eliminations	(0.6)	(0.3)	(0.3)	N.M.	(0.3)	N.M.
Total other operating expenses excluding share-based compensation expense	265.2	429.8	(164.6)	(38.3)	$ 22.7	8.4
Share-based compensation expense	2.1	7.6	(5.5)	(72.4)		
Total	$ 267.3	$ 437.4	$ (170.1)	(38.9)		

	Six months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
			in millions, except percentages			
Switzerland	$ 216.3	$ 212.4	$ 3.9	1.8	$ 16.8	8.1
Belgium	214.1	228.5	(14.4)	(6.3)	7.5	3.3
Ireland	44.4	48.5	(4.1)	(8.5)	0.4	0.8
U.K. (a)	—	405.9	(405.9)	(100.0)	—	—
Central and Other	65.1	42.5	22.6	53.2	18.5	43.5
Intersegment eliminations	(1.8)	(0.5)	(1.3)	N.M.	(1.3)	N.M.
Total other operating expenses excluding share-based compensation expense	538.1	937.3	(399.2)	(42.6)	$ 41.9	7.9
Share-based compensation expense	2.4	8.8	(6.4)	(72.7)		
Total	$ 540.5	$ 946.1	$ (405.6)	(42.9)		

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N.M. — Not Meaningful.

(a) The 2021 amounts represent the other operating expenses of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

Our other operating expenses (exclusive of share-based compensation expense) decreased $164.6 million or 38.3% and $399.2 million or 42.6% during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021. These decreases include decreases of $162.3 million and $405.9 million, respectively, attributable to the impact of the U.K. JV Transaction. On an organic basis, our other operating expenses increased $22.7 million or 8.4% and $41.9 million or 7.9%, respectively. These increases are primarily due to the net effect of the following factors:

- Increases in business service costs of $13.4 million or 43.6% and $16.1 million or 25.2%, respectively, primarily due to (i) increases in energy costs in Belgium and Switzerland and (ii) higher consulting costs, primarily in Belgium and Central and Other;

- Increases in personnel costs of $3.9 million or 4.5% and $8.6 million or 5.0%, respectively, primarily due to the net effect of (i) higher average costs per employee, primarily in Belgium, (ii) lower staffing levels, primarily in Switzerland, and (iii) increases in incentive compensation costs in Switzerland;

- Decreases in customer service costs of $4.2 million or 10.1% and $6.3 million or 7.7%, respectively, primarily due to (i) lower customer premises equipment refurbishment costs in Switzerland and Belgium and (ii) lower call center costs, as decreases in Belgium were only partially offset by increases in Switzerland;

- Increases in core network and information technology-related costs of $4.7 million or 7.5% and $5.6 million or 4.6%, respectively, primarily due to higher information technology-related expenses in Central and Other; and

- Increases in other operating expenses due to $4.5 million recognized in Switzerland associated with the sale of CHF 115.0 million ($120.6 million) of handset receivables, the proceeds for which were received subsequent to June 30, 2022. The expense recognized during the second quarter of 2022 represents the difference between the carrying amount of the associated receivables and the amount to be received pursuant to the sale.

SG&A expenses

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 consolidated reportable segments as share-based compensation expense is not included in the performance measures of our consolidated reportable segments. Share-based compensation expense is separately discussed further below.

The details of our SG&A expenses are as follows:

	Three months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 158.1	$ 156.6	$ 1.5	1.0	$ 4.9	3.0
Belgium	100.5	102.6	(2.1)	(2.0)	11.1	10.8
Ireland	15.6	19.1	(3.5)	(18.3)	(1.3)	(6.8)
U.K. (a)	—	154.6	(154.6)	(100.0)	—	—
Central and Other	86.4	86.5	(0.1)	(0.1)	3.8	4.4
Intersegment eliminations	(2.0)	(3.0)	1.0	N.M.	1.0	N.M.
Total SG&A expenses excluding share-based compensation expense	358.6	516.4	(157.8)	(30.6)	$ 19.5	5.3
Share-based compensation expense	47.2	92.2	(45.0)	(48.8)		
Total	$ 405.8	$ 608.6	$ (202.8)	(33.3)		

	Six months ended June 30,		Increase (decrease)		Organic increase (decrease)	
	2022	2021	$	%	$	%
	in millions, except percentages					
Switzerland	$ 304.8	$ 328.1	$ (23.3)	(7.1)	$ (17.5)	(5.2)
Belgium	205.4	209.3	(3.9)	(1.9)	17.1	8.2
Ireland	33.8	37.9	(4.1)	(10.8)	(0.6)	(1.5)
U.K. (a)	—	377.1	(377.1)	(100.0)	—	—
Central and Other	175.1	168.6	6.5	3.9	9.0	5.3
Intersegment eliminations	(1.2)	(7.8)	6.6	N.M.	6.6	N.M.
Total SG&A expenses excluding share-based compensation expense	717.9	1,113.2	(395.3)	(35.5)	$ 14.6	2.0
Share-based compensation expense	98.3	154.4	(56.1)	(36.3)		
Total	$ 816.2	$ 1,267.6	$ (451.4)	(35.6)		

N.M. — Not Meaningful.

(a) The 2021 amounts represent the SG&A expenses of the U.K. JV Entities through the June 1, 2021 closing of the U.K. JV Transaction.

Supplemental SG&A expense information

	Three months ended June 30,		Decrease		Organic increase	
	2022	2021	$	%	$	%
	in millions, except percentages					
General and administrative (a)	$ 282.2	$ 405.9	$ (123.7)	(30.5)	$ 15.9	5.5
External sales and marketing	76.4	110.5	(34.1)	(30.9)	3.6	4.5
Total	$ 358.6	$ 516.4	$ (157.8)	(30.6)	$ 19.5	5.3

	Six months ended June 30,		Decrease		Organic increase	
	2022	2021	$	%	$	%
	in millions, except percentages					
General and administrative (a)	$ 568.3	$ 868.0	$ (299.7)	(34.5)	$ 12.1	2.1
External sales and marketing	149.6	245.2	(95.6)	(39.0)	2.5	1.6
Total	$ 717.9	$ 1,113.2	$ (395.3)	(35.5)	$ 14.6	2.0

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(a) General and administrative expenses include all personnel-related costs within our SG&A expenses, including personnel-related costs associated with our sales and marketing function.

Our SG&A expenses (exclusive of share-based compensation expense) decreased $157.8 million or 30.6% and $395.3 million or 35.5% during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021. These decreases include decreases of $154.6 million and $377.1 million attributable to the impact of the U.K. JV Transaction. On an organic basis, our SG&A expenses increased $19.5 million or 5.3% and $14.6 million or 2.0%, respectively. These increases are primarily attributable to increases in business service costs, primarily due to (i) higher travel and entertainment costs in Central and Other and (ii) higher consulting costs, primarily due to increases in Belgium and for the six-month period, Central and Other, that were only partially offset by decreases in Switzerland.

Share-based compensation expense

Our share-based compensation expense primarily relates to the share-based incentive awards issued by Liberty Global to its employees and employees of its subsidiaries. A summary of our aggregate share-based compensation expense is set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Liberty Global:				
Non-performance based incentive awards (a)	$ 32.1	$ 59.4	$ 65.1	$ 84.8
Performance-based incentive awards (b)	—	14.4	7.1	38.4
Other (c)	3.6	7.6	12.6	15.0
Total Liberty Global	35.7	81.4	84.8	138.2
Other	13.6	18.4	15.9	25.0
Total	$ 49.3	$ 99.8	$ 100.7	$ 163.2
Included in:				
Other operating expense	$ 2.1	$ 7.6	$ 2.4	$ 8.8
SG&A expense	47.2	92.2	98.3	154.4
Total	$ 49.3	$ 99.8	$ 100.7	$ 163.2

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(a) In April 2021, with respect to 2014 and 2015 grants, the compensation committee of our board of directors approved the extension of the expiration dates of outstanding SARs and director options from a seven-year term to a ten-year term. Accordingly, the Black-Scholes fair values of the respective outstanding awards increased, resulting in the recognition of aggregate incremental share-based compensation expense of $22.7 million during the second quarter of 2021.

(b) Includes share-based compensation expense related to (i) our 2019 Challenge Performance Awards and (ii) in the 2021 periods, PSUs and our 2019 CEO Performance Award.

(c) Represents annual incentive compensation and defined contribution plan liabilities that have been or are expected to be settled with Liberty Global ordinary shares. In the case of the annual incentive compensation, shares have been or will be issued to senior management and key employees pursuant to a shareholding incentive program. The shareholding incentive program allows these employees to elect to receive up to 100% of their annual incentive compensation in ordinary shares of Liberty Global in lieu of cash. In addition, amounts include compensation expense related to the Ventures Incentive Plans.

For additional information regarding our share-based compensation expense, see note 13 to our condensed consolidated financial statements.

Depreciation and amortization expense

Our depreciation and amortization expense was $517.7 million and $1,082.4 million for the three and six months ended June 30, 2022, respectively, and $555.3 million and $1,162.5 million for the three and six months ended June 30, 2021, respectively. Excluding the effects of FX, depreciation and amortization expense decreased $43.1 million or 7.8% and $58.9 million or 5.1% during the three and six months ended June 30, 2022, as compared to the corresponding periods in 2021. These decreases are primarily due to the net effect of (i) decreases associated with certain assets becoming fully depreciated, primarily in Central and Other, Switzerland and Belgium, and (ii) increases associated with property and equipment additions, the expansion and upgrade of our networks and other capital initiatives, primarily in Central and Other, Switzerland and Belgium.

Impairment, restructuring and other operating items, net

We recognized impairment, restructuring and other operating items, net, of $58.3 million and $67.7 million during the three and six months ended June 30, 2022, respectively, and $6.8 million and $51.2 million during the three and six months ended June 30, 2021, respectively.

The amounts for the 2022 periods include (i) a $39.6 million provision in Central and Other during the second quarter of 2022 related to a legal contingency, (ii) direct acquisition and disposition costs of $3.5 million and $13.7 million, respectively, primarily in Belgium, and (iii) abandoned lease expense of $13.6 million during the second quarter of 2022, primarily in Switzerland.

The amounts for the 2021 periods include (i) restructuring charges of $26.0 million and $57.3 million, respectively, including $22.0 million and $50.4 million, respectively, of employee severance and termination costs related to certain reorganization activities, primarily in Switzerland and Central and Other, (ii) a $38.0 million gain in Central and Other during the second quarter of 2021 associated with a provision release related to a legal contingency and (iii) direct acquisition and disposition costs of $11.1 million and $29.4 million, respectively, primarily related to costs incurred in connection with the formation of the VMO2 JV.

If, among other factors, (i) our equity values were to decline 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.

Interest expense

We recognized interest expense of $132.9 million and $267.1 million during the three and six months ended June 30, 2022, respectively, and $272.5 million and $607.2 million during the three and six months ended June 30, 2021, respectively.

Excluding the effects of FX, interest expense decreased $112.6 million or 41.3% and $312.9 million or 51.5% during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021. These decreases are primarily attributable to lower average outstanding debt balances and lower weighted average interest rates, largely due to the impact of the U.K. JV Transaction. For additional information regarding our outstanding indebtedness, see note 9 to our condensed consolidated financial statements.

It is possible that the interest rates on (i) any new borrowings could be higher than the current interest rates on our existing indebtedness and (ii) our variable-rate indebtedness could increase in future periods. As further discussed in note 6 to our condensed consolidated financial statements and under *Quantitative and Qualitative Disclosures about Market Risk* below, we use derivative instruments to manage our interest rate risks.

Realized and unrealized gains (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 gains (losses) on derivative instruments, net, are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Cross-currency and interest rate derivative contracts (a)	$ 619.0	$ (297.5)	$ 1,091.3	$ 487.1
Foreign currency forward and option contracts	(5.1)	(6.8)	31.3	(4.7)
Equity-related derivative instruments:				
ITV Collar	—	(1.2)	—	(11.8)
Other	0.1	0.2	0.3	35.3
Total equity-related derivative instruments (b)	0.1	(1.0)	0.3	23.5
Other	(0.3)	2.2	(0.7)	2.2
Total	$ 613.7	$ (303.1)	$ 1,122.2	$ 508.1

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(a) The gains for the 2022 periods are attributable to net gains associated with changes in (i) the relative value of certain currencies and (ii) certain market interest rates. In addition, the results for the 2022 periods include net gains of $4.8 million and $9.3 million, respectively, resulting from changes in our credit risk valuation adjustments. The results for the 2021 periods are primarily attributable to the net effect of (a) net gains associated with changes in certain market interest rates and (b) a net loss for the three-month period and a net gain for the six-month period associated with changes in relative value of certain currencies. In addition, the results for the 2021 periods include a net gain (loss) of $38.2 million and ($0.8 million), respectively, resulting from changes in our credit risk valuation adjustments.

(b) The recurring fair value measurements of our equity-related derivative instruments are based on Black-Scholes pricing models.

For additional information concerning our derivative instruments, see notes 6 and 7 to our condensed consolidated financial statements and Part I, Item 3. *Quantitative and Qualitative Disclosures about Market Risk* below.

Foreign currency transaction gains, 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, net, are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Intercompany payables and receivables denominated in a currency other than the entity's functional currency (a)	$ 1,540.7	$ 14.7	$ 2,324.0	$ 397.5
U.S. dollar-denominated debt issued by euro functional currency entities	(430.6)	47.3	(643.7)	(87.0)
U.S. dollar-denominated debt and Euro debt issued by British pound sterling functional currency entities	—	108.0	—	198.1
Euro-denominated debt issued by British pound sterling functional currency entities	—	(6.4)	—	24.1
Other	38.6	(32.2)	43.4	(97.5)
Total	$ 1,148.7	$ 131.4	$ 1,723.7	$ 435.2

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

Realized and unrealized gains (losses) due to changes in fair values of certain investments, net

Our realized and unrealized gains or losses due to changes in fair values of certain investments include unrealized gains or losses associated with changes in fair values that are non-cash in nature until such time as these gains or losses are realized through cash transactions. For additional information regarding our investments and fair value measurements, see notes 5 and 7, respectively, to our condensed consolidated financial statements. The details of our realized and unrealized gains (losses) due to changes in fair values of certain investments, net, are as follows:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
ITV	$ (112.2)	$ 29.7	$ (279.6)	$ 109.5
Pax8	—	—	79.3	—
Lionsgate	(43.6)	36.8	(46.1)	57.6
EdgeConneX	29.0	4.7	42.5	17.8
Skillz	(7.6)	21.3	(33.7)	21.3
Televisa Univision	21.4	155.4	31.8	155.4
Plume	—	—	—	55.1
Lacework	—	48.8	—	48.8
Other, net (a)	1.0	(8.6)	0.2	17.2
Total	$ (112.0)	$ 288.1	$ (205.6)	$ 482.7

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(a) The 2022 amounts include gains of $11.7 million and $12.0 million for the three and six months ended June 30, 2022, respectively, related to investments that were sold during the second quarter.

Gains (losses) on debt extinguishment, net

We recognized a net gain on debt extinguishment of $2.8 million during the six months ended June 30, 2022 as compared to a net loss on debt extinguishment of $90.6 million during the six months ended June 30, 2021.

The gain during the six months ended June 30, 2022 is attributable to (i) a net gain associated with settlement discounts of $9.8 million, (ii) the write-off of $5.5 million of unamortized deferred financing costs and discounts and (iii) the payment of $1.5 million of third-party costs, all of which occurred during the second quarter.

The loss during the six months ended June 30, 2021 is attributable to (i) the write-off of $77.7 million of unamortized deferred financing costs and discounts and (ii) the payment of $12.9 million of redemption premiums, all of which occurred during the second quarter.

Share of results of affiliates, net

The following table sets forth the details of our share of results of affiliates, net:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
VMO2 JV (a)	$ 30.8	$ (0.3)	$ 217.9	$ (0.3)
VodafoneZiggo JV (b)	83.4	4.7	132.0	9.4
All3Media	(12.2)	(5.8)	(16.9)	(14.8)
Atlas Edge JV	(5.1)	—	(8.1)	—
Formula E	(9.6)	(4.3)	(1.7)	4.4
Other, net	(6.2)	(2.4)	(11.6)	(5.1)
Total	$ 81.1	$ (8.1)	$ 311.6	$ (6.4)

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(a) Represents (i) our 50% share of the results of operations of the VMO2 JV and (ii) 100% of the share-based compensation expense associated with Liberty Global awards held by VMO2 JV employees who were formerly employees of Liberty Global, as these awards remain our responsibility. The summarized results of operations of the VMO2 JV are set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021 (1)	2022	2021 (1)
	in millions			
Revenue	$ 3,202.6	$ 1,208.5	$ 6,600.6	$ 1,208.5
Adjusted EBITDA	$ 1,059.4	$ 411.0	$ 2,454.7	$ 411.0
Operating income	$ 32.7	$ 8.6	$ 319.3	$ 8.6
Non-operating income (loss) (2)	$ 56.4	$ (174.6)	$ 148.4	$ (174.6)
Net earnings (loss)	$ 88.4	$ (34.6)	$ 406.5	$ (34.6)

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(1) Includes the operating results of the VMO2 JV for the period from June 1, 2021 through June 30, 2021.

(2) Includes interest expense of $237.3 million, $79.5 million, $472.3 million and $79.5 million, respectively.

(b) Represents (i) our 50% share of the results of operations of the VodafoneZiggo JV and (ii) interest income of $13.7 million, $13.6 million, $27.8 million and $27.0 million, respectively, representing 100% of the interest earned on the VodafoneZiggo JV Receivables. The summarized results of operations of the VodafoneZiggo JV are set forth below:

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
	in millions			
Revenue	$ 1,065.6	$ 1,215.3	$ 2,195.6	$ 2,432.3
Adjusted EBITDA	$ 490.9	$ 570.1	$ 1,028.7	$ 1,135.3
Operating income	$ 81.7	$ 82.4	$ 191.2	$ 186.7
Non-operating income (expense) (1)	$ 144.0	$ (102.0)	$ 161.5	$ (227.7)
Net earnings (loss)	$ 146.6	$ (15.5)	$ 218.9	$ (31.6)

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(1) Includes interest expense of $143.1 million, $152.5 million, $287.2 million and $304.7 million, respectively.

Gains on the Telenet Tower Sale and the U.K. JV Transaction

In connection with the Telenet Tower Sale, we recognized a pre-tax gain during the three months ended June 30, 2022 of $693.3 million. In connection with the U.K. JV Transaction, we recognized a pre-tax gain during the three months ended June 30, 2021 of $11.1 billion, net of the recognition of a cumulative foreign currency translation loss of $1.2 billion. For additional information, see note 4 to our condensed consolidated financial statements.

Other income, net

We recognized other income, net, of $26.6 million and $7.3 million for the three months ended June 30, 2022 and 2021, respectively, and $38.5 million and $17.4 million during the six months ended June 30, 2022 and 2021, respectively. These amounts include (i) dividend and interest income of $22.0 million and $3.0 million during the three-month periods, respectively, and $25.4 million and $7.0 million during the six-month periods, respectively, and (ii) credits related to the non-service component of our net periodic pension costs of $8.4 million and $7.6 million during the three-month periods, respectively, and $17.3 million and $16.2 million during the six-month periods, respectively.

Income tax expense

We recognized income tax expense of $63.6 million and $144.8 million during the three and six months ended June 30, 2022, respectively, and $276.8 million and $442.0 million during the three and six months ended June 30, 2021, respectively.

The income tax expense during the three and six months ended June 30, 2022 differs from the expected income tax expense of $445.7 million and $665.5 million, respectively (based on the U.K. statutory income tax rate of 19.0%), primarily due to the net positive impacts of (i) non-deductible or non-taxable foreign currency exchange results and (ii) certain permanent differences between the financial and tax accounting treatment of items associated with investments, including the non-taxable gain associated with the Telenet Tower Sale. The net positive impacts of these items was partially offset by the net negative impacts of statutory tax rates in certain jurisdictions in which we operate that are different than the U.K. statutory income tax rates.

The income tax expense during the three and six months ended June 30, 2021 differs from the expected income tax expense of $2,171.3 million and $2,473.0 million, respectively (based on the U.K. statutory income tax rate of 19.0%), primarily due to the positive impacts of the non-taxable gain associated with the U.K. JV Transaction.

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

Earnings from continuing operations

During the three months ended June 30, 2022 and 2021, we reported earnings from continuing operations of $2,282.2 million and $11,150.9 million, respectively, consisting of (i) operating income of $24.5 million and $537.2 million, respectively, (ii) net non-operating income of $2,321.3 million and $10,890.5 million, respectively, and (iii) income tax expense of $63.6 million and $276.8 million, respectively.

During the six months ended June 30, 2022 and 2021, we reported earnings from continuing operations of $3,357.9 million and $12,573.6 million, respectively, consisting of (i) operating income of $83.3 million and $1,138.4 million, respectively, (ii) net non-operating income of $3,419.4 million and $11,877.2 million, respectively, and (iii) income tax expense of $144.8 million and $442.0 million, respectively.

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

Due largely to the fact that we seek to maintain our debt at levels that provide for attractive equity returns, as discussed below under *Material Changes in Financial Condition — Capitalization*, we expect 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 condensed consolidated statements of operations, see *Discussion and Analysis of our Reportable Segments* and *Discussion and Analysis of our Consolidated Operating Results* above.

Earnings from discontinued operations, net of taxes

We reported earnings from discontinued operations, net of taxes, of nil and $23.6 million during the three months ended June 30, 2022 and 2021, respectively, and $34.6 million and $41.2 million during the six months ended June 30, 2022 and 2021, respectively, related to the results of UPC Poland. In addition, we recognized a gain on the sale of UPC Poland of $848.9 million during three months ended June 30, 2022, which includes a cumulative foreign currency translation gain of $10.9 million. For additional information, see note 4 to our condensed consolidated financial statements.

Net earnings attributable to noncontrolling interests

Net earnings attributable to noncontrolling interests increased $298.2 million and $315.3 million during the three and six months ended June 30, 2022, respectively, as compared to the corresponding periods in 2021, primarily attributable to the results of operations of Telenet.

Material Changes in Financial Condition

Sources and Uses of Cash

We are a holding company that is dependent on the capital resources of our subsidiaries to satisfy our liquidity requirements at the corporate level. Each of our significant operating subsidiaries is separately financed within one of our three subsidiary "borrowing groups". These borrowing groups include the respective restricted parent and subsidiary entities within UPC Holding, Telenet and VM Ireland. Although our borrowing groups typically generate cash from operating activities, the terms of the instruments governing the indebtedness of these borrowing groups may restrict our ability to access the liquidity of these subsidiaries. In addition, our ability to access the liquidity of these and other subsidiaries may be limited by tax and legal considerations, the presence of noncontrolling interests and other factors.

Cash and cash equivalents

The details of the U.S. dollar equivalent balances of our consolidated cash and cash equivalents at June 30, 2022 are set forth in the following table (in millions):

Cash and cash equivalents held by:		
Liberty Global and unrestricted subsidiaries:		
Liberty Global (a)	$	53.5
Unrestricted subsidiaries (b)		1,456.8
Total Liberty Global and unrestricted subsidiaries		1,510.3
Borrowing groups (c):		
Telenet		869.6
UPC Holding		10.7
VM Ireland		0.5
Total borrowing groups		880.8
Total cash and cash equivalents	$	2,391.1

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(a) Represents the amount held by Liberty Global on a standalone basis.

(b) Represents the aggregate amount held by subsidiaries that are outside of our borrowing groups.

(c) Represents the aggregate amounts held by the parent entity and restricted subsidiaries of our borrowing groups.

Liquidity of Liberty Global and its unrestricted subsidiaries

The $53.5 million of cash and cash equivalents held by Liberty Global and, subject to certain tax and legal considerations, the $1,456.8 million of aggregate cash and cash equivalents held by unrestricted subsidiaries, together with the $1,824.2 million of investments held under SMAs, represented available liquidity at the corporate level at June 30, 2022. Our remaining cash and cash equivalents of $880.8 million at June 30, 2022 were held by our borrowing groups, as set forth in the table above. As noted above, various factors may limit our ability to access the cash of our borrowing groups. For information regarding certain limitations imposed by our subsidiaries' debt instruments at June 30, 2022, see note 9 to our condensed consolidated financial statements.

Our short-term sources of corporate liquidity include (i) cash and cash equivalents held by Liberty Global and, subject to certain tax and legal considerations, Liberty Global's unrestricted subsidiaries, (ii) investments held under SMAs, (iii) interest and dividend income received on our and, subject to certain tax and legal considerations, our unrestricted subsidiaries' cash and cash equivalents and investments, including dividends received from the VodafoneZiggo JV or the VMO2 JV, (iv) cash received with respect to transitional and other services provided to various third parties and (v) interest payments received with respect to the VodafoneZiggo JV Receivables.

From time to time, Liberty Global and its unrestricted subsidiaries may also receive (i) proceeds in the form of distributions or loan repayments from Liberty Global's borrowing groups or affiliates (including amounts from the VodafoneZiggo JV or the VMO2 JV) upon (a) the completion of recapitalizations, refinancings, asset sales or similar transactions by these entities or (b) the accumulation of excess cash from operations or other means, (ii) proceeds upon the disposition of investments and other assets of Liberty Global and its unrestricted subsidiaries, such as the sale of UPC Poland, and (iii) proceeds in connection with the incurrence of debt by Liberty Global or its unrestricted subsidiaries or the issuance of equity securities by Liberty Global, including equity securities issued to satisfy subsidiary obligations. No assurance can be given that any external funding would be available to Liberty Global or its unrestricted subsidiaries on favorable terms, or at all.

At June 30, 2022, our consolidated cash and cash equivalents balance included $1,956.2 million held by entities that are domiciled outside of the U.K. Based on our assessment of our ability to access the liquidity of our subsidiaries on a tax efficient basis and our expectations with respect to our corporate liquidity requirements, we do not anticipate that tax considerations will adversely impact our corporate liquidity over the next 12 months. Our ability to access the liquidity of our subsidiaries on a tax efficient basis is a consideration in assessing the extent of our share repurchase program.

In addition, the amount of cash we receive from our subsidiaries to satisfy U.S. dollar-denominated liquidity requirements is impacted by fluctuations in exchange rates, particularly with regard to the translation of euros and Swiss francs into U.S. dollars. In this regard, the strengthening (weakening) of the U.S. dollar against these currencies will result in decreases (increases) in the U.S. dollars received from the applicable subsidiaries to fund the repurchase of our equity securities and other U.S. dollar-denominated liquidity requirements.

Our short- and long-term liquidity requirements include corporate general and administrative expenses and, from time to time, cash requirements in connection with (i) the repayment of third-party and intercompany debt, (ii) the satisfaction of contingent liabilities, (iii) acquisitions, (iv) the repurchase of equity and debt securities, (v) other investment opportunities, (vi) any funding requirements of our subsidiaries and affiliates or (vii) income tax payments. In addition, our parent entity uses available liquidity to make interest and principal payments on notes payable to certain of our unrestricted subsidiaries (aggregate outstanding principal of $12.8 billion at June 30, 2022 with varying maturity dates).

During the six months ended June 30, 2022, the aggregate amount of our share repurchases, including direct acquisition costs, was $1,062.0 million. Under our current repurchase program, we are authorized during 2022 to repurchase 10% of our total outstanding shares as of the beginning of the year. In July 2022, our board of directors authorized an additional $400.0 million for 2022 share repurchases. For additional information regarding our share repurchase programs, see note 12 to our condensed consolidated financial statements.

Liquidity of borrowing groups

The cash and cash equivalents of our borrowing groups are detailed in the table above. In addition to cash and cash equivalents, the primary sources of liquidity of our borrowing groups are cash provided by operations and borrowing availability under their respective debt instruments. For the details of the borrowing availability of our borrowing groups at June 30, 2022, see note 9 to our condensed consolidated financial statements. The aforementioned sources of liquidity may be supplemented in certain cases by contributions and/or loans from Liberty Global and its unrestricted subsidiaries.

The liquidity of our borrowing groups generally is used to fund (i) property and equipment additions, (ii) debt service requirements and (iii) income tax payments, as well as to settle certain obligations that are not included on our June 30, 2022 condensed consolidated balance sheet. In this regard, we have significant commitments related to (a) certain operating costs associated with our networks, (b) purchase obligations associated with customer premises equipment and certain service-related commitments and (c) programming, studio output and sports rights contracts. These obligations are expected to represent a significant liquidity requirement of our borrowing groups, a significant portion of which is due over the next 12 to 24 months. For additional information regarding our commitments, see note 15 to our condensed consolidated financial statements.

From time to time, our borrowing groups may also require liquidity in connection with (i) acquisitions and other investment opportunities, (ii) loans to Liberty Global, (iii) capital distributions to Liberty Global and other equity owners or (iv) the satisfaction of contingent liabilities. No assurance can be given that any external funding would be available to our borrowing groups on favorable terms, or at all.

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

Capitalization

We seek to maintain our debt at levels that provide for attractive equity returns without assuming undue risk. In this regard, we generally seek to cause our operating subsidiaries to maintain their debt at levels that result in a consolidated debt balance (measured using subsidiary debt figures at swapped foreign currency exchange rates, consistent with the covenant calculation requirements of our subsidiary debt agreements) that is between four and five times our consolidated Adjusted EBITDA, although the timing of our acquisitions and financing transactions and the interplay of average and spot foreign currency rates may impact this ratio. Consolidated Adjusted EBITDA is a non-GAAP measure, which investors should view as a supplement to, and not a substitute for, GAAP measures of performance included in our condensed consolidated statements of operations.

Our ability to service or refinance our debt and to maintain compliance with the leverage covenants in the credit agreements and indentures of our borrowing groups is dependent primarily on our ability to maintain or increase the Adjusted EBITDA of our operating subsidiaries 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 incurrence-based leverage covenants contained in the various debt instruments of our borrowing groups. For example, if the Adjusted EBITDA of one of our borrowing groups were to decline, our ability to obtain additional debt could be limited. Under our credit facilities and senior and senior secured notes there is no cross-default risk between subsidiary borrowing groups in the event that one or more of our borrowing groups were to experience significant declines in their Adjusted EBITDA to the extent they were no longer able to service their debt obligations. Any mandatory prepayment events or events of default that may occur would only impact the relevant borrowing group in which these events occur and do not allow for any recourse to other borrowing groups or Liberty Global plc. Our credit facilities and senior and senior secured notes require that certain members of the relevant borrowing group guarantee the payment of all sums payable thereunder and such group members are required to grant first-ranking security over their shares or, in certain borrowing groups, over substantially all of their assets to secure the payment of all sums payable thereunder. At June 30, 2022, each of our borrowing groups was in compliance with its debt covenants. In addition, we do not anticipate any instances of non-compliance with respect to the debt covenants of our borrowing groups that would have a material adverse impact on our liquidity during the next 12 months.

At June 30, 2022, the outstanding principal amount of our consolidated debt, together with our finance lease obligations, aggregated $13.3 billion, including $0.8 billion that is classified as current on our condensed consolidated balance sheet and $12.2 billion that is not due until 2028 or thereafter. All of our consolidated debt and finance lease obligations have been borrowed or incurred by our subsidiaries at June 30, 2022.

We believe we have sufficient resources to repay or refinance the current portion of our debt and finance 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 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 and equity markets we access and, accordingly, our future liquidity and financial position. Our ability to access debt financing on favorable terms, or at all, could be adversely impacted by (i) the financial failure of any of our counterparties, which could (a) reduce amounts available under committed credit facilities and (b) adversely impact our ability to access cash deposited with any failed financial institution, and (ii) tightening of the credit markets. In addition, any weakness in the equity markets could make it less attractive to use our shares to satisfy contingent or other obligations, and sustained or increased competition, particularly in combination with adverse economic or regulatory developments, could have an unfavorable impact on our cash flows and liquidity.

For additional information concerning our debt and finance lease obligations, see notes 9 and 10, respectively, to our condensed consolidated financial statements.

Condensed Consolidated Statements of Cash Flows

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

Summary. The condensed consolidated statements of cash flows of our continuing operations for the six months ended June 30, 2022 and 2021 are summarized as follows:

	Six months ended June 30, 2022	Six months ended June 30, 2021	Change
	in millions		
Net cash provided by operating activities	$ 1,363.0	$ 1,850.8	$ (487.8)
Net cash provided (used) by investing activities	2,581.3	(5,407.2)	7,988.5
Net cash used by financing activities	(2,432.0)	(347.3)	(2,084.7)
Effect of exchange rate changes on cash and cash equivalents and restricted cash	(65.3)	14.5	(79.8)
Net increase (decrease) in cash and cash equivalents and restricted cash	$ 1,447.0	$ (3,889.2)	$ 5,336.2

Operating Activities. The decrease in net cash provided by operating activities is primarily attributable to the net effect of (i) a decrease in cash provided by our Adjusted EBITDA and related working capital items, including the impact of the U.K. JV Transaction, (ii) an increase in cash provided due to lower payments of interest, including the impact of the U.K. JV Transaction, (iii) an increase in cash provided due to higher dividends received from the VMO2 JV and the VodafoneZiggo JV and (iv) a decrease due to FX. Consolidated Adjusted EBITDA is a non-GAAP measure, which investors should view as a supplement to, and not a substitute for, GAAP measures of performance included in our condensed consolidated statements of operations.

Investing Activities. The change in net cash provided (used) by investing activities is primarily attributable to (i) an increase in cash of $3,424.0 million as a result of the restricted cash contributed to the VMO2 JV in connection with the U.K. JV Transaction during the first six months of 2021, (ii) an increase in cash of $1,934.0 million associated with higher net cash received from the sale of investments, primarily related to our investments held under SMAs, (iii) an increase in cash of $1,568.1 million in connection with the sale of UPC Poland, (iv) an increase in cash of $779.9 million in connection with the Telenet Tower Sale and (v) an increase in cash of $208.2 million due to lower capital expenditures. Capital expenditures decreased from $842.4 million during the first six months of 2021 to $634.2 million during the first six months of 2022, primarily due to (a) a decrease due to the impact of the U.K. JV Transaction, (b) a decrease due to FX and (c) a decrease in our net local currency capital expenditures and related working capital movements, including the impact of lower capital-related vendor financing.

The capital expenditures we report in our condensed consolidated statements of cash flows do not include amounts that are financed under capital-related vendor financing or finance lease arrangements. Instead, these amounts are reflected as non-cash additions to our property and equipment when the underlying assets are delivered and as repayments of debt when the principal is repaid. In this discussion, we refer to (i) our capital expenditures as reported in our condensed consolidated statements of cash flows, which exclude amounts financed under capital-related vendor financing or finance lease arrangements, and (ii) our total property and equipment additions, which include our capital expenditures on an accrual basis and amounts financed under capital-related vendor financing or finance lease arrangements. For further details regarding our property and equipment additions, see note 16 to our condensed consolidated financial statements. A reconciliation of our consolidated property and equipment additions to our consolidated capital expenditures, as reported in our condensed consolidated statements of cash flows, is set forth below:

	Six months ended June 30,	
	2022	**2021**
	in millions	
Property and equipment additions	$ 717.9	$ 1,321.1
Assets acquired under capital-related vendor financing arrangements	(102.2)	(546.9)
Assets acquired under finance leases	(18.0)	(19.5)
Changes in current liabilities related to capital expenditures	36.5	87.7
Capital expenditures, net	$ 634.2	$ 842.4

The decrease in our property and equipment additions during the six months ended June 30, 2022, as compared to the corresponding period in 2021, is primarily due to (i) a decrease due to the impact of the U.K. JV Transaction, (ii) a decrease due to FX and (iii) a decrease in local currency expenditures of our subsidiaries due to the net effect of (a) an increase in expenditures for the purchase and installation of customer premises equipment, (b) a decrease in baseline expenditures, including network improvements and expenditures for property and facilities and information technology systems, (c) a decrease in expenditures to support new customer products and operational efficiency initiatives and (d) an increase in expenditures for new build and upgrade projects.

Financing Activities. The increase in net cash used by financing activities is primarily attributable to the net effect of (i) an increase in cash used of $1,823.0 million due to higher net repayments of debt, (ii) an increase in cash used of $384.7 million due to higher repurchases of Liberty Global ordinary shares and (iii) a decrease in cash used of $192.5 million due to lower net repayments of vendor financing, including the impact of the U.K. JV Transaction.

Adjusted Free Cash Flow

We define adjusted free cash flow as net cash provided by the operating activities of our continuing operations, plus operating-related vendor financed expenses (which represents an increase in the period to our actual cash available as a result of extending vendor payment terms beyond normal payment terms, which are typically 90 days or less, through non-cash financing activities), less (i) cash payments in the period for capital expenditures, (ii) principal payments on operating- and capital-related amounts financed by vendors and intermediaries (which represents a decrease in the period to our actual cash available as a result of paying amounts to vendors and intermediaries where we previously had extended vendor payments beyond the normal payment terms) and (iii) principal payments on finance leases (which represents a decrease in the period to our actual cash available), each as reported in our condensed consolidated statements of cash flows with each item excluding any cash provided or used by our discontinued operations. Prior to the fourth quarter of 2021, our definition of adjusted free cash flow excluded cash payments for third-party costs directly associated with successful and unsuccessful acquisitions and dispositions. During the fourth quarter of 2021, we changed our definition of adjusted free cash flow to include these cash payments. Cash paid for third-party costs directly associated with successful and unsuccessful acquisitions and dispositions was $22.2 million and $46.5 million during the six months ended June 30, 2022 and 2021, respectively. We believe our presentation of adjusted free cash flow, which is a non-GAAP measure, provides useful information to our investors because this measure can be used to gauge our ability to (a) service debt and (b) fund new investment opportunities after consideration of all actual cash payments related to our working capital activities and expenses that are capital in nature whether paid inside normal vendor payment terms or paid later outside normal vendor payment terms (in which case we typically pay in less than 365 days). Adjusted free cash flow should not be understood to represent our ability to fund discretionary amounts, as we have various mandatory and contractual obligations, including debt repayments, that are not deducted to arrive at these amounts. Investors should view adjusted free cash flow as a supplement to, and not a substitute for, GAAP measures of liquidity included in our condensed consolidated statements of cash flows. Further, our adjusted free cash flow may differ from how other companies define and apply their definition of adjusted free cash flow.

The following table provides the details of our adjusted free cash flow:

	Six months ended June 30,	
	2022	2021
	in millions	
Net cash provided by operating activities of our continuing operations	$ 1,363.0	$ 1,850.8
Operating-related vendor financing additions (a)	231.3	1,474.7
Cash capital expenditures, net	(634.2)	(842.4)
Principal payments on operating-related vendor financing	(319.1)	(1,143.9)
Principal payments on capital-related vendor financing	(78.5)	(689.6)
Principal payments on finance leases	(31.1)	(39.4)
Adjusted free cash flow	$ 531.4	$ 610.2

(a) For purposes of our condensed consolidated statements of cash flows, operating-related vendor financing additions represent operating-related expenses financed by an intermediary that are treated as constructive operating cash outflows and constructive financing cash inflows when the intermediary settles the liability with the vendor. When we pay the financing intermediary, we record financing cash outflows in our consolidated statements of cash flows. For purposes of our adjusted free cash flow definition, we (i) add in the constructive financing cash inflow when the intermediary settles the liability with the vendor as our actual net cash available at that time is not affected and (ii) subsequently deduct the related financing cash outflow when we actually pay the financing intermediary, reflecting the actual reduction to our cash available to service debt or fund new investment opportunities.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

General

The capitalized terms used below have been defined in the notes to our condensed consolidated financial statements. In the following text, the terms “we,” “our,” “our company” and “us” may refer, as the context requires, to Liberty Global or collectively to Liberty Global and its subsidiaries.

We are exposed to market risk in the normal course of our business operations due to our investments in various foreign countries and ongoing investing and financing activities. Market risk refers to the risk of loss arising from adverse changes in foreign currency exchange rates, interest rates and stock prices. The risk of loss can be assessed from the perspective of adverse changes in fair values, cash flows and future earnings. As further described below, we have established policies, procedures and processes governing our management of market risks and the use of derivative instruments to manage our exposure to such risks.

The information in this section should be read in conjunction with the more complete discussion that appears under Part II, Item 7A. *Quantitative and Qualitative Disclosures About Market Risk* in our 10-K. The following discussion updates selected numerical information to June 30, 2022.

Unless otherwise indicated, convenience translations into U.S. dollars are calculated as of June 30, 2022.

Cash

We invest our cash in highly liquid instruments that meet high credit quality standards. We are exposed to exchange rate risk to the extent that the denominations of our cash and cash equivalent balances, revolving lines of credit and other short-term sources of liquidity do not correspond to the denominations of our and our subsidiaries’ short-term liquidity requirements. In order to mitigate this risk, we actively manage the denominations of our cash balances in light of our and our subsidiaries’ forecasted liquidity requirements. At June 30, 2022, $1,204.0 million or 50.4% and $1,162.1 million or 48.6% of our consolidated cash balances were denominated in U.S. dollars and euros, respectively.

Foreign Currency Risk

We are exposed to foreign currency exchange rate risk with respect to our consolidated debt 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. For information regarding our use of derivative instruments to manage our foreign currency exchange rate risk, see note 6 to our condensed consolidated financial statements.

The relationships between the primary currencies of the countries in which we operate and the U.S. dollar, which is our reporting currency, are shown below, per one U.S. dollar:

	June 30, 2022	December 31, 2021
Spot rates:		
Euro	0.9540	0.8782
British pound sterling	0.8212	0.7388
Swiss franc	0.9538	0.9114
Polish zloty	4.4849	4.0285

	Three months ended June 30,		Six months ended June 30,	
	2022	2021	2022	2021
Average rates:				
Euro	0.9393	0.8297	0.9150	0.8296
British pound sterling	0.7963	0.7151	0.7708	0.7202
Swiss franc	0.9648	0.9108	0.9443	0.9078
Polish zloty	4.3666	3.7576	4.2396	3.7633

Interest Rate Risks

We are exposed to changes in interest rates primarily as a result of our borrowing activities, which include fixed-rate and variable-rate borrowings by our borrowing groups. Our primary exposure to variable-rate debt is through the EURIBOR-indexed and LIBOR-indexed debt of our borrowing groups and the variable-rate debt of certain of our other subsidiaries.

In general, we enter into derivative instruments to protect against increases in the interest rates on our variable-rate debt. Accordingly, we have entered into various derivative transactions to manage exposure to increases in interest rates. We use interest rate derivative contracts to exchange, at specified intervals, the difference between fixed and variable interest rates calculated by reference to an agreed-upon notional principal amount. From time to time we also use interest rate cap, floor and collar agreements and swaptions that lock in a maximum interest rate if variable rates rise, but also allow our company to benefit, to a limited extent in the case of collars, from declines in market rates. Under our current guidelines, we use various interest rate derivative instruments to mitigate interest rate risk. The final maturity dates of our various portfolios of interest rate derivative instruments might, in some instances, fall short of the respective maturities of the underlying variable-rate debt. In this regard, we use judgment to determine the appropriate composition and maturity dates of our portfolios of interest rate derivative instruments, taking into account the relative costs and benefits of different maturity profiles in light of current and expected future market conditions, liquidity issues and other factors. For additional information concerning the impacts of these interest rate derivative instruments, see note 6 to our condensed consolidated financial statements.

In July 2017, the U.K. Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. Additionally, the European Money Markets Institute (the authority that administers EURIBOR) announced that measures would need to be undertaken by the end of 2021 to reform EURIBOR to ensure compliance with the E.U. Benchmarks Regulation. In November 2020, ICE Benchmark Administration (the entity that administers LIBOR) announced its intention to continue publishing USD LIBOR rates until June 30, 2023, with the exception of the one-week and two-month rates which, along with all CHF and GBP LIBOR rates, it ceased to publish after December 31, 2021. While this extension allows additional runway on existing contracts using USD LIBOR rates, companies are still encouraged to transition away from using USD LIBOR as soon as practicable and should not enter into new contracts that use USD LIBOR after 2021. The methodology for EURIBOR has been reformed and EURIBOR has been granted regulatory approval to continue to be used. Currently, there is no consensus amongst loan borrowers and investors for what rate(s) should replace USD LIBOR.

In October 2020, the International Swaps and Derivatives Association (the **ISDA**) launched the Fallback Supplement, which, as of January 25, 2021, amended the standard definitions for interest rate derivatives to incorporate fallbacks for derivatives linked to certain key interbank offered rates (**IBORs**). The ISDA also launched the Fallback Protocol, a protocol that enables market participants to incorporate these revisions into their legacy non-cleared derivatives with other counterparties that choose to adhere to the protocol. The fallbacks for a particular currency apply following a permanent cessation of the IBOR in that currency, or in the case of a LIBOR setting, that LIBOR setting becoming permanently unrepresentative, and are adjusted versions of the risk-free rates identified in each currency. Our credit agreements contain provisions that contemplate alternative calculations of the base rate applicable to our LIBOR-indexed and EURIBOR-indexed debt to the extent LIBOR or EURIBOR (as applicable) are not available, which alternative calculations we do not anticipate will be materially different from what would have been calculated under LIBOR or EURIBOR (as applicable). Additionally, no mandatory prepayment or redemption provisions would be triggered under our credit agreements in the event that either the LIBOR rate or the EURIBOR rate is not available. It is possible, however, that any new reference rate that applies to our LIBOR-indexed or EURIBOR-indexed debt could be different from any new reference rate that applies to our LIBOR-indexed or EURIBOR-indexed derivative instruments. For discontinued currencies and tenors, we expect to continue taking steps to mitigate the changes in these benchmark rates, including by amending existing credit agreements and adhering to the Fallback Protocol, where appropriate. We plan to continue to manage this difference and any resulting increased variable-rate exposure through modifications to our debt and/or derivative instruments, however, future market conditions may not allow immediate implementation of desired modifications and our subsidiaries may incur significant associated costs.

Weighted Average Variable Interest Rate. At June 30, 2022, the outstanding principal amount of our variable-rate indebtedness aggregated $8.8 billion, and the weighted average interest rate (including margin) on such variable-rate indebtedness was approximately 3.6%, excluding the effects of interest rate derivative contracts, deferred financing costs, original issue premiums or discounts and commitment fees, all of which affect our overall cost of borrowing. Assuming no change in the amount outstanding, and without giving effect to any interest rate derivative contracts, deferred financing costs, original issue premiums or discounts and commitment fees, a hypothetical 50 basis point (0.50%) increase (decrease) in our weighted average variable interest rate would increase (decrease) our annual consolidated interest expense and cash outflows by $44.0 million. As discussed above and in note 6 to our condensed consolidated financial statements, we use interest rate derivative contracts to manage our exposure to increases in variable interest rates. In this regard, increases in the fair value of these contracts generally would be expected to offset most of the economic impact of increases in the variable interest rates applicable to our indebtedness to the extent and during the period that principal amounts are matched with interest rate derivative contracts.

Sensitivity Information

Information concerning the sensitivity of the fair value of certain of our more significant derivative instruments to changes in market conditions is set forth below. The potential changes in fair value set forth below do not include any amounts associated with the remeasurement of the derivative asset or liability into the applicable functional currency. For additional information, see notes 6 and 7 to our condensed consolidated financial statements.

UPC Holding Cross-currency and Interest Rate Derivative Contracts

Holding all other factors constant, at June 30, 2022:

(i) an instantaneous increase (decrease) of 10% in the value of the Swiss franc relative to the U.S. dollar would have decreased (increased) the aggregate fair value of the UPC Holding cross-currency and interest rate derivative contracts by approximately €426 million ($446 million);

(ii) an instantaneous increase (decrease) of 10% in the value of the Swiss franc relative to the euro would have decreased (increased) the aggregate fair value of the UPC Holding cross-currency and interest rate derivative contracts by approximately €331 million ($347 million); and

(iii) an instantaneous increase (decrease) in the relevant base rate of 50 basis points (0.50%) would have decreased (increased) the aggregate fair value of the UPC Holding cross-currency and interest rate derivative contracts by approximately €112 million ($117 million).

Telenet Cross-currency and Interest Rate Derivative Contracts

Holding all other factors constant, at June 30, 2022:

(i) an instantaneous increase (decrease) of 10% in the value of the euro relative to the U.S. dollar would have decreased (increased) the aggregate fair value of the Telenet cross-currency and interest rate derivative contracts by approximately €318 million ($333 million); and

(ii) an instantaneous increase (decrease) in the relevant base rate of 50 basis points (0.50%) would have decreased (increased) the aggregate fair value of the Telenet cross-currency and interest rate derivative contracts by approximately €91 million ($95 million).

Projected Cash Flows Associated with Derivative Instruments

The following table provides information regarding the projected cash flows associated with our derivative instruments. The U.S. dollar equivalents presented below are based on interest rate projections and exchange rates as of June 30, 2022. These amounts are presented for illustrative purposes only and will likely differ from the actual cash payments or receipts required in future periods. For additional information regarding our derivative instruments, see note 6 to our condensed consolidated financial statements.

	Payments (receipts) due during:							
	Remainder of 2022	**2023**	**2024**	**2025**	**2026**	**2027**	**Thereafter**	**Total**
	in millions							
Projected derivative cash payments (receipts), net:								
Interest-related (a)	$ (70.5)	$ (109.7)	$ (253.4)	$ (238.1)	$ (217.5)	$ (222.6)	$ (256.1)	$ (1,367.9)
Principal-related (b)	—	60.2	—	26.2	44.9	—	(243.3)	(112.0)
Other (c)	(3.5)	1.8	—	—	—	—	—	(1.7)
Total	$ (74.0)	$ (47.7)	$ (253.4)	$ (211.9)	$ (172.6)	$ (222.6)	$ (499.4)	$ (1,481.6)

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(a) Includes (i) the cash flows of our interest rate cap, floor 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.

(c) Includes amounts related to foreign currency forward contracts.

Item 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

In accordance with Rule 13a-15 of the Securities Exchange Act of 1934, as amended (the **Exchange Act**), we carried out an evaluation, under the supervision and with the participation of management, including our chief executive officer and chief financial officer (the **Executives**), of the effectiveness of our disclosure controls and procedures as of June 30, 2022. In designing and evaluating the disclosure controls and procedures, the Executives recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is necessarily required to apply judgment in evaluating the cost-benefit relationship of possible controls and objectives. Based on that evaluation, the Executives concluded that our disclosure controls and procedures as of June 30, 2022 effectively provide reasonable assurance that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

Changes in Internal Controls over Financial Reporting

There have been no changes in our internal controls over financial reporting identified in connection with the evaluation described above that occurred during the fiscal quarter covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II — OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

From time to time, our subsidiaries and affiliates have become involved in litigation relating to claims arising out of their operations in the normal course of business. For additional information, see note 15 to our condensed consolidated financial statements in Part I of this Quarterly Report on Form 10-Q.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

(c) ***Issuer Purchases of Equity Securities***

Period	Total number of shares purchased		Average price paid per share (a)	Total number of shares purchased as part of publicly announced plans or programs	Approximate number of shares that may yet be purchased under the plans or programs
April 1, 2022 through April 30, 2022:					
Class A	—	$	—	—	(b)
Class C	6,457,900	$	25.61	6,457,900	(b)
May 1, 2022 through May 31, 2022:					
Class A	91,500	$	21.96	91,500	(b)
Class C	8,247,300	$	24.18	8,247,300	(b)
June 1, 2022 through June 30, 2022:					
Class A	782,700	$	21.70	782,700	(b)
Class C	7,675,900	$	23.73	7,675,900	(b)
Total — April 1, 2022 through June 30, 2022:					
Class A	874,200	$	21.73	874,200	(b)
Class C	22,381,100	$	24.44	22,381,100	(b)

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(a) Average price paid per share includes direct acquisition costs.

(b) At June 30, 2022, the remaining number of our Class A and/or Class C ordinary shares that we are authorized to repurchase during 2022 was 10.8 million. Based on the average of the respective closing share prices as of June 30, 2022, this would equate to additional share repurchases during the remainder of 2022 of approximately $233.4 million. In July 2022, our board of directors authorized an additional $400.0 million for 2022 share repurchases. For additional information, see note 12 to our condensed consolidated financial statements in Part I of this Quarterly Report on Form 10-Q.

Item 6. EXHIBITS

Listed below are the exhibits filed as part of this Quarterly Report (according to the number assigned to them in Item 601 of Regulation S-K):

4 - Instruments Defining the Rights of Securities Holders, Including Indentures:

4.1	Amendment and Restatement Agreement dated May 23, 2022 between, among others, UPC Broadband Holding B.V. as obligors' agent and The Bank of Nova Scotia as facility agent and security agent and, attached, as a schedule thereto, a copy of the Amended Senior Facilities Agreement dated May 23, 2022 between, among others, UPC Broadband Holding B.V. as borrower and The Bank of Nova Scotia as facility agent and security agent (Incorporated by reference to Exhibit 4.1 to the Registrant's Current report on Form 8-K filed May 25, 2022 (File No. 001-35961)).

31 — Rule 13a-14(a)/15d-14(a) Certification:

31.1	Certification of President and Chief Executive Officer*
31.2	Certification of Executive Vice President and Chief Financial Officer*

32 — Section 1350 Certification**

101.SCH	Inline XBRL Taxonomy Extension Schema Document*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase*
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document*
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)*

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* Filed herewith

** Furnished herewith

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

		LIBERTY GLOBAL PLC
Dated:	July 28, 2022	/s/ MICHAEL T. FRIES
		Michael T. Fries *President and Chief Executive Officer*
Dated:	July 28, 2022	/s/ CHARLES H.R. BRACKEN
		Charles H.R. Bracken *Executive Vice President and Chief Financial Officer*

Exhibit 31.1

CERTIFICATION

I, Michael T. Fries, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Liberty Global plc;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this quarterly report based on such evaluation; and
   d) Disclosed in this quarterly report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 28, 2022

/s/ Michael T. Fries

Michael T. Fries

President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Charles H.R. Bracken, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Liberty Global plc;
2. Based on my knowledge, this quarterly report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this quarterly report;
3. Based on my knowledge, the financial statements, and other financial information included in this quarterly report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this quarterly report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and we have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this quarterly report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this quarterly report based on such evaluation; and
   d) Disclosed in this quarterly report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent function):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 28, 2022

/s/ Charles H.R. Bracken

Charles H.R. Bracken

Executive Vice President and Chief Financial Officer

Exhibit 32

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Liberty Global plc (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report on Form 10-Q for the period ended June 30, 2022 (the "Form 10-Q") of the Company fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 and information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company as of June 30, 2022 and December 31, 2021, and for the three and six months ended June 30, 2022 and 2021.

Dated: July 28, 2022

/s/ Michael T. Fries
Michael T. Fries
President and Chief Executive Officer

Dated: July 28, 2022

/s/ Charles H.R. Bracken
Charles H.R. Bracken
Executive Vice President and Chief Financial Officer

The foregoing certification is being furnished solely pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code) and is not being filed as part of the Form 10-Q or as a separate disclosure document.