LIBERTY GLOBAL PLC
INVESTOR CALL | FULL YEAR 2019

February 14, 2020

“SAFE HARBOR”

Forward-Looking Statements + Disclaimer

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements with respect to our strategies, future growth prospects and opportunities; expectations with respect to our rebased OCF decline, our rebased OFCF growth and our Adjusted FCF; our share buyback program; expectations with respect to cost reductions; expected launch of 5G speeds at Virgin Media; anticipated headwinds in 2020; our medium-term outlook in the U.K. as well as in Switzerland; expected impacts of new leadership at Virgin Media and in Switzerland; expectations with respect to the development, launch and benefits of our innovative and advanced products and services, including gigabit and next generation platform rollouts; the strength of our balance sheet and tenor of our third-party debt; and other information and statements that synergy realization at VodafoneZiggo; expectations with respect to our T+I operations model; are not historical fact. These forward-looking statements involve certain risks and uncertainties that could cause actual results to differ materially from those expressed or implied by these statements. These risks and uncertainties include events that are outside of our control, such as the continued use by subscribers and potential subscribers of our and our affiliates’ services and their willingness to upgrade to our more advanced offerings; our and our affiliates’ ability to meet challenges from competition, to manage rapid technological change or to maintain or increase rates to subscribers or to pass through increased costs to subscribers; the effects of changes in laws or regulation; the effects of the U.K.'s exit from the E.U.; general economic factors; our and our affiliates’ ability to obtain regulatory approval and satisfy regulatory conditions associated with acquisitions and dispositions; our and affiliates’ ability to successfully acquire and integrate new businesses and realize anticipated efficiencies from acquired businesses; the availability of attractive programming for our and our affiliates’ video services and the costs associated with such programming; our and our affiliates’ ability to achieve forecasted financial and operating targets; the outcome of any pending or threatened litigation; the ability of our operating companies and affiliates to access cash of their respective subsidiaries; the impact of our operating companies' and affiliates’ future financial performance, or market conditions generally, on the availability, terms and deployment of capital; fluctuations in currency exchange and interest rates; the ability of suppliers, vendors and contractors to timely deliver quality products, equipment, software, services and access; our and our affiliates’ ability to adequately forecast and plan future network requirements including the costs and benefits associated with network expansions; and other factors detailed from time to time in our filings with the Securities and Exchange Commission, including our most recently filed Form 10-K. These forward-looking statements speak only as of the date of this release. 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 change in events, conditions or circumstances on which any such statement is based.

Presentation of Continuing & Discontinuing Operations:

On July 31, 2018, we sold our operations in Austria. On May 2, 2019, we sold our UPC DTH operations, which provide direct-to-home satellite services in Hungary, the Czech Republic, Romania and Slovakia. On July 31, 2019, we sold our operations in Germany, Hungary, Romania and the Czech Republic. Our operations in Germany, Hungary, Romania and the Czech Republic, along with our former UPC DTH operations and operations in Austria are collectively referred to herein as the “Discontinued Operations” and have all been accounted for as discontinued operations in our December 31, 2019 Form 10-K.

On February 27, 2019, we entered into a share purchase agreement (the SPA) to sell our operations in Switzerland (UPC Switzerland) to Sunrise Communications Group AG (Sunrise). On November 12, 2019, Sunrise terminated the SPA, which resulted in our company receiving a $50.4 million cash termination fee.

Additional Information Relating to Defined Terms:

Please refer to the Appendix at the end of this presentation, as well as our press release dated February 13, 2020 and our SEC filings, for the definitions of the following terms which may be used herein, including: Rebased Growth, Operating Cash Flow (“OCF”), Adjusted Free Cash Flow (“FCF”), Operating Free Cash Flow (“OFCF”), Revenue Generating Units (“RGUs”), Average Revenue per Unit (“ARPU”), as well as non-GAAP reconciliations, where applicable. .

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2019 HIGHLIGHTS

1 Exceeded FCF guidance

- Achieved all other 2019 guidance targets
- Operating strategy in place
- Cost reductions on track

2 Closed $21bn Vodafone transaction in July

- $11bn of total liquidity at Dec. 31, including $8bn of cash

3 Repurchased record $3.2bn of stock

- New $1 billion buyback announced

4 Positioned for strategic value creation in core markets

- FMC + network optimization + FCF

2019 Continuing Operations
(Including Switzerland)

FINANCIALS	ACTUAL	YOY GROWTH
Rebased Revenue	$11.5bn	(0.6%)
Rebased OCF	$4.9bn	(3.1%)
P&E Additions	$2.9bn	(22.3%)
Rebased OFCF	$2.0bn	34.5%
PF Adjusted FCF	$770m[(1)]	98.1%

OPERATIONS	ACTUAL	YOY GROWTH
Customer Net Adds	(74k)	+37k
Fixed Net Adds	(209k)	(239k)
Postpaid Mobile Net adds	+496k	+167k
Fixed Customer ARPU	$59.46	+0.8%

(1) Based on reported Adjusted FCF including PF adjustments

VIRGIN MEDIA OPERATING UPDATE

Significant OFCF growth through efficient deployment of capital; focused on implementing mid-term growth plan

KEY OPERATING RESULTS(1)

2019

+7k
CUSTOMER NET ADDS

(109k)
FIXED RGU NET ADDS

+266k
POSTPAID MOBILE NET ADDS

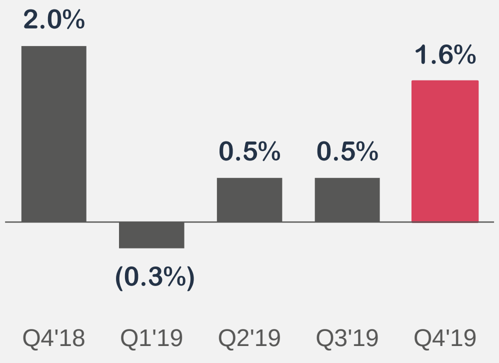
+0.4%
REVENUE

(2.3%)
OCF

+26%
OFCF

CUSTOMER ARPU GROWTH YOY

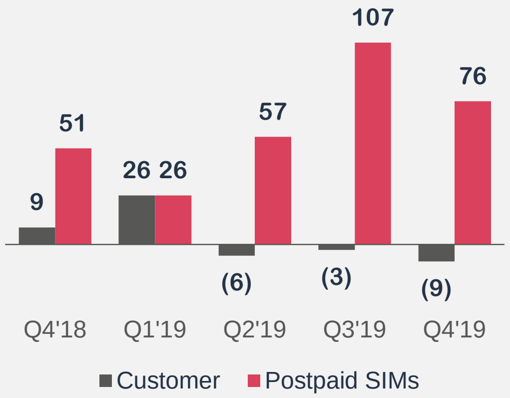
Fixed



- **Price rise** landed in line with expectations
- **Rental ARPU**(2) up 2.3% YoY
- **Subscription ARPU** continues to be impacted by lower voice usage and highly competitive promotional landscape

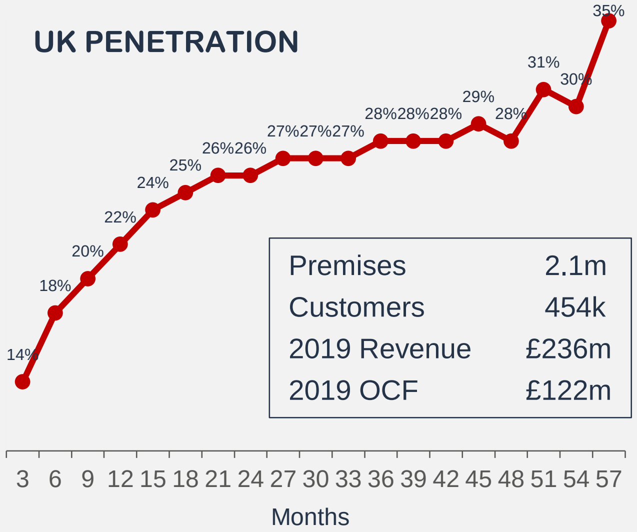
CUSTOMER NET ADDS (000s)

Fixed/Mobile



- **Modest Q4 fixed customer loss** due to disciplined acquisitions and retentions as competitor discounting increases
- **Customer churn down** sequentially, similar to prior year
- **FMC bundles** complement seasonally strong postpaid adds
- **FMC %** up 170 bps YoY to 21.2%

PROJECT LIGHTNING



- **Added 505k** premises in 2019
- Continues to drive **attractive returns**
- **CPP trending down**, ~£620 in 2019

(1) Revenue, OCF and OFCF growth rates presented on a rebased basis as applicable. OFCF includes centrally-held opex allocations but does not include centrally-held P&E Additions
(2) Rental ARPU is subscription ARPU less out-of-bundle telephony and pay-per-view usage

VIRGIN MEDIA: LOOKING FORWARD

Implementing mid-term growth plan, addressing cost headwinds and exploring strategic options

CHALLENGES

External Headwinds

- Ofcom “out-of-contract” notification (goes into effect Feb 15)
- Broadband “business rates” tax increase

Operating Headwinds

- Programming cost inflation

Total Headwinds

- OCF impact of ~£100 million anticipated in 2020

GROWTH DRIVERS

Strength of Network

- Gigabit rollout underway, (completion by YE 2021)

Extend FMC Leadership

- Vodafone MVNO enables 5G launch and better economics

Commitment to Customers

- Loyalty program: speed boost to 100Mbps for 1m customers
- Digital initiatives underway to improve customer experience and reduce costs

B2B Wholesale Opportunity

- More dark fibre/backhaul sales

NETWORK STRATEGY

Exploring strategic options to expand network and optimize FCF

- Incremental 7-10 million U.K. premises (~80% of U.K.)
- Established Liberty Networks to pursue FTTP build using PIA
- Reviewing off-balance sheet structures
- Considering wholesale arrangements to drive network utilization and valuation

VODAFONEZIGGO JV (1)

Robust 2019 results underpinned by solid execution of FMC strategy

2019 KEY RESULTS

(32k)
CUSTOMER NET ADDS

(78k)
FIXED RGU NET ADDS

+269k
POSTPAID MOBILE NET ADDS

+1.1%
REVENUE

+4.4%
OCF

+14%
OFCF

€469m
JV FCF(2)

KEY DRIVERS OF SUCCESS

1 NETWORK QUALITY & SPEED LEADERSHIP

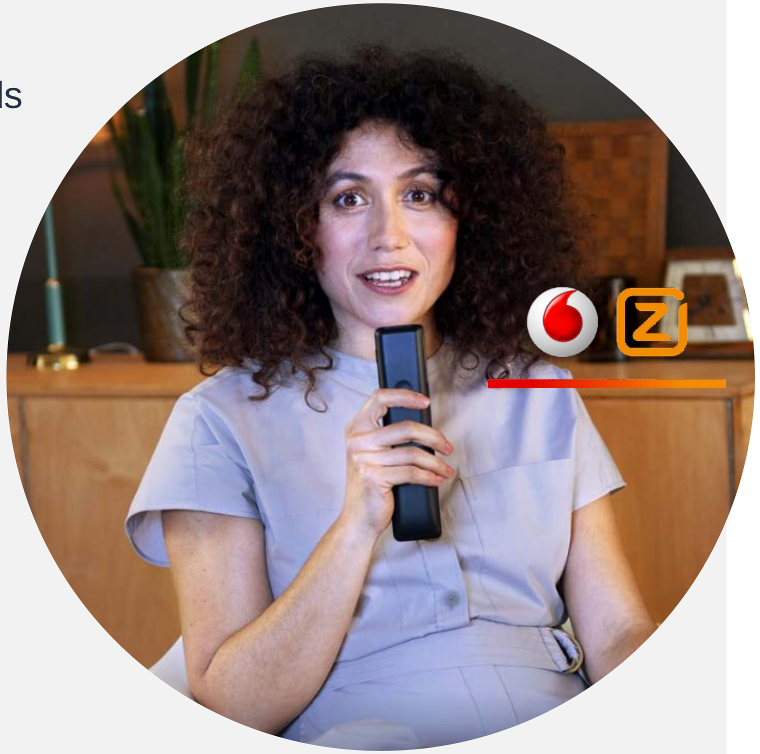
- Nationwide 1Gbps broadband rollout by end of 2021
- #1 fixed consumer broadband provider in the Netherlands

2 NEXT-GENERATION SET TOP & EXCLUSIVE CONTENT

- Rolling out next-generation video platform
- Game-changing exclusive content highlighted by Ziggo Sport and HBO

3 SUCCESSFUL EXECUTION OF FMC STRATEGY

- Enhancing the value of all FMC bundles
- 40% of households now converged; FMC customers churn less & have higher NPS scores
- 85% of €210m synergy target achieved at YE '19; expect full realization one year ahead of plan



(1) Our 50/50 joint venture is not consolidated
(2) Does not include interest on shareholder loans of E90 million, of which, E45 million (our 50% share) is included in our PF Adjusted FCF result

UPC SWITZERLAND

Significant OFCF generation despite turnaround investments

2019 KEY RESULTS (1)

(74k)
CUSTOMER NET ADDS

(119k)
FIXED RGU NET ADDS

+54k
POSTPAID MOBILE NET ADDS

(3.5%)
REVENUE

(10.3%)
OCF

CHF296m
OFCF (2)

KEY INITIATIVES

1 TAKING SPEED TO THE NEXT LEVEL

- 1Gbps broadband rolled out across footprint ahead of schedule
- UPC customers averaging 300Mbps

2 TRANSFORMING TV PROPOSITION

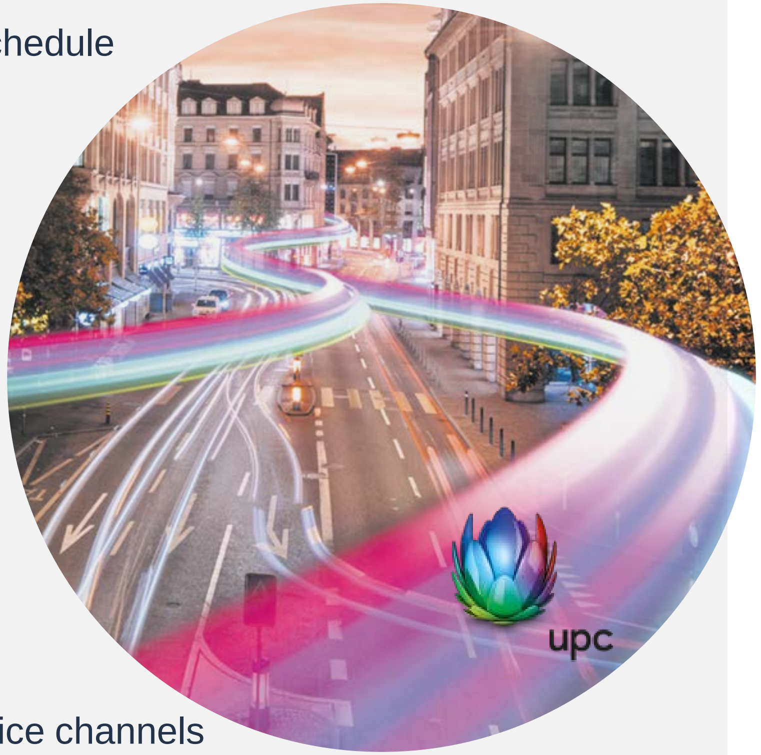
- Rolled out UPC TV box to 58% of STB base
- NPS significantly higher than legacy platform

3 DRIVING FMC INTO THE BASE

- 19% of broadband base converged; +5% YoY
- Mobile base now ~200k

4 INVESTING IN DIGITIZATION

- Transforming the operating model & IT architecture
- Structurally improving customer journeys and sales/service channels
- Double digit improvement in customer interactions and improved NPS



(1) Revenue, OCF and OFCF growth rates presented on a rebased basis as applicable. OFCF includes both centrally-held opex allocations and centrally-held P&E attributions.
(2) Includes attribution of centrally-held P&E of CHF52m

KEY PRIORITIES 2020

- Navigate headwinds and exploit opportunities in UK
- Continue execution of Swiss turnaround plan
- Optimize free cash flow across all assets
- Maintain focus on value creation strategies

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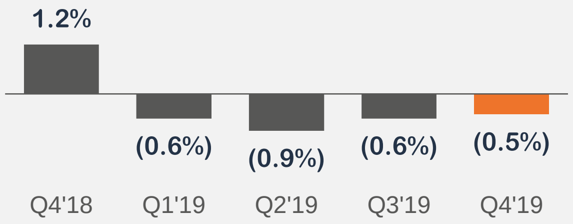
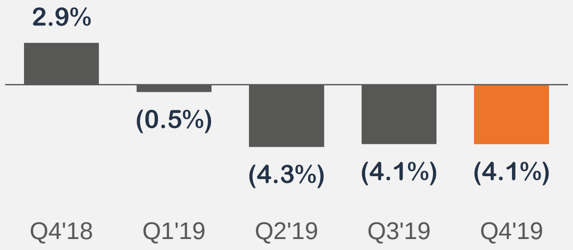
GROUP OVERVIEW

Stable top line; OCF growth impacted by U.K. headwinds; ~$11bn of total liquidity

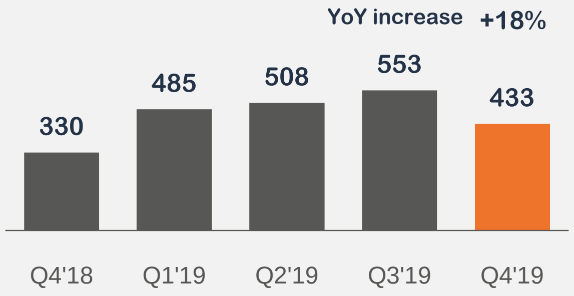
REVENUE GROWTH[1]
(Continuing Operations including Switzerland)



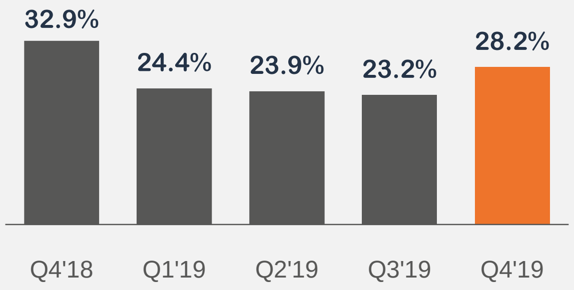
OCF GROWTH[1]
(Continuing Operations including Switzerland)



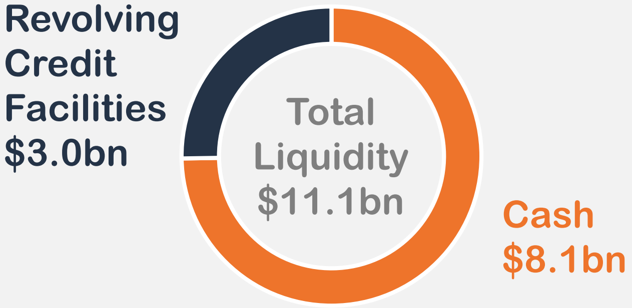
OFCF[1] ($mm)
(Continuing Operations including Switzerland)



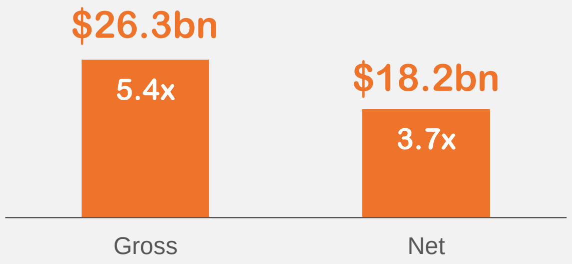
P&E ADDITIONS (as % of Revenue)
(Continuing Operations including Switzerland)



LIQUIDITY[2]



LEVERAGE[3]
(LTM basis)



(1) Revenue, OCF and OFCF growth rates presented on a rebased basis after internal recharges
(2) Liquidity refers to our consolidated cash and cash equivalents plus the maximum undrawn commitments under our subsidiaries' borrowing facilities without regard to covenant compliance calculations
(3) Debt balances presented on swapped basis, taking into account derivative positions. Commencing from this quarter, we have modified our definition of leverage to incorporate the Last Twelve Months (LTM) of OCF. Under the previous methodology of Last Quarter Annualised (LQA) the gross and net leverage ratios would have been 5.2x and 3.6x respectively at December 31, 2019.

CENTRAL UPDATE

Cost reductions are on track, T&I OFCF fully attributed

$m	2018	2019
Central Opex [1]	$536	$509
Central Capex	524	380
Total Central Cost	**$1,060**	**$889**
Of which:		
T&I	~$800	~$660
Corporate	~$260	~$230

T&I OPERATING MODEL

$660m cost base serves both retained operations and partner markets

- Targeting ~$600m for 2020
- Split ~50/50 between retained operations and partner networks (TSAs)

>$300m of TSA Revenue from partners in 2020; will offset 100% of partner network costs

- Will decline over next 4-5 years; aiming for commensurate cost reductions

Fully hedging with outsource agreements:

- Signed with Infosys in February
- Transfer of internal labor and third party costs related to TSA fulfilment
- Makes cost base easier to flex

(1) Excludes low-margin sales of CPE

DIVISIONAL OVERVIEW

Strong OFCF conversion post Centrally-held P&E attributions

For the year ended Dec 31, 2019 (in millions)	U.K. & IRELAND	BELGIUM	SWITZERLAND	50-50 DUTCH JV [2,3]
REVENUE	$6,600	$2,893	$1,259	$4,408
Rebased revenue growth	*0.4%*	*(1.2%)*	*(3.5%)*	*1.1%*
OCF	$2,801	$1,386	$628	$1,988
Rebased OCF growth	*(2.3%)*	*(2.0%)*	*(10.3%)*	*4.4%*
% Revenue	42%	48%	50%	45%
OFCF (including attribution of Central P&E) [1]	$1,086	$838	$298	$1,100
of which Lightning Construction Capex [4]	$390			
% Revenue	22% [5] / 16% [6]	29%	24%	25%

(1) For information on our centrally-held P&E attributions, see the appendix included in our Q4 2019 Liberty Global earnings release
(2) Represents 100% of the non-consolidated Dutch JV
(3) OCF for the Dutch JV as shown in the table above includes $121 million of FSA charges from Liberty Global with the corresponding amount recognized as revenue within our Central segment.
(4) Includes direct build, capitalized labor & planning. Excludes Customer Premises Equipment
(5) Excluding lightning construction Capex
(6) Including lightning construction Capex

PRO FORMA ADJUSTED FCF [1]

FY 2019 slightly above guidance; $50 million UPC Switzerland break fee not included in Adjusted FCF

$m	FY 2019	Comments
OCF [1]	$4,949	
P&E	(2,880)	Includes $390m of Lightning CPP capex
OFCF[1]	$2,069	
INTEREST / DERIVS [1]	(1,118)	Includes $75m of interest income
CASH TAX	(358)	Includes one-off $72m US settlement
VODAFONE ZIGGO JV (Dividend & Interest)	214	Excludes shareholder principal loan repayment of €100m
	$807	
WORKING CAPITAL [2]	(37)	Broadly flat as targeted
PF ADJUSTED FCF [1] [3]	$770	vs guidance $700 – 750m

(1) Pro forma Adjusted FCF including Switzerland incorporates our preliminary estimate of (i) the interest and related derivative payments made by UPC Holding associated with our discontinued UPC operations in Hungary, Romania and the Czech Republic and (ii) the net cash flows that we would have received from transitional services agreements if the sale of the Discontinued Operations had occurred on January 1, 2019.
(2) Includes working capital, operational finance (vendor finance) and restructuring
(3) Based on reported Adj. FCF including PF adjustments

2020 OUTLOOK[1]

OFCF and Adjusted FCF growth despite OCF challenges

Rebased OCF	Mid-single-digit decline	UK impacted by regulation and cost headwinds Swiss OCF impacted by turnaround plan TSA revenue fully rebased, no benefit to growth
Rebased OFCF	Mid-single-digit growth	P&E spend declines across all operations Switzerland growth P&E moderating
Adjusted FCF[2]	~30% YoY growth to ~$1 billion	Includes Lightning construction capex

(1) A reconciliation of our Adjusted FCF guidance for 2020 to a U.S. GAAP measure is not provided as not all elements of the reconciliation are projected as part of our forecasting process, as certain items may vary significantly from one period to another.

(2) Based on EUR/USD 1.13; GBP/USD 1.33

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REBASE INFORMATION

For purposes of calculating rebased growth rates on a comparable basis for all businesses that we owned during 2019, we have adjusted our historical revenue, OCF and OFCF for the three months and year ended December 31, 2018 to (i) include the pre-acquisition revenue, OCF and P&E additions of entities acquired during 2019 in our rebased amounts for the three months and year ended December 31, 2018 to the same extent that the revenue, OCF and P&E additions of these entities are included in our results for the three months and year ended December 31, 2019, (ii) include revenue and costs for the temporary elements of transitional and other services provided to the VodafoneZiggo JV, Vodafone, Deutsche Telekom (the buyer of UPC Austria), Liberty Latin America and M7 Group (the buyer of UPC DTH), to reflect amounts related to these services equal to those included in our results for the three months and year ended December 31, 2019 and (iii) reflect the translation of our rebased amounts for the three months and year ended December 31, 2018 at the applicable average foreign currency exchange rates that were used to translate our results for the three months and year ended December 31, 2019. We have reflected the revenue, OCF and P&E additions of these acquired entities in our 2018 rebased amounts based on what we believe to be the most reliable information that is currently available to us (generally pre-acquisition financial statements), as adjusted for the estimated effects of (a) any significant differences between U.S. GAAP and local generally accepted accounting principles, (b) any significant effects of acquisition accounting adjustments, (c) any significant differences between our accounting policies and those of the acquired entities and (d) other items we deem appropriate. We do not adjust pre-acquisition periods to eliminate nonrecurring items or to give retroactive effect to any changes in estimates that might be implemented during post-acquisition periods. As we did not own or operate the acquired businesses during the pre-acquisition periods, no assurance can be given that we have identified all adjustments necessary to present the revenue, OCF and OFCF of these entities on a basis that is comparable to the corresponding post-acquisition amounts that are included in our historical results or that the pre-acquisition financial statements we have relied upon do not contain undetected errors. The adjustments reflected in our rebased amounts have not been prepared with a view towards complying with Article 11 of Regulation S-X. In addition, the rebased growth percentages are not necessarily indicative of the revenue, OCF and OFCF that would have occurred if these transactions had occurred on the dates assumed for purposes of calculating our rebased amounts or the revenue, OCF and OFCF that will occur in the future. The rebased growth percentages have been presented as a basis for assessing growth rates on a comparable basis, and are not presented as a measure of our pro forma financial performance.

The following table provides adjustments made to the 2018 amounts to derive our rebased growth rates for our continuing operations:

	Revenue		OCF		OFCF	
	Three months ended December 31, 2018	Year ended December 31, 2018	Three months ended December 31, 2018	Year ended December 31, 2018	Three months ended December 31, 2018	Year ended December 31, 2018
	in millions					
Acquisitions	$ 40.7	$ 96.9	$ 9.1	$ 14.6	$ 9.1	$ 12.2
Dispositions(i)	33.4	87.7	27.7	71.3	27.7	71.3
Foreign Currency	(27.4)	(531.6)	(10.8)	(225.0)	(0.3)	(58.4)
Total increase (decrease)	$ 46.7	$ (347.0)	$ 26.0	$ (139.1)	$ 36.5	$ 25.1

(i) Includes rebase adjustments related to agreements to provide transitional and other services to the VodafoneZiggo JV, Vodafone, Liberty Latin America, Deutsche Telekom and M7 Group. These adjustments result in an equal amount of fees in both the 2019 and 2018 periods for those services that are deemed to be temporary in nature. The net amount of these adjustments resulted in increases in revenue of $33.6 million and $88.4 million and OCF of $28.0 million and $73.9 million for the three months and year ended December 31, 2018, respectively.

GLOSSARY

10-Q or 10-K: As used herein, the terms 10-Q and 10-K refer to our most recent quarterly or annual report as filed with the Securities and Exchange Commission on Form 10-Q or Form 10-K, as applicable.

Adjusted Free Cash Flow (FCF): net cash provided by our operating activities, plus (i) cash payments for third-party costs directly associated with successful and unsuccessful acquisitions and dispositions and (ii) expenses financed by an intermediary, less (a) capital expenditures, as reported in our consolidated statements of cash flows, (b) principal payments on amounts financed by vendors and intermediaries and (c) principal payments on finance leases (exclusive of the portions of the network lease in Belgium that we assumed in connection with certain acquisitions), with each item excluding any cash provided or used by our Discontinued Operations. We believe that our presentation of Adjusted Free Cash Flow provides useful information to our investors because this measure can be used to gauge our ability to service debt and fund new investment opportunities. 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, which are not deducted to arrive at this amount. Investors should view Adjusted Free Cash Flow as a supplement to, and not a substitute for, U.S. GAAP measures of liquidity included in our consolidated statements of cash flows.

The following table provides a reconciliation of our net cash provided by operating activities from continuing operations to Adjusted Free Cash Flow for the indicated periods. In addition, in order to provide information regarding our Adjusted Free Cash Flow that excludes the Discontinued Operations, we also present Adjusted Free Cash Flow on a pro forma basis for the three months and year ended December 31, 2019 as if the sale of the Discontinued Operations had been completed on January 1, 2019.

	Three months ended December 31,		Year ended December 31,	
	2019	2018	2019	2018
	in millions			
Continuing operations:				
Net cash provided by operating activities	$ 1,493.9	$ 1,277.5	$ 3,714.1	$ 3,985.0
Cash payments (receipts) for direct acquisition and disposition costs[i]	(37.0)	9.0	(13.5)	23.0
Expenses financed by an intermediary[ii]	532.2	459.8	2,171.4	1,883.7
Capital expenditures, net	(343.0)	(314.5)	(1,243.1)	(1,453.0)
Principal payments on amounts financed by vendors and intermediaries	(865.5)	(340.0)	(3,934.7)	(4,258.0)
Principal payments on certain finance leases	(5.9)	(13.9)	(62.9)	(72.9)
Adjusted FCF	$ 774.7	$ 1,077.9	631.3	$ 107.8
Pro forma adjustments related to the sale of the Discontinued Operations:				
Interest and derivative payments[iii]			49.6	
Transitional services agreements[iv]			89.2	
Pro forma Adjusted FCF[v]			$ 770.1	

i. The 2019 amounts include an adjustment to exclude from adjusted free cash flow a $50.4 million cash receipt associated with a termination fee received from Sunrise Communications Group AG during the fourth quarter in connection with the termination of a share purchase agreement to sell our operations in Switzerland.

ii. For purposes of our consolidated statements of cash flows, expenses financed by an intermediary are treated as hypothetical operating cash outflows and hypothetical financing cash inflows when the expenses are incurred. When we pay the financing intermediary, we record financing cash outflows in our consolidated statements of cash flows. For purposes of our Adjusted Free Cash Flow definition, we add back the hypothetical operating cash outflow when these financed expenses are incurred and deduct the financing cash outflows when we pay the financing intermediary.

iii. Represents the estimated interest and related derivative payments made by UPC Holding associated with our discontinued UPC Holding operations in Hungary, Romania and the Czech Republic during the applicable period. These estimated payments are calculated based on Hungary, Romania and the Czech Republic's pro rata share of UPC Holding's OCF and UPC Holding's aggregate interest and derivative payments during the applicable period. Although we believe this adjustment to interest and related derivative payments results in a reasonable estimate of the annual ongoing interest and related derivative payments that will occur in relation to the continuing UPC Holding operations, no assurance can be given that the actual interest and derivative payments will be equivalent to the amounts presented. No pro forma adjustments were required with respect to Unitymedia's interest and derivative payments as substantially all of Unitymedia's debt and related derivative instruments were direct obligations of the entities being disposed. As a result, the interest and related derivative payments associated with such debt and derivative instruments of Unitymedia are included in discontinued operations.

iv. Represents our preliminary estimate of the net cash flows that we would have received from transitional services agreements if the sale of the Discontinued Operations had occurred on January 1, 2019. The estimated net cash flows are based on the estimated revenue that we expect to recognize from our transitional services agreements during the first 12 months following the completion of the sale of the Discontinued Operations, less the estimated incremental costs that we expect to incur to provide such transitional services. As a result, the pro forma adjustments during the year ended December 31, 2019 include $88.2 million related to our discontinued operations in Germany, Hungary, Romania and the Czech Republic and $1.0 million related to our discontinued DTH business.

v. Represents the Adjusted FCF that we estimate would have resulted if the sale of the Discontinued Operations had been completed on January 1, 2019. Actual amounts may differ from the amounts assumed for purposes of this pro forma calculation. For example, our Pro forma Adjusted FCF does not include any future benefits related to reductions in our corporate costs as a result of our operating model rationalization or any other potential future operating or capital cost reductions attributable to our continuing or discontinued operations.

GLOSSARY

VodafoneZiggo JV Free Cash Flow (JV FCF): defined as net cash provided by the operating activities, plus (i) expenses financed by an intermediary and (ii) interest payments on shareholder loans, less (a) capital expenditures, (b) principal payments on amounts financed by vendors and intermediaries and (c) principal payments on finance leases. We believe that the presentation of Adjusted Free Cash Flow provides useful information to our investors because this measure can be used to gauge VodafoneZiggo's ability to service debt, distribute cash to parent entities and fund new investment opportunities. Free cash flow, which is a non-GAAP measure, should not be understood to represent VodafoneZiggo's ability to fund discretionary amounts, as it has various mandatory and contractual obligations, including debt repayments, that are not deducted to arrive at this amount. Investors should view free cash flow as a supplement to, and not a substitute for, GAAP measures of liquidity included in VodafoneZiggo's condensed consolidated statements of cash flows within its bond report. For purposes of its standalone reporting obligations, VodafoneZiggo prepares its consolidated financial statements in accordance with accounting principles generally accepted in the U.S. (GAAP).

Adjusted Free Cash Flow is a non-GAAP measure as contemplated by the U.S. Securities and Exchange Commission. A reconciliation of JV FCF for 2019 is provided below.

	Year ended December 31, 2019	
	in millions	
Net cash provided by operating activities	€	1,311.2
Expenses financed by an intermediary		652.3
Interest payments on shareholder loans		89.9
Capital expenditures, net		(320.9)
Principal payments on amounts financed by vendors and intermediaries		(1,253.4)
Principal payments on finance leases		(9.7)
Adjusted FCF	€	469.4

ARPU: Average Revenue Per Unit is the average monthly subscription revenue per average cable customer relationship or mobile subscriber, as applicable. Following the adoption of ASU 2014-09, subscription revenue excludes interconnect fees, channel carriage fees, mobile handset sales and late fees, but includes the amortization of installation fees. Prior to the adoption of ASU 2014-09, installation fees were excluded from subscription revenue. ARPU per average cable customer relationship is calculated by dividing the average monthly subscription revenue from residential cable and SOHO services by the average number of fixed-line customer relationships for the period. ARPU per average mobile subscriber is calculated by dividing residential mobile and SOHO revenue for the indicated period by the average number of mobile subscribers for the period. Unless otherwise indicated, ARPU per cable customer relationship or mobile subscriber is not adjusted for currency impacts. ARPU per RGU refers to average monthly revenue per average RGU, which is calculated by dividing the average monthly subscription revenue from residential and SOHO services for the indicated period, by the average number of the applicable RGUs for the period. Unless otherwise noted, ARPU in this release is considered to be ARPU per average cable customer relationship or mobile subscriber, as applicable. Fixed-line customer relationships, mobile subscribers and RGUs of entities acquired during the period are normalized. In addition, for purposes of calculating the percentage change in ARPU on a rebased basis, we adjust the prior-year subscription revenue, fixed-line customer relationships, mobile subscribers and RGUs, as applicable, to reflect acquisitions, dispositions, FX and the January 1, 2018 adoption of the new revenue recognition standard (ASU 2014-09, Revenue from Contracts with Customers) on a comparable basis with the current year, consistent with how we calculate our rebased growth for revenue and OCF.

ARPU per Mobile Subscriber: Our ARPU per mobile subscriber calculation that excludes interconnect revenue refers to the average monthly mobile subscription revenue per average mobile subscriber and is calculated by dividing the average monthly mobile subscription revenue (excluding handset sales and late fees) for the indicated period, by the average of the opening and closing balances of mobile subscribers in service for the period. Our ARPU per mobile subscriber calculation that includes interconnect revenue increases the numerator in the above-described calculation by the amount of mobile interconnect revenue during the period.

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

Blended fully-swapped debt borrowing cost: the weighted average interest rate on our aggregate variable- and fixed-rate indebtedness (excluding finance leases and including vendor financing obligations), including the effects of derivative instruments, original issue premiums or discounts and commitment fees, but excluding the impact of financing costs.

B2B: Business-to-Business.

Customer Churn: the rate at which customers relinquish their subscriptions. The annual rolling average basis is calculated by dividing the number of disconnects during the preceding 12 months by the average number of customer relationships. For the purpose of computing churn, a disconnect is deemed to have occurred if the customer no longer receives any level of service from us and is required to return our equipment. A partial product downgrade, typically used to encourage customers to pay an outstanding bill and avoid complete service disconnection, is not considered to be disconnected for purposes of our churn calculations. Customers who move within our cable footprint and upgrades and downgrades between services are also excluded from the disconnect figures used in the churn calculation.

GLOSSARY

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

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

Fixed-Mobile Convergence (FMC): Fixed-mobile convergence penetration represents the number of customers who subscribe to both a fixed broadband internet service and postpaid mobile telephony service, divided by the total number of customers who subscribe to our fixed broadband internet service.

Homes Passed: homes, residential multiple dwelling units or commercial units that can be connected to our networks without materially extending the distribution plant. Certain of our Homes Passed counts are based on census data that can change based on either revisions to the data or from new census results.

Internet Subscriber: a home, residential multiple dwelling unit or commercial unit that receives internet services over our networks, or that we service through a partner network. Our Internet Subscribers do not include customers that receive services from dial-up connections.

Leverage and Liquidity: Our debt and net debt ratios defined as total debt and net debt, respectively, divided by OCF of the last twelve months (LTM OCF). Prior to December 31,2019, we presented our debt and net debt ratios under an annualized OCF approach using the OCF from the most recent quarter. Net debt is defined as total debt less cash and cash equivalents. For purposes of these calculations, debt is measured using swapped foreign currency rates, consistent with the covenant calculation requirements of our subsidiary debt agreements, and excludes the loans backed or secured by the shares we hold in ITV plc and Lions Gate Entertainment Corp.

Liquidity refers to cash and cash equivalents plus the maximum undrawn commitments under subsidiary borrowing facilities, without regard to covenant compliance calculations.

MDU: Multiple Dwelling Unit.

Mobile Subscriber Count: the number of active SIM cards in service rather than services provided. For example, if a mobile subscriber has both a data and voice plan on a smartphone this would equate to one mobile subscriber. Alternatively, a subscriber who has a voice and data plan for a mobile handset and a data plan for a laptop would be counted as two mobile subscribers. Customers who do not pay a recurring monthly fee are excluded from our mobile telephony subscriber counts after periods of inactivity ranging from 30 to 90 days, based on industry standards within the respective country. In a number of countries, our mobile subscribers receive mobile services pursuant to prepaid contracts.

MVNO: Mobile Virtual Network Operator.

NPS: Net Promoter Score.

OCF: As used herein, OCF has the same meaning as the term "Adjusted OIBDA" that is referenced in our 10-K. OCF is the primary measure used by our chief operating decision maker to evaluate segment operating performance. OCF is also a key factor that is used by our internal decision makers to (i) determine how to allocate resources to segments and (ii) evaluate the effectiveness of our management for purposes of annual and other incentive compensation plans. As we use the term, OCF is defined as operating income before depreciation and amortization, share-based compensation, provisions and provision releases related to significant litigation and impairment, restructuring and other operating items. Other operating items include (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 OCF is a meaningful measure because it represents a transparent view of our recurring operating performance that is unaffected by our capital structure and allows management to (1) readily view operating trends, (2) perform analytical comparisons and benchmarking between segments and (3) identify strategies to improve operating performance in the different countries in which we operate. We believe our OCF measure is useful to investors because it is one of the bases for comparing our performance with the performance of other companies in the same or similar industries, although our measure may not be directly comparable to similar measures used by other public companies. OCF should be viewed as a measure of operating performance that is a supplement to, and not a substitute for, operating income, net earnings or loss, cash flow from operating activities and other U.S. GAAP measures of income or cash flows. A reconciliation of our operating income to total OCF for our continuing operations is presented in the following table:

	Three months ended December 31,		Year ended December 31,	
	2019	2018	2019	2018
	in millions			
Operating income	$ 282.5	$ 252.4	$ 745.5	$ 839.1
Share-based compensation expense	77.5	75.0	305.8	206.0
Depreciation and amortization	897.9	924.0	3,652.2	3,858.2
Impairment, restructuring and other operating items, net	15.9	50.2	156.0	248.2
Total OCF	$ 1,273.8	$ 1,301.6	$ 4,859.5	$ 5,151.5

GLOSSARY

OCF margin: calculated by dividing OCF by total revenue for the applicable period.

OFCF: As used herein, Operating Free Cash Flow or "OFCF" represents OCF less property and equipment additions. OFCF is an additional metric that we use to measure the performance of our operations after considering the level of property and equipment additions incurred during the period. For limitations of OFCF, see the definition of OCF.

A reconciliation of our total OCF to total OFCF for our continuing operations is presented in the following table:

	Three months ended December 31,		Year ended December 31,	
	2019	2018	2019	2018
	in millions			
Total OCF	$ 1,273.8	$ 1,301.6	$ 4,859.5	$ 5,151.5
Property and equipment additions	(840.4)	(971.4)	(2,880.5)	(3,705.6)
Total OFCF	$ 433.4	$ 330.2	$ 1,979.0	$ 1,445.9

OFCF margin: OFCF margin is calculated by dividing OFCF by total revenue for the applicable period.

Property and equipment additions (P&E additions): includes capital expenditures on an accrual basis, amounts financed under vendor financing or finance lease arrangements and other non-cash additions.

Rental ARPU: subscription ARPU less out-of-bundle telephony usage and pay-per-view

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

SIM: Subscriber Identification Module

SOHO: Small or Home Office Subscribers

Telephony Subscriber: a home, residential multiple dwelling unit or commercial unit that receives voice services over our networks, or that we service through a partner network. Telephony Subscribers exclude mobile telephony subscribers.

U.S. GAAP: Accounting principles generally accepted in the United States.

YoY: Year-over-year.

APPENDIX

CENTRALLY-HELD OPERATING COST ALLOCATIONS

During the fourth quarter of 2019, we changed the presentation of certain operating costs related to our centrally-managed technology and innovation function. These costs, which were previously included in Central and Corporate, are now allocated to our consolidated reportable segments. This change, which we refer to as the "Centrally-held Operating Cost Allocations", was made as a result of internal changes with respect to the way in which our chief operating decision maker evaluates the OCF of our operating segments. Segment information for all periods presented has been revised in our reported U.S. GAAP disclosures to reflect this change. The following table provides a summary of the impact on the OCF of our consolidated reportable segments and Central and Corporate that resulted from the Centrally-held Operating Cost Allocations.

	Year ended December 31,		
	2019	2018	2017
		in millions	
Increase (decrease) to OCF:			
U.K./Ireland	$ (66.6)	$ (61.7)	$ (52.8)
Switzerland	(33.0)	(36.7)	(32.3)
Continuing CEE	(14.7)	(15.5)	(13.4)
Central and Corporate	114.3	113.9	98.5
Total Liberty Global	$ —	$ —	$ —

APPENDIX

CENTRALLY-HELD P&E ATTRIBUTIONS / ATTRIBUTED OFCF

Property and equipment additions presented for Central and Corporate include certain capital costs incurred for the benefit of our operating segments. Generally, for purposes of the consolidated financial statements of our borrowing groups, the expense associated with these capital costs is allocated and/or charged to our operating segments as related-party fees and allocations in their respective statements of operations over the period in which the operating segment benefits from the use of the Central and Corporate asset. Related-party fees and allocations are excluded from the reported OCF metric of these borrowing groups. These amounts are based on (i) our estimate of its share of underlying costs, (ii) our estimate of its share of the underlying costs plus a mark-up or (iii) commercially-negotiated rates. These charges and allocations differ from the attributed OFCF approach, as further described below.

For internal management reporting and capital allocation purposes, we evaluate the OFCF of our operating segments on an "attributed" basis, whereby we estimate and attribute certain capital costs incurred by Central and Corporate to our operating segments as if that operating segment directly incurred its estimated share of the capital costs in the same period the costs were incurred by Central and Corporate. These capital costs represent assets that are jointly used by our operating segments. In the context of evaluating our operating segments, we believe this non-GAAP approach, which we refer to as the "Centrally-held Property and Equipment Attributions", is a meaningful measure as it represents a transparent view of what the estimated capital spend for our operating segments might be if they were to operate as a stand-alone business (excluding, among other considerations, any impact from lost economies of scale) and allows us to more accurately (i) review capital trends by operating segment, (ii) perform benchmarking between operating segments and (iii) drive alignment and accountability between Central and Corporate and our operating segments with respect to our consolidated capital spend. The amounts attributed to each operating segment are estimated based on (a) actual costs incurred by Central and Corporate, without any mark-up, and (b) each respective operating segment's estimated use of the associated assets.

A reconciliation of our OCF to attributed OFCF, including Centrally-held Property and Equipment Attributions, consistent with our internal management reporting approach, of (i) our operating segments and (ii) consolidated continuing operations is presented in the following table. This presentation is for illustrative purposes only and is intended as a supplement to, and not a substitute for, our U.S. GAAP presentation of the property and equipment additions of our reportable segments.

	Year ended December 31, 2019					
	U.K. & Ireland	Belgium	Switzerland	CEE	Central & Corporate	Continuing Operations (1)
	in millions					
OCF (including centrally-held operating cost allocations)	$ 2,800.5	$ 1,386.1	$ 627.9	$ 215.0	$ (171.1)	$ 4,859.5
Property & equipment additions	(1,578.0)	(537.2)	(277.9)	(107.0)	(380.4)	(2,880.5)
Centrally-held P&E Attribution	(136.5)	(11.3)	(52.1)	(26.9)	226.8	-
Attributed OFCF (including attribution of Centrally-held P&E)	$ 1,086.0	$ 837.6	$ 297.9	$ 81.1	$ (324.7)	$ 1,979.0

(1) Continuing operations includes intersegment eliminations