

TELUS CORPORATION
Management's discussion and analysis
2017 Q3

Caution regarding forward-looking statements

This document contains forward-looking statements about expected events and the financial and operating performance of TELUS Corporation. The terms *TELUS*, *the Company*, *we*, *us* and *our* refer to TELUS Corporation and, where the context of the narrative permits or requires, its subsidiaries.

Forward-looking statements include any statements that do not refer to historical facts. They include, but are not limited to, statements relating to our objectives and our strategies to achieve those objectives, our targets, outlook, updates, our multi-year dividend growth program, and our normal course issuer bid. Forward-looking statements are typically identified by the words *assumption*, *goal*, *guidance*, *objective*, *outlook*, *strategy*, *target* and other similar expressions, or future or conditional verbs such as *aim*, *anticipate*, *believe*, *could*, *expect*, *intend*, *may*, *plan*, *predict*, *seek*, *should*, *strive* and *will*.

By their nature, forward-looking statements are subject to inherent risks and uncertainties and are based on assumptions, including assumptions about future economic conditions and courses of action. These assumptions may ultimately prove to have been inaccurate and, as a result, our actual results or events may differ materially from our expectations expressed in or implied by the forward-looking statements. An update to our assumptions for 2017 is presented in *Section 9 Update to assumptions* in this Management’s discussion and analysis (MD&A).

Risks and uncertainties that could cause actual performance or events to differ materially from the forward-looking statements made herein and in other TELUS filings include, but are not limited to, the following:

- **Competition** including: our ability to continue to retain customers through an enhanced customer service experience, including through the deployment and operation of evolving wireless and wireline networks; the ability of industry competitors to successfully launch their respective platforms and to combine a mix of residential local voice over Internet protocol (VoIP), long distance, high-speed Internet access (HSIA) and, in some cases, wireless services under one bundled and/or discounted monthly rate, along with their existing broadcast or satellite-based TV services; the success of new products, new services and supporting systems, such as Internet of Things (IoT) services for Internet-connected devices; continued intense rivalry across all services among wireless and wireline telecommunications companies, cable-TV providers, other communications companies and over-the-top (OTT) services, which, among other things, places pressures on average revenue per subscriber unit per month (ARPU), cost of acquisition, cost of retention and churn for all services, as do customer usage patterns, flat-rate pricing trends for voice and data, inclusive rate plans for voice and data and availability of Wi-Fi networks for data; mergers and acquisitions of industry competitors; pressures on high-speed Internet and TV ARPU and churn resulting from market conditions, government actions and customer usage patterns; residential and business network access line (NAL) losses; subscriber additions and retention volumes, and associated costs for wireless, TV and high-speed Internet services; and our ability to obtain and offer content on a timely basis across multiple devices on wireless and TV platforms at a reasonable cost.
- **Technological substitution** including: reduced utilization and increased commoditization of traditional wireline voice local and long distance services from impacts of OTT applications and wireless substitution, a declining overall market for paid TV services; the increasing number of households that have only wireless and/or Internet-based telephone services; potential wireless ARPU declines as a result of, among other factors, substitution to messaging and OTT applications; substitution to increasingly available Wi-Fi services; and disruptive technologies such as OTT IP services, such as Network as a Service in the business market, that may displace our existing data services.
- **Technology** including: subscriber demand for data that may challenge wireless networks and spectrum capacity levels in the future; our reliance on information technology and our need to streamline our legacy systems; technology options, evolution paths and roll-out plans for wireless and wireline networks (including broadband initiatives, such as fibre to the premises (FTTP), wireless small-cell deployment, 5G wireless and availability of resources and ability to build out adequate broadband capacity); our reliance on wireless network access agreements, which have facilitated our deployment of wireless technologies; choice of suppliers and those suppliers’ ability to maintain and service their product lines, which could affect the success of upgrades to and evolution of technology that we offer; supplier concentration and market power for network equipment, TELUS TV[®] and wireless handsets; the performance of wireless technology; our expected long-term need to acquire additional spectrum capacity through future spectrum auctions and from third parties to address increasing demand for data; deployment and operation of new wireline broadband networks at a reasonable cost and availability and success of new products and services to be rolled out on such networks; network reliability and change management; and uncertainties around our strategy to replace certain legacy wireline networks, systems and services to reduce operating costs.
- **Capital expenditure levels and potential outlays for spectrum licences in spectrum auctions or from third parties**, due to: our broadband initiatives, including connecting more homes and businesses directly to fibre; our ongoing deployment of newer wireless technologies, including wireless small cells to improve coverage and capacity and prepare for a more efficient and timely evolution to 5G wireless services; utilizing acquired spectrum; investments in network resiliency and reliability; subscriber demand for data; evolving systems and business processes; implementing efficiency initiatives; supporting large complex deals; and future wireless spectrum auctions held by Innovation, Science and Economic Development Canada (ISED). Our capital expenditure levels could be impacted if we do not achieve our targeted operational and financial results.

- Regulatory decisions and developments including: the potential of government intervention to further increase wireless competition; the CRTC wireless wholesale services review, in which it was determined that the CRTC will regulate wholesale GSM-based domestic roaming rates and the setting of such rates charged to wireless service providers (WSPs); the Governor in Council’s request to the CRTC to reconsider whether Wi-Fi networks could count as a home network for WSPs seeking mandated roaming; future spectrum auctions and spectrum policy determinations (including limitations on established wireless providers, proposed spectrum set-aside that favours certain carriers and other advantages provided to new and foreign participants, and the amount and cost of spectrum acquired); restrictions on the purchase, sale and transfer of spectrum licences; the undetermined long-term impact of the CRTC’s wireline wholesale services review; disputes with certain municipalities regarding rights-of-way bylaws; the potential impacts from the CRTC’s decision to require pro-rated refunds when customers terminate their services; the CRTC’s examination of the competitor quality of service regime; the CRTC’s examination of the regulatory framework for message relay service; the CRTC’s proposed phase-out of the local service subsidy regime and corresponding establishment of a broadband funding regime to support the enhancement of high-speed Internet services focusing on underserved areas in Canada; the impact from the review of the Minister of Canadian Heritage’s new Creative Canada policy framework announced on September 28, 2017; the CRTC’s consultation and report on distribution models of the future; vertical integration in the broadcasting industry resulting in competitors owning broadcast content services and timely and effective enforcement of related regulatory safeguards; the review of the *Copyright Act* scheduled to begin in fall 2017; the federal government’s stated intention to review the *Broadcasting Act* and *Telecommunications Act* as announced in the March 22, 2017 federal budget; the North American Free Trade Agreement renegotiation; and restrictions on non-Canadian ownership of TELUS Common Shares and the ongoing monitoring and compliance with such restrictions.
- Human resource matters including: recruitment, retention and appropriate training in a highly competitive industry, and the level of employee engagement.
- Process and business combination risks including: our reliance on legacy systems and ability to implement and support new products and services and business operations; our ability to implement effective change management for system replacements and upgrades, process redesigns and business integrations (such as our ability to successfully integrate acquisitions, complete divestitures or establish partnerships in a timely manner, and realize expected strategic benefits including following compliance with any regulatory orders), the risk that Manitoba Telecom Services Inc.’s postpaid wireless customers acquired by us from BCE Inc. may not be successfully migrated; the implementation of complex large enterprise deals that may be adversely impacted by available resources, system limitations and degree of co-operation from other service providers; our ability to successfully manage operations in foreign jurisdictions; information security and privacy breaches, including data loss or theft of data; intentional threats to our infrastructure and business operations; and real estate joint venture re-development risks.
- Ability to successfully implement cost reduction initiatives and realize planned savings, net of restructuring and other costs, without losing customer service focus or negatively affecting business operations. Examples of these initiatives are: our operating efficiency and effectiveness program to drive improvements in earnings before interest, income taxes, depreciation and amortization (EBITDA), including the future benefits of the immediately vesting transformative compensation initiative; business integrations; business product simplification; business process outsourcing; offshoring and reorganizations, including any full-time equivalent (FTE) employee reduction programs; procurement initiatives; and real estate rationalization. Additional revenue and cost efficiency and effectiveness initiatives will continue to be assessed and implemented.
- Financing and debt requirements including our ability to carry out financing activities and our ability to maintain investment grade credit ratings in the range of BBB+ or the equivalent.
- Ability to sustain our dividend growth program through 2019. This program may be affected by factors such as the competitive environment, economic performance in Canada, our earnings and free cash flow, our levels of capital expenditures and spectrum licence purchases, acquisitions, the management of our capital structure, and regulatory decisions and developments. Quarterly dividend decisions are subject to assessment and determination by our Board of Directors (Board) based on the Company’s financial position and outlook. Shares may be purchased under our normal course issuer bid (NCIB) when and if we consider it opportunistic, based on the Company’s financial position and outlook, and the market price of TELUS shares. There can be no assurance that our dividend growth program or any NCIB will be maintained, not changed and/or completed through 2019.
- Taxation matters including: interpretation of complex domestic and foreign tax laws by the tax authorities that may differ from our interpretations; including the timing of income and deductions such as tax depreciation and operating expenses; changes in tax laws, including tax rates; tax expenses being materially different than anticipated including the taxability of income and deductibility of tax attributes; elimination of income tax deferrals through the use of different tax year-ends for operating partnerships and corporate partners; and tax authorities adopting more aggressive auditing practices for example, tax reassessments or adverse court decisions impacting the tax payable by us.
- Litigation and legal matters including: our ability to successfully respond to investigations and regulatory proceedings and defend against claims and lawsuits, including intellectual property infringement claims and class actions pending against us, as well as possible proceedings, intellectual property infringement claims and class actions based on consumer claims, data, privacy or security breaches and secondary market liability; and the complexity of legal compliance in domestic and foreign jurisdictions.
- Health, safety and the environment, including lost employee work time resulting from illness or injury, public concerns related to radio frequency emissions, environmental issues affecting our business including climate change, waste and waste recycling, risks relating to fuel systems on our properties, and changing government and public expectations regarding environmental matters and our responses.

- Business continuity events including: our ability to maintain customer service and operate our networks in the event of human error or human-caused threats, such as cyber attacks and equipment failures that could cause various degrees of network outages; supply chain disruptions; natural disaster threats; epidemics; pandemics; and the completeness and effectiveness of business continuity and disaster recovery plans and responses.
- Economic growth and fluctuations including: the state of the economy in Canada, which may be influenced by economic and other developments outside of Canada including potential outcomes of yet unknown policies and actions of foreign governments; future interest rates; inflation; unemployment levels; effects of low oil prices; effects of low business spending (such as reducing investments and cost structure); pension investment returns, funding and discount rates; and Canadian dollar: U.S. dollar exchange rates.

These risks are described in additional detail in *Section 9 General trends, outlook and assumptions* and *Section 10 Risks and risk management* in our 2016 annual MD&A. Those descriptions are incorporated by reference in this cautionary statement but are not intended to be a complete list of the risks that could affect the Company.

Many of these factors are beyond our control or our current expectations or knowledge. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also have a material adverse effect on our financial position, financial performance, cash flows, business or reputation. Except as otherwise indicated in this document, the forward-looking statements made herein do not reflect the potential impact of any non-recurring or special items or any mergers, acquisitions, dispositions or other business combinations or transactions that may be announced or that may occur after the date of this document.

Readers are cautioned not to place undue reliance on forward-looking statements. Forward-looking statements in this document describe our expectations and are based on our assumptions as at the date of this document and are subject to change after this date. Except as required by law, we disclaim any intention or obligation to update or revise any forward-looking statements.

This cautionary statement qualifies all of the forward-looking statements in this document.

Management’s discussion and analysis

November 9, 2017

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1. Introduction

The forward-looking statements in this section, including estimates regarding economic growth, are qualified by the Caution regarding forward-looking statements at the beginning of this Management's discussion and analysis (MD&A).

1.1 Preparation of the MD&A

The following sections are a discussion of our consolidated financial position and financial performance for the three-month and nine-month periods ended September 30, 2017, and should be read together with our September 30, 2017, unaudited condensed interim consolidated financial statements (subsequently referred to as the interim consolidated financial statements). The generally accepted accounting principles (GAAP) we use are the International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). Our interim consolidated financial statements comply with IFRS-IASB and Canadian GAAP and have been prepared in accordance with International Accounting Standard 34, *Interim Financial Reporting*. Our use of the term IFRS in this MD&A is a reference to these standards. In our discussion, we also use certain non-GAAP financial measures to evaluate our performance, monitor compliance with debt covenants and manage our capital structure. These measures are defined, qualified and reconciled with their nearest GAAP measures in *Section 11.1*. All currency amounts are in Canadian dollars, unless otherwise specified.

Additional information relating to the Company, including our annual information form and other filings with securities commissions or similar regulatory authorities in Canada, is available on SEDAR (sedar.com). Our filings with the Securities and Exchange Commission in the United States, including Form 40-F, are available on EDGAR (sec.gov).

Our disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management on a timely basis, so that appropriate decisions can be made regarding public disclosure. This MD&A and the interim consolidated financial statements were reviewed by our Audit Committee and approved by our Board of Directors (Board) for issuance on November 9, 2017.

In this MD&A, unless otherwise indicated, results for the third quarter of 2017 (three-month period ended September 30, 2017) and the nine-month period ended September 30, 2017, are compared with results from the third quarter of 2016 (three-month period ended September 30, 2016) and nine-month period ended September 30, 2016.

1.2 The environment in which we operate

The success of our business and the challenges we face can best be understood with reference to the environment in which we operate, including broader economic factors that affect our customers and us, and our competitive industry. Our estimates regarding our environment also form an important part of the assumptions on which our targets are based.

Economic growth

We have updated our assumptions since our first quarter 2017 MD&A. We now estimate that the annual rate of economic growth in Canada in 2017 will be approximately 3.0% (previously 2.2%), based on a composite of estimates from Canadian banks and other sources. For our incumbent local exchange carrier (ILEC) provinces in Western Canada, we currently estimate that annual rates of economic growth will be approximately 3.2% in 2017 (previously 2.3%) in British Columbia (B.C.) and 3.5% in 2017 (previously 2.4%) in Alberta. The Bank of Canada's October 2017 Monetary Policy Report estimated that annual economic growth in Canada will be 3.1% in 2017. Which sectors of the economy that experience these growth estimates and the competitive and dynamic environment in which we operate will affect when, and to what extent, we will experience the effects of these economic growth estimates.

In respect of the national unemployment rate, Statistics Canada's Labour Force Survey reported a rate of 6.2% for September 2017 (6.9% for December 2016 and 7.0% for September 2016). The unemployment rate for B.C. was 4.9% for September 2017 (5.8% for December 2016 and 5.7% for September 2016), and the unemployment rate for Alberta was 7.9% for September 2017 (8.5% in December 2016 and 8.5% for September 2016).

1.3 Consolidated highlights

Voxpro Limited

On August 31, 2017, through our TELUS International (Cda) Inc. subsidiary, we acquired 55% of Voxpro Limited (Voxpro), a business process outsourcing and contact centre services company with facilities in Ireland, the U.S. and Romania, for cash consideration of \$58 million. The investment was made with a view to expanding further into supporting customers who provide Internet-related services and products, bolstering sales capabilities in our chosen markets, and acquiring multi-site redundancy in support of other facilities. We concurrently provided a written put option to and have a purchased call option from the remaining selling shareholders under which they could put or we could call, the remaining 45% of the shares commencing in 2021. If either of these options are exercised, total consideration is estimated to be approximately \$152 million.

Xavient Information Systems

On October 30, 2017, through our TELUS International (Cda) Inc. subsidiary, we entered into an agreement to acquire 65% of Xavient Information Systems, a group of information technology consulting and software services companies with facilities in the U.S. and in India for consideration of approximately \$144 million (U.S.\$115 million) in cash and approximately \$19 million (U.S.\$15 million) in TELUS International (Cda) Inc. common shares, subject to customary closing conditions, including regulatory approvals. We expect the transaction to close in 2017. We will concurrently provide a written put option to the remaining selling shareholders under which they could put the remaining 35% interest on or before December 31, 2020. The written put option sets out that the share pricing methodology will be dependent upon earnings. If this option is exercised, total consideration would be in the range of \$310 million (U.S.\$250 million). Concurrent with closing, the non-controlling shareholders are to provide us with a purchased call option, which will substantially mirror the written put option. The investment is being made with a view to enhancing our ability to provide complex and higher value information technology services, improve our related sales and solutioning capabilities and acquire multi-site redundancy in support of other facilities.

Changes to the Board of Directors

Effective November 7, 2017, Marc Parent, the President and Chief Executive Officer of CAE Inc. (CAE), joined our Board. CAE, which is listed on both the New York Stock Exchange and the Toronto Stock Exchange, is a global leader in training for the civil aviation, defence and security, and healthcare markets. CAE’s healthcare business designs and manufactures simulators, audiovisual and simulation centre management solutions, develops courseware, and offers services for training of medical, nursing and allied healthcare students as well as clinicians in educational institutions, hospitals and defence organizations worldwide. A native of Montreal, Marc is a graduate of mechanical engineering from Montreal’s École Polytechnique and of the Harvard Business School’s Advanced Management Program, and was awarded an Honorary Doctorate from École Polytechnique for his contributions to the aerospace industry in Montreal and internationally.

Consolidated highlights

(\$ millions, unless otherwise noted)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Consolidated statements of income						
Operating revenues	3,366	3,238	4.0 %	9,837	9,494	3.6 %
Operating income	649	616	5.4 %	2,046	1,946	5.1 %
Income before income taxes	500	487	2.7 %	1,617	1,560	3.7 %
Net income	370	355	4.2 %	1,197	1,149	4.2 %
Net income attributable to Common Shares	367	348	5.5 %	1,179	1,142	3.2 %
Earnings per share (EPS) (\$)						
Basic EPS	0.62	0.59	5.1 %	1.99	1.93	3.1 %
Adjusted basic EPS ¹	0.66	0.65	1.5 %	2.08	2.05	1.5 %
Diluted EPS	0.62	0.59	5.1 %	1.99	1.93	3.1 %
Dividends declared per Common Share (\$)	0.4925	0.46	7.1 %	1.4650	1.36	7.7 %
Basic weighted-average Common Shares outstanding (millions)	594	592	0.4 %	592	593	(0.1)%
Consolidated statements of cash flows						
Cash provided by operating activities	1,133	1,032	9.8 %	2,968	2,487	19.3 %
Cash used by investing activities	(866)	(680)	27.4 %	(2,909)	(2,075)	40.2 %
Capital expenditures ²	(821)	(787)	4.3 %	(2,355)	(2,174)	8.3 %
Cash used by financing activities	(150)	(370)	(59.5)%	(3)	(225)	(98.7)%
Other highlights						
Subscriber connections ³ (thousands)				12,942	12,577	2.9 %
EBITDA (earnings before interest, income taxes, depreciation and amortization) ¹	1,196	1,131	5.9 %	3,651	3,460	5.5 %
Restructuring and other costs ¹	36	60	(40.0)%	79	131	(39.7)%
Adjusted EBITDA ⁴	1,232	1,181	4.4 %	3,727	3,557	4.8 %
Adjusted EBITDA margin ⁵ (%)	36.6	36.5	0.1 pts.	37.9	37.5	0.4 pts.
Free cash flow ¹	215	98	119.4 %	692	332	108.4 %
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)				2.76	2.62	0.14

Notations used in MD&A: n/m – not meaningful; pts. – percentage points.

- 1 Non-GAAP and other financial measures. See *Section 11.1*.
- 2 Capital expenditures include assets purchased, but not yet paid for, and consequently differ from Cash payments for capital assets, excluding spectrum licences, as reported on the condensed interim consolidated statements of cash flows.
- 3 The sum of active wireless subscribers, residential network access lines (NALs), high-speed Internet access subscribers and TELUS TV subscribers, measured at the end of the respective periods based on information in billing and other systems. In relation to an acquisition and a divestiture that were both undertaken during the first quarter of 2017, January 1, 2017 residential NALs, high-speed Internet and TELUS TV subscriber balances were increased by a net 1,000, 6,000 and 5,000, respectively, and are not included in subscriber connection net additions metrics in *Section 5.5*. Effective April 1, 2017, postpaid subscribers, total subscribers and associated operating statistics (gross additions, net additions, average revenue per subscriber unit per month (ARPU) and churn) have been adjusted to include an estimated migration of 85,000 Manitoba Telecom Services Inc. (MTS) subscribers in the opening subscriber balances. Cumulative subscriber connections also include an April 1, 2017 adjustment to remove approximately 19,000 prepaid and 25,000 postpaid subscriptions from the respective subscriber bases, primarily due to our national CDMA network shutdown.
- 4 Adjusted EBITDA for all periods excludes restructuring and other costs (See *Section 11.1* for restructuring and other cost amounts). Adjusted EBITDA for the first nine months of 2017 excludes net gains and equity income of \$3 million related to real estate joint venture developments. Adjusted EBITDA for the third quarter of 2016 excludes net gains and equity income of \$10 million related to real estate joint venture developments. Adjusted EBITDA for the first nine months of 2016 excludes: (i) a \$15 million gain in the second quarter of 2016 from the exchange of wireless spectrum licences; and (ii) net gains and equity income of \$19 million (\$9 million in the second quarter and \$10 million in the third quarter) related to real estate joint venture developments.
- 5 Adjusted EBITDA margin is Adjusted EBITDA divided by Operating revenues, where the calculation of the Operating revenues excludes the net gains and equity income related to real estate joint venture developments, as well as the gain from exchange of wireless spectrum licences in the second quarter of 2016.

Operating highlights

- **Consolidated operating revenues** increased by \$128 million in the third quarter of 2017 and \$343 million in the first nine months of 2017:

Service revenues increased by \$129 million in the third quarter of 2017 and \$371 million in the first nine months of 2017, mainly due to growth in wireless network revenue and wireline data services revenue, partly offset by the ongoing decline in legacy wireline voice revenue.

Equipment revenues were relatively flat in the third quarter of 2017. In the first nine months of 2017, equipment revenues decreased by \$9 million, reflecting a combination of higher wireless per-unit subsidies including devices on Premium Plus plans and wireless competitive intensity, partly offset by increased wireless postpaid gross additions and higher wireless retention volumes.

Other operating income was relatively flat in the third quarter of 2017 and decreased by \$19 million in the first nine months of 2017 largely due to lower net gains in the current period than in the comparable period. This change includes lower net gains and equity income related to real estate joint venture developments, in addition to non-recurring 2016 gains related to the exchange of wireless spectrum licences and from the sale of property, plant and equipment, partly offset by the non-recurrence of 2016 provisions related to written put options in respect of non-controlling interests in TELUS International (Cda) Inc.

For additional details on operating revenues, see *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment*.

- During the 12-month period ending on September 30, 2017, our total **subscriber connections** increased by 365,000, reflecting a 5.4% increase in wireless postpaid subscribers, a 3.9% increase in TELUS TV subscribers and a 5.6% increase in high-speed Internet subscribers, partly offset by an 8.4% decline in wireless prepaid subscribers and a 6.0% decline in wireline residential NALs.

Our postpaid wireless subscriber net additions were 115,000 in the third quarter of 2017 and 258,000 in the first nine months of 2017, up 28,000 and 102,000, respectively, compared to the same periods in 2016 from higher gross additions due to the success of our promotions including our focus on higher-value loading, and cost-effective prepaid migrations. Our monthly postpaid subscriber churn rate was 0.86% in the third quarter of 2017 and 0.86% in the first nine months of 2017, as compared to 0.94% in the third quarter of 2016 and 0.93% in the first nine months of 2016. (See *Section 5.4 Wireless segment* for additional details.)

Net additions of high-speed Internet subscribers were 19,000 in the third quarter of 2017 and 60,000 in the first nine months of 2017, up 5,000 in the quarter and 16,000 in the nine-month period. The increases resulted from the continued expansion of our high-speed broadband footprint, including fibre to the premises (FTTP) and the success of recently launched innovative product offerings. Net additions of TELUS TV subscribers were 9,000 in the third quarter of 2017 and 21,000 in the first nine months of 2017, down 5,000 in the quarter and 17,000 in the nine-month period. These net addition results reflect lower gross additions and a decline in satellite-TV subscribers due to a declining overall market for paid TV services resulting from the effects of heightened competitive intensity, including from over-the-top (OTT) services and a high rate of market penetration. These pressures were partly offset by the continued focus on expanding our addressable high-speed Internet and Optik TV footprint, connecting more homes and business directly to fibre, and bundling these services together. This contributed to overall combined Internet and TV subscriber growth of 132,000 or 4.9% over the last 12 months. (See *Section 5.5 Wireline segment* for additional details.)

- **Operating income** increased by \$33 million in the third quarter of 2017 and \$100 million in the first nine months of 2017. The increases reflect growth in EBITDA partially offset by increased depreciation and amortization expenses resulting from higher expenditures associated with both our capital asset base and intangible asset base, including acquisitions, and the impact of our continuing program of asset life studies.

EBITDA includes restructuring and other costs, and includes net gains and equity income related to real estate joint venture developments recorded in the second quarter of 2017 and the second and third quarters of 2016, as well as a gain from the exchange of wireless spectrum licences recorded in the second quarter of 2016. EBITDA increased by \$65 million in the third quarter of 2017 and \$191 million in the first nine months of 2017. The increases reflect: (i) growth in wireless network revenues and increased wireline data revenues, partially offset by increased costs associated with higher wireless gross loading and retention volumes; (ii) lower restructuring and other costs, partly offset by costs associated with the migration of subscribers acquired from MTS; and (iii) lower employee benefits expense.

Adjusted EBITDA excludes restructuring and other costs, and excludes net gains and equity income related to real estate joint venture developments recorded in the second quarter of 2017 and the second and third quarters of 2016, in addition to the exclusion of a gain from the exchange of wireless spectrum licences recorded in the second quarter of 2016. Adjusted EBITDA increased by \$51 million or 4.4% in the third quarter of 2017 and \$170 million or 4.8% in the first nine months of 2017. (See *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment* for additional details.)

- **Income before income taxes** increased by \$13 million in the third quarter of 2017 and \$57 million in the first nine months of 2017, reflecting higher Operating income as noted above, partly offset by an increase in Financing costs. The increase in Financing costs resulted from lower capitalized long-term debt interest costs for spectrum licences that are now being deployed and higher average long-term debt outstanding. (See *Financing costs* in *Section 5.3*.)
- **Income taxes** were relatively flat in the third quarter of 2017 and increased by \$9 million in the first nine months of 2017 primarily due to higher Income before income taxes.
- **Net income attributable to Common Shares** increased by \$19 million in the third quarter of 2017 and \$37 million in the first nine months of 2017. These increases were driven by higher Operating income partly offset by increased Financing costs. Adjusted Net income excludes the effects of restructuring and other costs, net gains and equity income related to real estate joint venture developments recorded in the second quarter of 2017 and second and third quarters of 2016, income tax-related adjustments, and a non-recurring gain from the exchange of wireless spectrum licences recorded in the second quarter of 2016. Adjusted Net income increased by \$8 million or 2.1% in the third quarter of 2017 and \$20 million or 1.7% in the first nine months of 2017.

Analysis of Net income

(\$)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Net income attributable to Common Shares	367	348	19	1,179	1,142	37
Add back (deduct):						
Gain on the exchange of wireless spectrum licences, after income taxes	—	—	—	—	(13)	13
Net gains and equity income from real estate joint venture developments, after income taxes	—	(6)	6	(2)	(11)	9
Restructuring and other costs, after income taxes	26	44	(18)	58	96	(38)
Favourable income tax-related adjustments	(2)	(3)	1	(3)	(2)	(1)
Adjusted Net income	391	383	8	1,232	1,212	20

- **Basic EPS** increased by \$0.03 or 5.1% in the third quarter of 2017 and \$0.06 or 3.1% in the first nine months of 2017. Adjusted basic EPS excludes the effects of restructuring and other costs, net gains and equity income related to real estate joint venture developments recorded in the second quarter of 2017 and second and third quarters of 2016, income tax-related adjustments, and a non-recurring gain from the exchange of wireless spectrum licences recorded in the second quarter of 2016. Adjusted basic EPS increased by \$0.01 or 1.5% in the third quarter of 2017 and \$0.03 or 1.5% in the first nine months of 2017.

Analysis of basic EPS

(\$)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Basic EPS	0.62	0.59	0.03	1.99	1.93	0.06
Add back (deduct):						
Gain on the exchange of wireless spectrum licences, after income taxes, per share	—	—	—	—	(0.02)	0.02
Net gains and equity income from real estate joint venture developments, after income taxes, per share	—	(0.01)	0.01	—	(0.02)	0.02
Restructuring and other costs, after income taxes, per share	0.05	0.08	(0.03)	0.10	0.16	(0.06)
Favourable income tax-related adjustments, per share	(0.01)	(0.01)	—	(0.01)	—	(0.01)
Adjusted basic EPS	0.66	0.65	0.01	2.08	2.05	0.03

- **Dividends declared per Common Share** were \$0.4925 in the third quarter of 2017 and \$1.4650 in the first nine months of 2017, reflecting increases of 7.1% from the third quarter of 2016 and 7.7% from the first nine months of 2016. This is consistent with our announced intention of dividend growth in the range of 7 to 10% per annum through 2019. On November 8, 2017, the Board declared a fourth quarter dividend of \$0.5050 per share on the issued and outstanding Common Shares, payable on January 2, 2018, to shareholders of record at the close of business on December 11, 2017. The fourth quarter dividend reflects a quarterly increase of \$0.025 per share or 5.2% from the \$0.48 per share dividend declared one year earlier and an annualized increase of \$0.13 per share or 7.1% in 2017 compared to the \$1.84 per share dividend declared in 2016.

Liquidity and capital resource highlights

- **Net debt to EBITDA – excluding restructuring and other costs** was 2.76 times at September 30, 2017, up from 2.62 times at September 30, 2016, as the increase in net debt exceeded the growth in EBITDA – excluding restructuring and other costs. (See *Section 7.5 Liquidity and capital resource measures.*)
- **Cash provided by operating activities** increased by \$101 million in the third quarter of 2017 and \$481 million in the first nine months of 2017 due to lower income taxes instalments paid and growth in Adjusted EBITDA.
- **Cash used by investing activities** increased by \$186 million in the third quarter of 2017 and \$834 million in the first nine months of 2017 attributed to higher cash payments for acquisitions and higher capital expenditures. **Acquisitions** increased by \$68 million in the third quarter of 2017 and \$544 million in the first nine months of 2017, primarily due to the acquisition of Voxpro, in addition to the second quarter acquisitions of approximately one-quarter of MTS postpaid wireless subscribers, certain network assets and rights to 15 retail locations in Manitoba, as well as Kroll Computer Systems Inc. **Capital expenditures** increased by \$34 million in the third quarter of 2017 and \$181 million in the first nine months of 2017, mainly due to continued generational capital investments in broadband infrastructure and our network enhancement investments in Manitoba to improve coverage, capacity and speeds to significantly enhance our customer experience and supplement the business acquisition of MTS subscribers, dealers and network. Investments in our broadband infrastructure include our fibre-optic network, which supports our small-cell technology strategy to improve coverage and capacity and prepare for a more efficient and timely evolution to 5G, as well as connect more homes and businesses directly to our fibre-optic network. (See *Section 7.3 Cash used by investing activities.*)
- **Cash used by financing activities** decreased by \$220 million in the third quarter of 2017 reflecting increased issuances of long-term debt net of redemptions. In the first nine months of 2017, Cash used by financing activities decreased by \$222 million as increased issuances of long-term debt net of redemptions, coupled with no share repurchase activity in 2017, was partly offset by the impact of the 2016 non-recurring issuance of shares by a subsidiary to a non-controlling interest. (See *Section 7.4 Cash used by financing activities.*)
- **Free cash flow** increased by \$117 million in the third quarter of 2017 and \$360 million in the first nine months of 2017, resulting from lower income taxes paid and increased EBITDA, partially offset by an increase in capital expenditures. (See calculation in *Section 11.1 Non-GAAP and other financial measures.*)

2. Core business and strategy

Our core business was described in our 2016 annual MD&A. The following are business updates grouped under the applicable strategic imperatives.

Focusing relentlessly on growth markets of data, IP and wireless

External wireless revenues and wireline data revenues totalled \$8.7 billion in the first nine months of 2017, up \$428 million or 5.2%, while remaining revenues totalled \$1.1 billion in the first nine months of 2017, down \$85 million or 7.0%. These external wireless revenues and wireline data revenues represented 89% of our consolidated revenues for the first nine months of 2017, as compared to \$8.2 billion, or 87%, in the same period in 2016.

Providing integrated solutions that differentiate TELUS from our competitors

In July 2017, TELUS Health announced the launch of MedDialog, a national clinical solution that allows doctors to communicate electronically with other physicians regarding the care of their patients directly from their electronic medical record systems. This technology will enable more efficient clinical practice and better patient care by eliminating the need for phone and fax communications and ensuring all patient communication history remains within the digital chart.

Building national capabilities across data, IP, voice and wireless

In September 2017, we successfully completed Canada’s first test of licensed assisted access (LAA) on indoor and outdoor live networks. The test delivered wireless download speeds of 970 Mbps indoors and 966 Mbps outdoors using 80Mhz of aggregated spectrum in a live, dynamic production network. LAA technology will enhance the TELUS network as it continues to evolve towards next-generation 5G speeds, bringing customers higher throughput and a better overall network experience as we deploy the technology into our network in the coming years.

Partnering, acquiring and divesting to accelerate the implementation of our strategy and focus our resources on core business

As discussed in *Section 1.3*, on August 31, 2017, we acquired 55% of Voxpro and approximately 2,700 Voxpro team members joined us through our TELUS International (Cda) Inc. subsidiary. The Ireland headquartered company now operates as Voxpro – powered by TELUS International.

3. Corporate priorities for 2017

Our 2017 corporate priorities were listed in our 2016 annual MD&A and updated in our first quarter 2017 MD&A. They are:

- Delivering on TELUS’ future friendly® brand promise by putting customers first
- Elevating our winning culture for sustained competitive advantage
- Generating profitable top-line revenue growth while enhancing our operational efficiency
- Increasing our competitive advantage through advanced, client-centric technology, networks and systems that lead the world in reliability
- Driving TELUS’ leadership position in our chosen business, public sector and international markets
- Advancing TELUS’ leadership in healthcare information management for better human outcomes.

4. Capabilities

The forward-looking statements in this section, including statements regarding our dividend growth program and our financial objectives in *Section 4.3*, are qualified by the *Caution regarding forward-looking statements* at the beginning of this MD&A.

4.1 Principal markets addressed and competition

For a discussion of our principal markets and an overview of competition, please refer to *Section 4.1* of our 2016 annual MD&A.

4.2 Operational resources

For a discussion of our operational resources, please refer to *Section 4.2* of our 2016 annual MD&A.

Wireless

Churn is defined in *Section 11.2* of this MD&A. Our monthly postpaid churn rate was 0.86% in the third quarter of 2017 and has now been below 1% for 16 of the past 17 quarters despite strong competitive and economic pressures. In the third quarter of 2017, we continued to deliver leading blended customer churn on a national basis. Our monthly blended churn was 1.05% in the third quarter of 2017, which represented our lowest third quarter churn rate since we became a national carrier 17 years ago. This further exemplifies the success of our differentiated customers first culture, our ongoing focus on delivering an outstanding customer experience, combined with attractive new products and services, and our retention programs.

Since mid-2013, we have invested more than \$3.6 billion to acquire wireless spectrum licences in spectrum auctions and other transactions, which has more than doubled our national spectrum holdings in support of our top corporate priority of putting customers first. Wireless data consumption has been increasing rapidly and we have responded by investing to extend the capacity of our network to support the additional data consumption and growth in our wireless customer base. This includes investments in wireless small cells connected to our fibre network to improve coverage and capacity and prepare for a more efficient and timely evolution to 5G wireless services.

As at September 30, 2017, our 4G long-term evolution (LTE) network covered 99% of Canada’s population, up from 97% at September 30, 2016. Furthermore, we have continued to invest in our LTE advanced network roll-out, which covered more than 85% of Canada’s population at September 30, 2017, up from 61% at September 30, 2016. Outside of LTE advanced and LTE coverage areas, the LTE devices we offer also operate on our HSPA+ network, which covered 99% of Canada’s population at September 30, 2017.

Wireline

We have continued to invest in our incumbent local exchange carrier (ILEC) urban and rural communities with commitments to deliver broadband network capabilities to as many Canadians as possible. We are expanding our fibre footprint by connecting more homes and businesses directly to fibre in communities across B.C., Alberta and Eastern Quebec. We have also increased broadband Internet speeds, expanded our IP TV video-on-demand library and high-definition content, including 4K TV, and enhanced marketing of data products and bundles. Our fibre network is also an essential component of our wireless network, and will enable 5G deployment in the future.

As at September 30, 2017, our high-speed broadband coverage reached approximately 3 million households and businesses in B.C., Alberta and Eastern Quebec, including approximately 1.33 million homes and businesses covered by fibre-optic cable, up from approximately 0.95 million homes and businesses in the third quarter of 2016, which provides these premises with immediate access to our gigabit-capable fibre-optic network.

4.3 Liquidity and capital resources

Capital structure financial policies

Our objective when managing capital is to maintain a flexible capital structure that optimizes the cost and availability of capital at acceptable risk.

In the management of capital and in its definition, we include Common Share equity (excluding Accumulated other comprehensive income), Long-term debt (including long-term credit facilities, commercial paper backstopped by long-term credit facilities and any associated hedging assets or liabilities, net of amounts recognized in Accumulated other comprehensive income), Cash and temporary investments, and securitized trade receivables.

We manage our capital structure and make adjustments to it in light of changes in economic conditions and the risk characteristics of our telecommunications infrastructure. In order to maintain or adjust our capital structure, we may change the amount of dividends paid to holders of Common Shares, purchase shares for cancellation pursuant to our normal course issuer bid (NCIB) programs, issue new debt, issue new debt to replace existing debt with different characteristics, issue new shares, and/or increase or decrease the amount of trade receivables sold to an arm’s-length securitization trust.

We monitor capital by utilizing a number of measures, including net debt to EBITDA – excluding restructuring and other costs ratio and the dividend payout ratio. (See definitions in *Section 11.1*.)

Financing and capital structure management plans

Report on financing and capital structure management plans

Pay dividends to the holders of Common Shares under our multi-year dividend growth program

- In May 2016, we announced our intention to target ongoing semi-annual dividend increases, with the annual increase in the range of 7 to 10% from 2017 through to the end of 2019, thereby extending the policy first announced in May 2011. Notwithstanding this target, dividend decisions will continue to be subject to our Board’s assessment and the determination of our financial position and outlook on a quarterly basis. Our long-term dividend payout ratio guideline is 65 to 75% of prospective net earnings per share. There can be no assurance that we will maintain a dividend growth program or that it will not be changed through 2019. (See *Caution regarding forward-looking statements – Ability to sustain our dividend growth program through 2019* and *Section 10.7 Financing, debt requirements and returning cash to shareholders in our 2016 annual MD&A*.)
- On November 8, 2017, a fourth quarter dividend of \$0.5050 per share was declared on our issued and outstanding Common Shares, payable on January 2, 2018, to shareholders of record at the close of business on December 11, 2017. The fourth quarter dividend for 2017 reflects a quarterly increase of \$0.025 per share or 5.2% from the \$0.48 per share dividend paid on January 3, 2017 and an annualized increase of \$0.13 per share or 7.1% in 2017 compared to the \$1.84 per share dividend declared in 2016.
- In connection with dividends declared during the three-month and nine-month periods ended September 30, 2017, our dividend reinvestment and share purchase plan trustee purchased approximately 0.5 million dividend reinvestment Common Shares for \$24 million, and approximately 1.6 million dividend reinvestment Common Shares for \$68 million, respectively, with no discount applicable.

Purchase Common Shares

- During the three-month and nine-month periods ended September 30, 2017, we did not have any transactions pursuant to our NCIB.

Use proceeds from securitized trade receivables (Short-term borrowings), bank facilities and commercial paper as needed, to supplement free cash flow and meet other cash requirements

- Our issued and outstanding commercial paper was \$1,092 million at September 30, 2017, all of which was denominated in U.S. dollars (U.S.\$875 million), compared to \$613 million at December 31, 2016, and \$137 million at September 30, 2016.
- Our net draws on the TELUS International (Cda) Inc. credit facility were \$358 million (\$353 million net of unamortized costs) at September 30, 2017, compared to \$340 million (\$332 million net of unamortized issue costs) at December 31, 2016, and \$361 million (\$352 million net of unamortized costs) at September 30, 2016.
- Proceeds from securitized trade receivables were \$100 million at September 30, 2017, (September 30 and December 31, 2016 – \$100 million).

Report on financing and capital structure management plans

Maintain compliance with financial objectives

Certain of our current financial objectives will be reviewed in 2017 for possible revision due to changes arising from the adoption of new accounting standards, IFRS 15, *Revenue from Contracts with Customers* and IFRS 16, *Leases*. (See *Section 8.2 Accounting policy developments* in our 2016 annual MD&A.)

- Maintain investment grade credit ratings in the range of BBB+ or the equivalent – On November 9, 2017, investment grade credit ratings from the four rating agencies that cover TELUS were in the desired range. (See *Section 7.8 Credit ratings*.)
- Net debt to EBITDA – excluding restructuring and other costs ratio of 2.00 to 2.50 times – As measured at September 30, 2017, the ratio was 2.76 times, outside of the range, primarily due to the funding of spectrum licences acquired in wireless spectrum auctions held during 2014 and 2015, and the elevated strategic capital investments in our fibre-optic network. We expect this ratio to decline in 2018 and we continue to expect to return to within the objective range in the medium term, consistent with our long-term strategy. (See *Section 7.5 Liquidity and capital resource measures*.)
- Dividend payout ratio of 65 to 75% of net earnings per share on a prospective basis – Our target ratio is on a prospective basis. The dividend payout ratio we present in this MD&A is a historical measure utilizing the last four quarters of dividends declared and earnings per share, and is disclosed for illustrative purposes in evaluating our target guideline. As at September 30, 2017, the historical ratio of 91% and the adjusted historical ratio of 79% exceeded the objective range, however, we currently expect that we will be within our target guideline when considered on a prospective basis within the medium term. (See *Section 7.5 Liquidity and capital resource measures*.)
- Generally maintain a minimum of \$1 billion in unutilized liquidity – As at September 30, 2017, our unutilized liquidity was more than \$1 billion. (See *Section 7.6 Credit facilities*.)

4.4 Changes in internal control over financial reporting

There were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

5. Discussion of operations

This section contains forward-looking statements, including those with respect to average revenue per subscriber unit per month (ARPU) growth, high-speed Internet subscriber growth, and the various trends described in this section as they relate to the future. There can be no assurance that we have accurately identified the trends based on past results or that these trends will continue. See *Caution regarding forward-looking statements* at the beginning of this MD&A.

5.1 General

A significant judgment we make is in respect of distinguishing between our wireless and wireline operations and cash flows (and this extends to allocations of both direct and indirect expenses and of capital expenditures). The clarity of such distinction has been increasingly affected by the convergence and integration of our wireless and wireline telecommunications infrastructure and technology. The continued build-out of our technology-agnostic fibre-optic infrastructure, in combination with converged edge technology, has significantly affected this judgment, as has the commercialization of fixed-wireless telecommunications solutions for customers and the consolidation of our non-customer facing operations. As a result, it has become increasingly impractical and difficult to objectively and clearly distinguish between our wireless and wireline operations and cash flows. As we do not currently aggregate operating segments, our reportable segments as at September 30, 2017, are also wireless and wireline. Segmented information in Note 5 of the interim consolidated financial statements is regularly reported to our Chief Executive Officer (CEO) (our chief operating decision-maker).

5.2 Summary of consolidated quarterly results and trends

Summary of quarterly results

(\$ millions, except per share amounts)	2017 Q3	2017 Q2	2017 Q1	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4
Operating revenues	3,366	3,273	3,198	3,305	3,238	3,148	3,108	3,217
Operating expenses								
Goods and services purchased ¹	1,531	1,433	1,313	1,574	1,426	1,331	1,300	1,482
Employee benefits expense ¹	639	646	624	962	681	628	668	757
Depreciation and amortization	547	526	532	533	515	499	500	518
Total operating expenses	2,717	2,605	2,469	3,069	2,622	2,458	2,468	2,757
Operating income	649	668	729	236	616	690	640	460
Financing costs	149	142	138	134	129	134	123	114
Income before income taxes	500	526	591	102	487	556	517	346
Income taxes	130	140	150	15	132	140	139	85
Net income	370	386	441	87	355	416	378	261
Net income attributable to Common Shares	367	379	433	81	348	416	378	261
Net income per Common Share:								
Basic earnings per share (basic EPS)	0.62	0.64	0.73	0.14	0.59	0.70	0.64	0.44
Adjusted basic EPS ²	0.66	0.68	0.74	0.53	0.65	0.70	0.70	0.54
Diluted EPS	0.62	0.64	0.73	0.14	0.59	0.70	0.64	0.44
Dividends declared per Common Share	0.4925	0.4925	0.48	0.48	0.46	0.46	0.44	0.44
Additional information:								
EBITDA ²	1,196	1,194	1,261	769	1,131	1,189	1,140	978
Restructuring and other costs ²	36	39	4	348	60	23	48	99
Gains on the exchange of wireless spectrum licences	—	—	—	—	—	15	—	—
Net gains and equity income from real estate joint venture developments	—	3	—	7	10	9	—	—
Adjusted EBITDA ²	1,232	1,230	1,265	1,110	1,181	1,188	1,188	1,077
Cash provided by operating activities	1,133	1,126	709	732	1,032	892	563	870
Free cash flow ²	215	260	217	(191)	98	126	108	197

1 Goods and services purchased and Employee benefits expense amounts include restructuring and other costs.

2 See Section 11.1 Non-GAAP and other financial measures.

Trends

The trend of year-over-year increases in consolidated revenue reflects: (i) wireless network revenue generated from growth in both our ARPU and subscriber base; and (ii) wireline data service revenue, driven by Internet and enhanced

data, TELUS Health, TELUS TV services and business process outsourcing revenues. Increased Internet and TV service revenues are being generated by subscriber growth and higher Internet revenue per customer. Consolidated revenue growth was partially offset by the continued decline in wireline voice revenues and the general decline in wireless equipment revenues. For additional information on wireless and wireline revenue and subscriber trends, see *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment*.

The trend of year-over-year increases in Goods and services purchased expense reflects higher equipment expenses associated with increased postpaid gross additions and retention volumes, as well as increasing per-unit device costs including higher-value smartphones in the sales mix; increasing wireless customer service, administrative, roaming, and external labour expenses to support growth in our subscriber base; and increased wireline TV costs of sales associated with a growing subscriber base. These were partly offset by lower wireline equipment costs.

The general trend of year-over-year decreases in net Employee benefits expense reflects moderating wages and salaries resulting from a decrease in the number of full-time equivalent (FTE) domestic employees and the impact of benefits from certain contract concessions associated with our immediately vesting transformative compensation (recorded in the fourth quarter of 2016 and described in our 2016 annual MD&A) that are yielding efficiency improvements and continue to support our customer service focus. This was partly offset by increases in the number of employees to support business process outsourcing revenue growth and from business acquisitions.

The trend of year-over-year increases in Depreciation and amortization reflects increases due to growth in capital assets, which is supporting the expansion of our broadband footprint and enhanced long-term evolution (LTE) network coverage, and growth in business acquisitions, as well as the present impact of our continuing program of asset life studies. The investments in our fibre-optic network also support our small-cell technology strategy to improve coverage and capacity while preparing for a more efficient and timely evolution to 5G.

The trend of year-over-year increases in Financing costs reflects an increase in long-term debt outstanding, mainly associated with our generational investments in fibre to homes and businesses and our wireless network, and the significant investments in wireless spectrum licences acquired during auctions in 2014 and 2015. Financing costs are net of capitalized interest which was related to spectrum licences acquired during the wireless spectrum licence auctions. Capitalization of interest ceased in the first quarter of 2017, as cell sites are now capable of utilizing those spectrum frequencies. Financing costs also include the Employee defined benefit plans net interest expense. Additionally, for the eight periods shown, Financing costs include varying amounts of foreign exchange gains or losses and varying amounts of interest income.

The trend in Net income reflects the items noted above, as well as non-cash adjustments arising from legislated income tax changes and adjustments recognized in the current periods for income taxes of prior periods, including any related after-tax interest on reassessments. Historically, the trend in basic EPS has also been impacted by share purchases under our normal course issuer bid programs. However, there have been no repurchases in the first nine months of 2017.

The general trend of year-over-year increases in Cash provided by operating activities reflects generally higher consolidated Adjusted EBITDA. It also reflects increased interest payments arising from increases in debt outstanding, offset by lower fixed-term interest rates. Both income tax payments and restructuring and other costs have generally increased in 2016, but cash income tax payments have decreased in fiscal 2017, consistent with our assumption described in *Section 9.3* of our 2016 annual MD&A and updated in *Section 9 Update to assumptions*. The trend in free cash flow reflects the factors affecting Cash provided by operating activities, as well as increases in capital expenditures. For further discussion on trends, see *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment*.

5.3 Consolidated operations

The following is a discussion of our consolidated financial performance. Segment information in *Note 5* of the interim consolidated financial statements is regularly reported to our CEO. We discuss the performance of our segments in *Section 5.4 Wireless segment*, *Section 5.5 Wireline segment* and *Section 7.3 Cash used by investing activities*.

Operating revenues

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Service	3,174	3,045	4.2 %	9,292	8,921	4.2 %
Equipment	181	180	0.6 %	507	516	(1.7)%
Revenues arising from contracts with customers	3,355	3,225	4.0 %	9,799	9,437	3.8 %
Other operating income	11	13	(15.4)%	38	57	(33.3)%
	3,366	3,238	4.0 %	9,837	9,494	3.6 %

Consolidated operating revenues increased by \$128 million in the third quarter of 2017 and \$343 million in the first nine months of 2017.

- **Service revenues** increased by \$129 million in the third quarter of 2017 and \$371 million in the first nine months of 2017, primarily reflecting growth in wireless network revenue and wireline data services, partly offset by the continuing decline in wireline voice revenues. Wireless network revenue reflects growth in blended ARPU and a growing wireless subscriber base and, to a lesser extent, revenues related to postpaid subscribers we acquired from Manitoba Telecom Services Inc. (MTS). Wireline data service revenue reflects increases in Internet and enhanced data service, TELUS Health, and TELUS TV revenues. Higher TELUS Health revenues were driven by organic growth through additional professional services and support revenue, and through acquisitions. Professional services revenue increased in large part due to being selected as the technology solution provider for PrescribeIT, a national e-prescribing service, and support revenue growth has arisen from additional physicians using our electronic medical records offering. Internet and TV revenues increased due to subscriber growth, as well as higher Internet revenue per customer.
- **Equipment revenues** were relatively flat in the third quarter of 2017. For the nine-month period, equipment revenues decreased by \$9 million, primarily reflecting a decrease in wireless equipment revenue from a combination of higher per-unit subsidies including devices on Premium Plus plans and wireless competitive intensity, partly offset by increased postpaid gross additions and higher wireless retention volumes.
- **Other operating income** was relatively flat in the third quarter of 2017 and decreased by \$19 million in the first nine months of 2017, primarily due to lower net gains in the current period than in the comparable period. These changes include lower net gains and equity income related to real estate joint venture developments, in addition to non-recurring 2016 gains related to the exchange of wireless spectrum licences and from the sale of property, plant and equipment, partly offset by the non-recurrence of 2016 provisions related to written put options issued in a 2012 business combination for the non-controlling interests.

Operating expenses

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Goods and services purchased	1,531	1,426	7.4 %	4,277	4,057	5.4 %
Employee benefits expense	639	681	(6.2)%	1,909	1,977	(3.4)%
Depreciation	410	388	5.7 %	1,203	1,158	3.9 %
Amortization of intangible assets	137	127	7.9 %	402	356	12.9 %
	2,717	2,622	3.6 %	7,791	7,548	3.2 %

Consolidated operating expenses increased by \$95 million in the third quarter of 2017 and \$243 million in the first nine months of 2017.

- **Goods and services purchased** increased by \$105 million in the third quarter of 2017 and \$220 million in the first nine months of 2017, reflecting increased costs associated with higher wireless gross loading and retention volumes (retention volumes increased by 6.5% in the third quarter of 2017 and 1.9% in the first nine months of 2017), higher handset costs, increased roaming costs, increased advertising and promotion expense, increased external labour to support a growing subscriber base, higher non-labour restructuring costs including those associated with the migration of subscribers from MTS, customer support costs related to acquired MTS subscribers and higher TV content costs.
- **Employee benefits expense** decreased by \$42 million in the third quarter of 2017 and \$68 million in the first nine months of 2017 due to the non-recurrence of labour-related restructuring expenses from 2016, and the benefits from certain contract concessions associated with our immediately vesting transformative compensation that are yielding efficiency improvements and continue to support our customer service focus.

- **Depreciation** increased by \$22 million in the third quarter of 2017 and \$45 million in the first nine months of 2017 due to increased expenditures associated with capital assets, including those arising from business acquisitions, as well as the impact of our continuing program of asset life studies.
- **Amortization of intangible assets** increased by \$10 million in the third quarter of 2017 and \$46 million in the first nine months of 2017, reflecting increased expenditures associated with the intangible asset base, including those arising from business acquisitions.

Operating income

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Wireless EBITDA (See Section 5.4)	788	759	3.9 %	2,391	2,308	3.6 %
Wireline EBITDA (See Section 5.5)	408	372	9.8 %	1,260	1,152	9.3 %
EBITDA	1,196	1,131	5.9 %	3,651	3,460	5.5 %
Depreciation and amortization (discussed above)	(547)	(515)	6.2 %	(1,605)	(1,514)	6.0 %
	649	616	5.4 %	2,046	1,946	5.1 %

Operating income increased by \$33 million in the third quarter of 2017 and \$100 million in the first nine months of 2017. EBITDA increased by \$65 million in the third quarter of 2017 and \$191 million in the first nine months of 2017 and was negatively affected by in-quarter costs and revenue impacts of \$4 million related to the wildfires in Western Canada. Adjusted EBITDA (see Section 11.1) increased by \$51 million in the third quarter of 2017 and \$170 million in the first nine months of 2017. These increases reflect wireless network revenue growth driven by higher ARPU and a larger customer base, in addition to growth in data service margins.

Financing costs

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Gross interest expense	144	137	5.1 %	430	412	4.4 %
Capitalized long-term debt interest	—	(12)	n/m	—	(40)	n/m
Interest expense	144	125	15.2 %	430	372	15.6 %
Employee defined benefit plans net interest	1	1	— %	4	3	33.3 %
Interest (income)	(1)	—	n/m	(2)	(1)	100.0 %
Foreign exchange losses (gains)	5	3	66.7 %	(3)	12	(125.0)%
	149	129	15.5 %	429	386	11.1 %

Financing costs increased by \$20 million in the third quarter of 2017 and \$43 million in the first nine months of 2017, mainly due to the following factors:

- **Gross interest expense**, prior to capitalization of long-term debt interest, increased by \$7 million in the third quarter of 2017 and \$18 million in the first nine months of 2017, primarily due to the increase in average long-term debt balances outstanding, partly offset by a reduction in the effective interest rate. Our weighted average interest rate on long-term debt (excluding commercial paper and the revolving component of the TELUS International (Cda) Inc. credit facility) was 4.16% at September 30, 2017, as compared to 4.23% one year earlier. (See *Long-term debt issues and repayments* in Section 7.4.)
- **Capitalized long-term debt interest** is in respect of debt incurred for the purchase of spectrum licences during spectrum auctions held by Innovation, Science and Economic Development Canada (ISED), which we deploy in our existing network. Capitalization of long-term debt interest occurs until substantially all of the activities necessary to prepare the spectrum for its intended use are complete, effectively when cell sites are ready to be put into service. The capitalization of interest ceased in the first quarter of 2017.
- **Employee defined benefit plans net interest** was flat in the third quarter of 2017 and was relatively flat in the first nine months of 2017. There was a small increase in the defined benefit plan deficit at December 31, 2016, compared to December 31, 2015, and minimal change in the discount rate.
- **Foreign exchange losses (gains)** have fluctuated as a result of the strengthening of the Canadian dollar relative to the U.S. dollar in 2017, combined with the impact of our hedging activities and the impacts from our international business process outsourcing operations.

Income taxes

(\$ millions, except tax rates)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Income tax computed at applicable statutory rates	133	129	3.1 %	431	414	4.1 %
Adjustments recognized in the current period for income taxes of prior periods	(2)	(3)	(33.3)%	(3)	(3)	— %
Revaluation of deferred income tax liability to reflect future statutory income tax rates	—	—	— %	—	1	(100.0)%
Other	(1)	6	(116.7)%	(8)	(1)	n/m
Income taxes	130	132	(1.5)%	420	411	2.2 %
Income taxes computed at applicable statutory rates (%)	26.6	26.6	— pts.	26.7	26.5	0.2 pts.
Effective tax rate (%)	26.0	27.1	(1.1) pt.	26.0	26.3	(0.3) pts.

Total income tax expense was relatively flat in the third quarter of 2017 and increased by \$9 million in the first nine months of 2017. The increase for the nine-month period was primarily due to higher Income before income taxes.

Comprehensive income

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Net income	370	355	4.2%	1,197	1,149	4.2%
Other comprehensive income (loss) (net of income taxes):						
Items that may be subsequently reclassified to income	5	—	n/m	18	(10)	n/m
Item never subsequently reclassified to income – Employee defined benefit plans re-measurements	(22)	150	(114.7)%	64	167	(61.7)%
Comprehensive income	353	505	(30.1)%	1,279	1,306	(2.1)%

Comprehensive income decreased by \$152 million in the third quarter of 2017 and \$27 million in the nine-month period, primarily due to decreases in employee defined benefit plan re-measurement amounts, partly offset by increases in Net income. Items that may be subsequently reclassified to income are composed of changes in the unrealized fair value of derivatives designated as cash flow hedges, foreign currency translation adjustments arising from translating financial statements of foreign operations and changes in the unrealized fair value of available-for-sale investments.

5.4 Wireless segment**Wireless trends and seasonality**

The historical trend in wireless network revenue reflects growth in both ARPU and our subscriber base, driven by larger proportions of higher-rate plans in the revenue mix and higher data consumption. This growth, coupled with higher-value smartphones in the sales mix, was partially offset by the general decline in wireless equipment revenues. This general decline in wireless equipment revenues reflects higher per-unit subsidies including devices on Premium Plus plans, driven by competitive intensity. The general trend of year-over-year increases in subscriber net additions resulted from the success of our promotions, including marketing efforts focused on higher-value postpaid and smartphone loading, coupled with the effects of market growth arising from a growing population, changing population demographics and an increasing number of customers with multiple activated devices. Although there has historically been significant third and fourth quarter seasonal effects that result in increased loading, competitive intensity in both the consumer and business markets as well as other factors may impact subscriber addition results and trends for future periods.

The wireless ARPU growth trend increased in 2017 due to an emphasis on marketing and increased mix of higher-rate plans, including the Premium Plus plans launched in June 2016 and a higher mix of data share plans. This was partly offset by competitive pressures driving larger allotments of data provided in rate plans, including data sharing and international data roaming features and plans, consumer behavioural response to increased frequency of customer data usage notifications, and offloading of data traffic to Wi-Fi hotspots. ARPU is expected to continue to increase modestly, as a result of the continued growth in data consumption and the ongoing shift in our subscriber base towards higher-value postpaid customers. However, the level of ARPU is highly dependent on competition, the economic environment, consumer behaviour, the regulatory environment, device selection and other factors, and, as a consequence, there cannot be assurance that ARPU growth will continue to materialize.

The trend of year-over-year improvements in our average monthly postpaid subscriber churn reflects our efforts of putting customers first and retention programs. We may experience pressure on our postpaid subscriber churn if the

level of competitive intensity increases, in part due to increased promotional activity, an increase in customers on expired contracts, as well as customers bringing their own devices and therefore not entering into new contracts. Accordingly, our wireless segment historical operating results and trends may not be reflective of results and trends for future periods.

Historically, the third and fourth quarter seasonal effects described above have reflected higher wireless subscriber additions, an increase in related acquisition costs and equipment sales, and higher retention costs due to contract renewals in those quarters. These impacts can be more pronounced around popular device launches and seasonal promotional events such as back to school, Black Friday and the Christmas holiday season. The costs associated with higher seasonal loading volumes have typically resulted in sequential decreases in wireless EBITDA from the second quarter through to the fourth quarter, and are usually followed by sequential increases in wireless EBITDA from the fourth quarter through to the second quarter. The fourth quarter of 2016 included the immediately vesting transformative compensation expense. Subscriber additions have generally been lowest in the first quarter. Historically, wireless ARPU has experienced seasonal sequential increases in the second and third quarters, reflecting higher levels of usage and roaming in the spring and summer, followed by seasonal sequential declines in the fourth and first quarters. This seasonal effect on ARPU has moderated, as unlimited nationwide voice plans have become more prevalent and chargeable voice and long distance usage spikes have become less pronounced. In addition, customers are opting for higher-capacity data plans with higher base prices and benefiting from flexible data top-up features, resulting in less variability in chargeable data usage but higher monthly recurring revenue. These historical seasonal ARPU patterns are tempering similar to the associated loading patterns. Marketing and promotions aimed at attracting and retaining customers have become more prevalent throughout the year. The trends in revenue and revenue-based operating metrics will be impacted by our adoption of IFRS 15, *Revenue from Contracts with Customers*, as discussed further in *Section 8.2 Accounting policy developments* of our 2016 annual MD&A.

Wireless operating indicators

As at September 30	2017	2016	Change			
Subscribers (000s):						
Postpaid	7,868	7,463	5.4 %			
Prepaid	956	1,044	(8.4)%			
Total	8,824	8,507	3.7 %			
Postpaid proportion of subscriber base (%)	89.2	87.7	1.5 pts.			
HSPA+ population coverage ¹ (millions)	36.7	35.7	2.8 %			
LTE population coverage ¹ (millions)	36.6	35.1	4.3 %			
	Third quarters ended September 30		Nine-month periods ended September 30			
	2017	2016	Change	2017	2016	Change
Subscriber gross additions (000s):						
Postpaid	306	283	8.1 %	793	742	6.9 %
Prepaid	93	96	(3.1)%	243	259	(6.2)%
Total	399	379	5.3 %	1,036	1,001	3.5 %
Subscriber net additions (000s):						
Postpaid	115	87	32.2 %	258	156	65.4 %
Prepaid	9	(7)	n/m	(60)	(61)	1.6 %
Total	124	80	55.0 %	198	95	n/m
Blended ARPU, per month ² (\$)	68.67	66.67	3.0 %	67.04	64.72	3.6 %
Churn, per month² (%)						
Blended	1.05	1.18	(0.13) pts.	1.07	1.20	(0.13) pts.
Postpaid	0.86	0.94	(0.08) pts.	0.86	0.93	(0.07) pts.

1 Including network access agreements with other Canadian carriers.

2 See *Section 11.2 Operating indicators*. These are industry measures useful in assessing operating performance of a wireless company, but are not measures defined under IFRS-IASB.

3 Effective April 1, 2017, postpaid subscribers, total subscribers and associated operating statistics (gross additions, net additions, ARPU and churn) have been adjusted to include an estimated migration of 85,000 MTS subscribers in the opening subscriber balances. Cumulative subscriber connections also include an April 1, 2017 adjustment to remove approximately 19,000 prepaid and 25,000 postpaid subscriptions from the respective subscriber bases, primarily due to our national CDMA network shutdown.

Operating revenues – Wireless segment

(\$ millions, except ratios)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Network revenue	1,794	1,679	6.8 %	5,192	4,860	6.8 %
Equipment and other service revenues	135	135	— %	366	382	(4.2)%
Revenues arising from contracts with customers	1,929	1,814	6.3 %	5,558	5,242	6.0 %
Other operating income	5	4	25.0 %	5	32	(84.4)%
External operating revenues	1,934	1,818	6.4 %	5,563	5,274	5.5 %
Inter-service revenues	11	15	(26.7)%	33	43	(23.3)%
Wireless operating revenues	1,945	1,833	6.1 %	5,596	5,317	5.2 %

Network revenue from external customers increased by \$115 million in the third quarter of 2017 and \$332 million in the first nine months of 2017. Network revenue increased, reflecting: (i) growth in the subscriber base, including subscribers we acquired from MTS; (ii) a larger proportion of higher-rate plans in the revenue mix, including the Premium Plus plans launched in June 2016; (iii) a larger proportion of customers selecting plans with larger data buckets or periodically topping up their data buckets; (iv) a higher postpaid subscriber mix; (v) a higher smartphone mix; and (vi) higher roaming revenues.

- **Monthly blended ARPU** was \$68.67 in the third quarter of 2017 and \$67.04 in the first nine months of 2017, reflecting increases of \$2.00 for the quarter and \$2.32 for the nine-month period. The increases were primarily driven by the effects of higher network revenue (as described above).
- **Gross subscriber additions** were 399,000 in the third quarter of 2017 and 1,036,000 in the first nine months of 2017, reflecting increases of 20,000 for the quarter and 35,000 for the nine-month period. Postpaid gross additions increased by 23,000 for the quarter and 51,000 for the first nine months due to the success of promotions, including our marketing efforts focused on higher-value postpaid and smartphone loading. Prepaid gross activations decreased by 3,000 for the quarter and 16,000 for the first nine months mainly from competitive intensity, and our marketing efforts focused on higher-value postpaid loading.
- Our **average monthly postpaid subscriber churn rate** was 0.86% in the third quarter of 2017 and 0.86% in the first nine months of 2017, as compared to 0.94% and 0.93%, respectively, in the comparable periods of 2016. The continuing low postpaid subscriber churn rates during 2017 reflect our focus on executing customers first initiatives and retention programs. Our blended monthly subscriber churn rate was 1.05% in the third quarter of 2017 and 1.07% in the first nine months of 2017, as compared to 1.18% and 1.20%, respectively, in the comparable periods of 2016. The improvement in our blended subscriber churn rates in 2017 reflects the changes in the postpaid churn rate as described above and improvements in prepaid churn rates, as well as an increase in the mix of postpaid subscribers versus prepaid subscribers in our subscriber base.
- **Net subscriber additions** reflect postpaid net additions of 115,000 in the third quarter of 2017 and 258,000 in the first nine months of 2017, compared to 87,000 and 156,000, respectively, in the comparable periods of 2016, attributed to the factors affecting gross subscriber additions as described above, as well as our marketing efforts focused on cost-effective prepaid to postpaid migrations. Prepaid subscribers increased by 9,000 in the third quarter of 2017 due to improvements in prepaid churn rates, as compared to a decrease of 7,000 in 2016. Prepaid subscribers decreased by 60,000 in the first nine months of 2017, as compared to a decrease of 61,000 in the comparable period in 2016, reflecting our focus on higher-value postpaid loading, increased competition for prepaid services and conversions to postpaid services as described above. Net subscriber additions were 124,000 in the third quarter of 2017 and 198,000 in the first nine months of 2017, reflecting year-over-year improvements of 44,000 for the quarter and 103,000 for the first nine months of 2017 due to lower blended monthly churn and higher postpaid gross additions.

Equipment and other service revenues were flat in the third quarter of 2017 as higher volumes were offset by higher per-unit subsidies. In the first nine months of 2017, equipment and other service revenues decreased by \$16 million, mainly from a combination of higher per-unit subsidies combined with competitive intensity, partly offset by increased postpaid gross additions and higher retention volumes.

Other operating income was relatively flat in the third quarter of 2017. In the first nine months of 2017, other operating income decreased by \$27 million, mainly due to non-recurring 2016 gains from the exchange of wireless spectrum licences, lower gains from sales of property, plant and equipment, and lower net gains and equity income related to real estate joint venture developments, partly offset by gains on the sale of investments.

Inter-service revenues represent network services that are eliminated upon consolidation along with the associated wireline expenses.

Operating expenses – Wireless segment

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Goods and services purchased:						
Equipment sales expenses	465	437	6.4 %	1,237	1,171	5.6 %
Network operating expenses	215	200	7.5 %	612	573	6.8 %
Marketing expenses	113	101	11.9 %	301	289	4.2 %
Other ¹	208	170	22.4 %	583	486	20.0 %
Employee benefits expense ¹	156	166	(6.0)%	472	490	(3.7)%
Wireless operating expenses	1,157	1,074	7.7 %	3,205	3,009	6.5 %

1 Includes restructuring and other costs. See Section 11.1 Non-GAAP and other financial measures.

Wireless operating expenses increased by \$83 million in the third quarter of 2017 and \$196 million in the first nine months of 2017.

Equipment sales expenses increased by \$28 million in the third quarter of 2017 and \$66 million in the first nine months of 2017, reflecting an increase in postpaid gross additions and retention volumes (retention volumes increased by 6.5% in the third quarter of 2017 and 1.9% in the first nine months of 2017), an increase in higher-value smartphones in the sales mix, including premium devices on Premium Plus plans, and increasing handset costs.

Network operating expenses increased by \$15 million in the third quarter of 2017 and \$39 million in the first nine months of 2017, mainly due to increased roaming expenses.

Marketing expenses increased by \$12 million in the third quarter and in the first nine months of 2017, primarily due to higher advertising and promotions expenses, as well as higher commission expense driven by higher gross additions and higher retention volumes.

Other goods and services purchased increased by \$38 million in the third quarter of 2017 and \$97 million in the first nine months of 2017, primarily due to higher non-labour restructuring costs, including those associated with the migration of subscribers from MTS, customer support costs related to acquired MTS subscribers, an increase in external labour and higher administrative costs supporting the higher customer base.

Employee benefits expense decreased by \$10 million in the third quarter of 2017 and \$18 million in the first nine months of 2017, primarily due to the non-recurrence of significant labour-related restructuring costs from efficiency initiatives in 2016 and higher capitalized labour costs.

EBITDA – Wireless segment

(\$ millions, except margins)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
EBITDA	788	759	3.9 %	2,391	2,308	3.6 %
Add back restructuring and other costs included in EBITDA	24	18	33.3 %	52	36	44.4 %
Deduct gain on the exchange of wireless spectrum licences	—	—	n/m	—	(15)	n/m
Deduct net gains and equity income from real estate joint venture developments	—	(4)	(100.0)%	(1)	(8)	(87.5)%
Adjusted EBITDA ¹	812	773	5.1 %	2,442	2,321	5.2 %
EBITDA margin (%)	40.5	41.4	(0.9) pts.	42.7	43.4	(0.7) pts.
Adjusted EBITDA margin ² (%)	41.7	42.3	(0.6) pts.	43.6	43.8	(0.2) pts.

1 See description under EBITDA in Section 11.1.

2 The calculation of the Adjusted EBITDA margin excludes the net gains and equity income from real estate joint venture developments, as well as the gain on the exchange of wireless spectrum licences from both EBITDA and Operating revenues, and excludes restructuring and other costs from EBITDA.

Wireless EBITDA increased by \$29 million in the third quarter of 2017 and \$83 million in the first nine months of 2017. Wireless Adjusted EBITDA increased by \$39 million in the third quarter of 2017 and \$121 million in the first nine months of 2017, reflecting network revenue growth driven by higher ARPU and a larger customer base including the subscribers we acquired from MTS, partly offset by increased equipment sales expenses, increased network operating expenses, higher administrative costs and increased external labour.

5.5 Wireline segment

Wireline trends

The trend of increasing wireline service revenue reflects growth in high-speed Internet and enhanced data services, TELUS Health revenues, TELUS TV revenues and business process outsourcing services, and is partly offset by declining wireline voice revenues and equipment revenues. The increases in Internet and TV service revenues are being generated by subscriber growth and higher Internet revenue per customer from upgrades to faster speeds and larger data usage rate plans. The trend of increasing TELUS Health revenues has been driven by organic growth and through acquisitions. Although growth rates of business process outsourcing services have moderated, revenues have remained stable. The trend of declining wireline voice revenues is due to technological substitution, greater use of inclusive long distance coupled with lower long distance minutes used, and continuing increased competition in the small and medium-sized business market, as well as, impacts of the economic slowdown in previous quarters, particularly in Alberta, which were more prominent in the business markets.

We expect continued high-speed Internet subscriber base growth as the economy grows and as we continue our investments in expanding our fibre-optic network. TELUS TV subscriber base growth has moderated due to a declining overall market for paid TV services resulting from the high rate of market penetration and increased competition, including from over-the-top (OTT) services. Residential network access line (NAL) losses continue to reflect the ongoing trend of substitution to wireless and Internet-based services.

Wireline operating indicators

At September 30 (000s)	2017		2016	Change		
Subscriber connections:						
High-speed Internet subscribers ¹	1,722		1,631	5.6 %		
TELUS TV subscribers ¹	1,084		1,043	3.9 %		
Residential NALs ¹	1,312		1,396	(6.0)%		
Total wireline subscriber connections ¹	4,118		4,070	1.2 %		
	<u>Third quarters ended September 30</u>			<u>Nine-month periods ended September 30</u>		
(000s)	2017	2016	Change	2017	2016	Change
Subscriber connection net additions (losses):						
High-speed Internet	19	14	35.7 %	60	44	36.4 %
TELUS TV	9	14	(35.7)%	21	38	(44.7)%
Residential NALs	(20)	(25)	20.0 %	(62)	(71)	12.7 %
Total wireline subscriber connection net additions	8	3	166.7 %	19	11	72.7 %

1 In relation to an acquisition and a divestiture that were both undertaken during the first quarter of 2017, January 1, 2017 residential NALs, high-speed Internet and TELUS TV subscriber balances were increased by a net 1,000, 6,000 and 5,000, respectively.

Operating revenues – Wireline segment

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Data services and equipment	1,067	1,025	4.1 %	3,147	3,008	4.6 %
Voice services	305	335	(9.0)%	936	1,023	(8.5)%
Other services and equipment	54	51	5.9 %	158	164	(3.7)%
Revenues arising from contracts with customers	1,426	1,411	1.1 %	4,241	4,195	1.1 %
Other operating income	6	9	(33.3)%	33	25	32.0 %
External operating revenues	1,432	1,420	0.8 %	4,274	4,220	1.3 %
Inter-service revenues	51	48	6.3 %	155	143	8.4 %
Wireline operating revenues	1,483	1,468	1.0 %	4,429	4,363	1.5 %

- **Data services and equipment** revenues increased by \$42 million in the third quarter of 2017 and \$139 million in the first nine months of 2017. The increases were primarily due to: (i) increased Internet and enhanced data service revenues resulting from a 5.6% increase in our high-speed Internet subscribers over the last 12 months, higher revenue per customer from upgrades to faster Internet speeds and larger data usage Internet rate plans, and certain rate increases; (ii) increased TELUS Health revenues driven by organic growth through additional professional services and support revenue, and through acquisitions. Professional services revenue increased in large part due to being selected as the technology solution provider for PrescribEIT, and support revenue growth has arisen from additional physicians using our electronic medical records offering; (iii) increased TELUS TV revenues resulting from a 3.9% subscriber growth over the last 12 months and certain rate increases; and (iv) growth in business process outsourcing revenues, inclusive of foreign exchange impacts on foreign operations. This growth was partly offset by the ongoing decline in legacy data services.
- **Voice services** revenues decreased by \$30 million in the third quarter of 2017 and \$87 million in the first nine months of 2017. The decreases reflect the ongoing decline in legacy revenues from technological substitution including wireless and Internet, increased competition, greater use of inclusive long distance plans and lower long distance minutes of use, partially offset by higher wholesale volumes and certain rate increases. We experienced a 6.0% decline in residential NALs in the 12-month period ended September 30, 2017.
- **Wireline subscriber connection net additions** were 8,000 in the third quarter of 2017 and 19,000 in the first nine months of 2017, reflecting increases of 5,000 and 8,000 compared to the respective periods in 2016.

Net additions of high-speed Internet subscribers were 19,000 in the third quarter of 2017 and 60,000 in the first nine months of 2017, reflecting increases of 5,000 and 16,000, respectively, compared to the net additions in the same periods in 2016. The increases were due to the continued expansion of our high-speed broadband footprint, including fibre to the premises and the success of recently launched innovative product offerings in addition to our efforts of putting customers first. **Net additions of TELUS TV subscribers** were 9,000 for the third quarter of 2017 and 21,000 for the first nine months of 2017, down 5,000 and 17,000 compared to the net additions in the respective periods in 2016. These net addition results reflect lower gross additions and satellite-TV subscriber losses due to a declining overall market for paid TV services resulting from the effects of heightened competitive intensity, including from OTT services and a high rate of market penetration. These pressures were partly offset by the continued focus on expanding our addressable high-speed Internet and Optik TV footprint, connecting more homes and businesses directly to fibre (as we approach nearly 50% of our targeted coverage footprint), and bundling these services together. This contributed to combined Internet and TV subscriber growth of 132,000 or 4.9% over the last 12 months.

Residential NAL losses were 20,000 in the third quarter of 2017 and 62,000 in the first nine months of 2017, as compared to NAL losses of 25,000 and 71,000, respectively, in the same periods in 2016. This reflects the trend of substitution to wireless and Internet-based services, as well as increased competition, partially mitigated by the success of our bundled service offerings and our customers first initiatives.

- **Other services and equipment** revenues increased by \$3 million in the third quarter of 2017. In the first nine months of 2017, other services and equipment revenues decreased by \$6 million, mainly due to declines in voice equipment sales.

Other operating income decreased by \$3 million in the third quarter of 2017 due to write-down of investments and non-recurrence of gains and equity income related to real estate joint venture developments, partly offset by the non-recurrence of a 2016 provision related to written put options issued in a 2012 TELUS International (Cda) Inc. business combination. Other operating income increased by \$8 million in the first nine months of 2017, largely attributable to the non-recurrence of 2016 provisions related to written put options issued in a 2012 business combination for the non-controlling interests (such written put options were exercised in the fourth quarter of 2016), coupled with higher net gains

on the sale of investments, partly offset by lower net gains and equity income related to real estate joint venture developments.

Inter-service revenues represent services provided to the wireless segment. Such revenue is eliminated upon consolidation together with the associated expenses in wireless.

Operating expenses – Wireline segment

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Goods and services purchased ¹	592	581	1.9 %	1,732	1,724	0.5 %
Employee benefits expense ¹	483	515	(6.2)%	1,437	1,487	(3.4)%
Wireline operating expenses	1,075	1,096	(1.9)%	3,169	3,211	(1.3)%

¹ Includes restructuring and other costs. See *Section 11.1 Non-GAAP and other financial measures*.

Total wireline operating expenses decreased by \$21 million in the third quarter of 2017 and \$42 million in the first nine months of 2017, primarily due to the following factors:

Goods and services purchased increased by \$11 million in the third quarter of 2017 and \$8 million in the first nine months of 2017, primarily from higher TV content costs mainly driven by higher numbers of TV subscribers, partly offset by lower non-labour restructuring costs.

Employee benefits expense decreased by \$32 million in the third quarter of 2017, primarily due to the non-recurrence of significant labour-related restructuring costs from efficiency initiatives in 2016. For the first nine months of 2017, Employee benefits expense decreased by \$50 million, primarily due to the non-recurrence of significant labour-related restructuring costs from efficiency initiatives in 2016, benefits from certain contract concessions associated with our immediately vesting transformative compensation, lower compensation and benefits costs resulting from a decrease in the average number of domestic FTE employees and higher capitalized labour costs. These decreases were partly offset by an increase in the number of employees supporting growing business process outsourcing revenue, net of the effects of foreign exchange on foreign operations.

EBITDA – Wireline segment

(\$ millions, except margins)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
EBITDA	408	372	9.8 %	1,260	1,152	9.3 %
Add back restructuring and other costs included in EBITDA	12	42	(71.4)%	27	95	(71.6)%
Deduct net gains and equity income from real estate joint venture developments	—	(6)	(100.0)%	(2)	(11)	(81.8)%
Adjusted EBITDA ¹	420	408	3.0 %	1,285	1,236	3.9 %
EBITDA margin (%)	27.5	25.3	2.2 pts.	28.4	26.4	2.0 pts.
Adjusted EBITDA margin ² (%)	28.3	27.8	0.5 pts.	29.0	28.3	0.7 pts.

¹ See description under *EBITDA* in *Section 11.1*.

² The calculation of the Adjusted EBITDA margin excludes the net gains and equity income from real estate joint venture developments from both EBITDA and Operating revenues, and excludes restructuring and other costs from EBITDA.

Wireline EBITDA increased by \$36 million in the third quarter of 2017 and \$108 million in the first nine months of 2017. Wireline Adjusted EBITDA increased by \$12 million in the third quarter of 2017 and \$49 million in the first nine months of 2017 due to growth in data service margins (including Internet, TELUS Health services, and TELUS TV) and our execution of cost efficiency programs, partly offset by continued declines in legacy voice services.

6. Changes in financial position

Financial position at: (\$ millions)	Sept. 30 2017	Dec. 31 2016	Change		Change includes:
			(\$ millions)	(%)	
Current assets					
Cash and temporary investments, net	488	432	56	13 %	See <i>Section 7 Liquidity and capital resources</i>
Accounts receivable	1,539	1,471	68	5 %	An increase in roaming revenue accruals, as well as the accrued receivable related to the business acquisition of Manitoba Telecom Services Inc. (MTS) subscribers partially offset by lower customer receivables
Income and other taxes receivable	54	9	45	n/m	An increase due to the timing of tax instalments in excess of current income tax expense as well as payment of taxes owing for 2016
Inventories	356	318	38	12 %	An increase in wireless handset inventory
Prepaid expenses	359	233	126	54 %	An increase due to the annual prepayment of statutory employee benefits, maintenance contracts, property taxes and annual wireless spectrum licence fees, net of amortization
Current derivative assets	5	11	(6)	(55)%	A decrease in the fair value of U.S. currency hedging items.
Current liabilities					
Short-term borrowings	100	100	—	— %	See <i>Section 7.7 Sale of trade receivables</i>
Accounts payable and accrued liabilities	2,447	2,330	117	5 %	An increase in accounts payables associated with higher capital expenditures, partly offset by a decrease in payroll and other employee-related liabilities due to payment of variable pay for 2016 made in the first quarter of 2017
Income and other taxes payable	43	37	6	16 %	An increase due to the timing of current income tax expense in excess of tax instalments
Dividends payable	292	284	8	3 %	n/m
Advance billings and customer deposits	769	737	32	4 %	An increase in advance billings due to the upfront payment for the hardware, maintenance and installation of a managed voice solution, as well as increased subscriber growth during the year
Provisions	66	124	(58)	(47)%	Amounts paid out under restructuring initiatives exceeded new restructuring provisions
Current maturities of long-term debt	1,357	1,327	30	2 %	An increase of \$479 in outstanding commercial paper, as well as \$250 of our 1.50% Notes, Series CS in March 2018 reclassified from long-term debt, offset by the maturation of \$700 of our 4.95% Notes, Series CD in March 2017
Current derivative liabilities	30	12	18	n/m	An increase in the fair value of U.S. currency hedging items.
Working capital (Current assets subtracting Current liabilities)	(2,303)	(2,477)	174	7 %	Increases of \$327 in Current assets and \$153 in Current liabilities. Historically, TELUS has had a negative working capital position. See <i>Capital structure management policies</i> in <i>Section 4.3</i> of this MD&A and the <i>Liquidity risk</i> discussion in <i>Section 7.9</i> of our 2016 annual MD&A.

Financial position at: (\$ millions)	Sept. 30 2017	Dec. 31 2016	Change (\$ millions)	Change (%)	Change includes:
Non-current assets					
Property, plant and equipment, net	11,184	10,464	720	7 %	See <i>Capital expenditures</i> in Section 7.3 <i>Cash used by investing activities</i> and <i>Depreciation</i> in Section 5.3
Intangible assets, net	10,651	10,364	287	3 %	See <i>Capital expenditures</i> in Section 7.3 <i>Cash used by investing activities</i> and <i>Amortization of intangible assets</i> in Section 5.3
Goodwill, net	4,215	3,787	428	11 %	Acquisitions including MTS subscribers, a pharmacy management services provider, and a business process outsourcing and contact centre services company
Other long-term assets	715	640	75	12 %	Increases in pension and post-retirement assets due to positive returns earned on plan assets as well as pension cash funding offset by pension expense.
Non-current liabilities					
Provisions	473	395	78	20 %	An increase due to a business acquisition provision in respect of non-controlling interests
Long-term debt	12,261	11,604	657	6 %	See Section 7.4 <i>Cash used by financing activities</i>
Other long-term liabilities	827	736	91	12 %	An increase in Other long-term liabilities due to an increase in the accrual for share-based compensation, as well as an increase in the fair value of U.S. currency hedging items
Deferred income taxes	2,404	2,107	297	14 %	Increase in temporary differences between the accounting and tax basis of assets and liabilities, as well as adjustments recognized in the current period for income taxes of prior periods.
Owners' equity					
Common equity	8,458	7,917	541	7 %	Includes Net income of \$1,179 and Other comprehensive income of \$81, issue of shares in a business combination of \$100, dividends reinvested and optional cash payments of \$48, and other of \$1, net of dividend declarations of \$868 (see Section 7.4 <i>Cash used by financing activities</i>)
Non-controlling interests	39	19	20	105 %	Includes Net income of \$18, Other comprehensive income of \$1 and adjustments arising from the 35% non-controlling interests in TELUS International (Cda) Inc. of \$1.

7. Liquidity and capital resources

This section contains forward-looking statements, including those with respect to our dividend payout ratio and net debt to EBITDA – excluding restructuring and other costs ratio. See *Caution regarding forward-looking statements* at the beginning of this MD&A.

7.1 Overview

Our capital structure financial policies and financing and capital structure management plans are described in Section 4.3.

Cash flows

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Cash provided by operating activities	1,133	1,032	9.8 %	2,968	2,487	19.3 %
Cash used by investing activities	(866)	(680)	27.4 %	(2,909)	(2,075)	40.2 %
Cash used by financing activities	(150)	(370)	(59.5)%	(3)	(225)	(98.7)%
Increase (decrease) in Cash and temporary investments, net	117	(18)	n/m	56	187	(70.1)%
Cash and temporary investments, net, beginning of period	371	428	(13.3)%	432	223	93.7 %
Cash and temporary investments, net, end of period	488	410	19.0 %	488	410	19.0 %

7.2 Cash provided by operating activities

Cash provided by operating activities increased by \$101 million in the third quarter of 2017 and \$481 million in the first nine months of 2017.

Analysis of changes in cash provided by operating activities

(\$ millions)	Third quarter	Nine-month period
Cash provided by operating activities, three-month and nine-month periods ended September 30, 2016	1,032	2,487
Year-over-year changes:		
Higher EBITDA (See <i>Section 5.4 Wireless segment</i> and <i>Section 5.5 Wireline segment</i>)	65	191
Higher share-based compensation cash outflows, net of expense	(5)	(4)
Higher employer contributions to defined benefits plans, net of expense	(6)	(5)
Lower restructuring disbursements, net of restructuring expenses	31	24
Higher interest paid, net of interest received	(13)	(25)
Lower income taxes paid, net of recoveries received	128	372
Other	(99)	(72)
Cash provided by operating activities, three-month and nine-month periods ended September 30, 2017	1,133	2,968

- Income taxes paid, net of refunds received, decreased in 2017, reflecting lower required instalment payments and a larger final income tax payment in the first quarter of 2016 in respect of the 2015 income tax year.
- Other operating working capital changes in the first nine months of 2017 include an increase in inventories and a decrease in provisions, net of an increase in Accounts payable and accrued liabilities. (See *Section 6 Changes in financial position* and *Note 31(a)* in the interim consolidated financial statements.)

7.3 Cash used by investing activities

Cash used by investing activities

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Cash payments for capital assets, excluding spectrum licences	(794)	(711)	(83)	(2,344)	(1,971)	(373)
Cash payments for spectrum licences	—	—	—	—	(145)	145
Cash payments for acquisitions, net	(82)	(14)	(68)	(560)	(16)	(544)
Real estate joint venture advances	(6)	(5)	(1)	(19)	(28)	9
Real estate joint venture receipts	14	50	(36)	18	91	(73)
Proceeds on dispositions and Other	2	—	2	(4)	(6)	2
Cash used by investing activities	(866)	(680)	(186)	(2,909)	(2,075)	(834)

- The increase in Cash payments for capital assets, excluding spectrum licences, for both the third quarter of 2017 and first nine months of 2017 was composed of:
 - An increase in capital expenditures of \$34 million in the third quarter of 2017 and \$181 million in the first nine months of 2017 (see *Capital expenditure measures* table and discussion below)
 - Increased capital expenditure payments with respect to payment timing differences, as associated Accounts payable and accrued liabilities decreased by \$49 million in the third quarter of 2017 and \$192 million in the first nine months of 2017.
- For the first nine months of 2017, there were no cash payments for acquisition of spectrum licences. Payments for spectrum licences in 2016 were monetary consideration as part of an approved spectrum licence exchange.
- In the third quarter of 2017, we made cash payments for the Voxpro business acquisition described in *Section 1.3* as well as individually immaterial acquisitions complementary to our existing lines of business. In the first nine months of 2017, in addition to the Voxpro business acquisition, cash payments for acquisitions included second quarter payments for approximately one-quarter of Manitoba Telecom Services Inc. (MTS) postpaid wireless subscribers, certain network assets and rights to 15 retail locations in Manitoba, as well as Kroll Computer Systems Inc.
- Receipts from real estate joint ventures, net of advances in 2016, resulted mainly from repayment of construction financing from the TELUS Garden real estate joint venture as TELUS Garden opened in September 2015.

Capital expenditure measures

(\$ millions, except capital intensity)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Capital expenditures¹						
Wireless segment	237	295	(19.7)%	745	733	1.6 %
Wireline segment	584	492	18.7 %	1,610	1,441	11.7 %
Consolidated	821	787	4.3 %	2,355	2,174	8.3 %
Wireless segment capital intensity (%)	12	16	(4) pts.	13	14	(1) pt.
Wireline segment capital intensity (%)	39	34	5 pts.	36	33	3 pts.
Consolidated capital intensity ² (%)	24	24	– pts.	24	23	1 pt.

1 Capital expenditures include assets purchased but not yet paid for, and therefore differ from Cash payments for capital assets, as presented on the interim consolidated statements of cash flows.

2 See Section 11.1 Non-GAAP and other financial measures.

Wireless segment capital expenditures decreased by \$58 million in the third quarter of 2017 as we incurred costs in the third quarter of 2016 to update our radio access network in Ontario and Quebec, which was completed in the second quarter of 2017. In the first nine months of 2017, wireless segment capital expenditures increased by \$12 million due to continuing investments in our fibre-optic network to support our small-cell technology strategy to improve coverage, capacity and back-haul while preparing for a more efficient and timely evolution to 5G. We also expanded our investment in Manitoba to improve coverage, capacity and speeds to significantly enhance our customer experience and supplement the business acquisition of MTS subscribers, dealers and network. Additionally, we continued to invest in system and network resiliency and reliability in support of our ongoing customers first initiatives and to ready the network and systems for future retirement of legacy assets. During the third quarter of 2017, retirement of legacy CDMA network assets cost and accumulated depreciation was approximately \$1 billion.

Wireline segment capital expenditures increased by \$92 million in the third quarter of 2017 and \$169 million in the first nine months of 2017. The increases were due to continuing investments in our broadband infrastructure, including connecting more homes and businesses directly to our fibre-optic network. These investments support our high-speed Internet and Optik TV subscriber growth, as well as our customers’ demand for faster Internet speeds, and extends the reach and functionality of our business and healthcare solutions. Additionally, the increases were also attributed to readying TELUS TV product in preparation for deployment.

7.4 Cash used by financing activities**Cash used by financing activities**

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2017	2016	Change	2017	2016	Change
Dividends paid to holders of Common Shares	(269)	(274)	5	(813)	(798)	(15)
Purchase of Common Shares for cancellation	—	(19)	19	—	(140)	140
Issuance and repayment of short-term borrowings	—	(3)	3	—	—	—
Long-term debt issued net of redemptions and repayment	118	(67)	185	819	437	382
Issue of shares by subsidiary to non-controlling interests	—	(1)	1	—	291	(291)
Other	1	(6)	7	(9)	(15)	6
	(150)	(370)	220	(3)	(225)	222

Dividends paid to the holders of Common Shares

In connection with dividends declared during the three-month and nine-month periods ended September 30, 2017, the dividend reinvestment and share purchase plan trustee (Trustee) purchased shares from Treasury for the dividend reinvestment and share purchase plan instead of acquiring Common Shares in the stock market. For the third quarter of 2017, cash dividends paid to the holders of Common Shares decreased due to the Trustee purchasing dividend reinvestment Common Shares from Treasury, partly offset by higher dividend rates under our dividend growth program (see Section 4.3). For the first nine months of 2017, the increase in dividends paid to the holders of Common Shares reflect higher dividend rates under our dividend growth program, partly offset by the Trustee purchasing Common Shares from Treasury. During the three-month and nine-month periods ended September 30, 2017, the Trustee purchased approximately 0.5 million dividend reinvestment Common Shares for \$24 million, and approximately 1.6 million dividend reinvestment Common Shares for \$68 million, respectively, with no discount applicable. In October 2017, we paid dividends of \$269 million to the holders of Common Shares and the Trustee purchased dividend reinvestment Common Shares from Treasury for \$23 million, totaling \$292 million.

Purchase of Common Shares for cancellation

No Common Shares were purchased for cancellation in the third quarter or first nine months of 2017.

Short-term borrowings

Short-term borrowings are composed primarily of amounts advanced to us from an arm’s-length securitization trust pursuant to the transfer of receivables securitization transactions (see *Section 7.7 Sale of trade receivables*). Such proceeds were \$100 million at September 30, 2017, unchanged since September 30, 2016.

Long-term debt issues and repayments

In the third quarter of 2017, long-term debt issues net of repayments increased by \$185 million, primarily composed of:

- A net increase in commercial paper, including foreign exchange effects, of \$60 million in the third quarter of 2017, to a balance of \$1,092 million (U.S.\$875 million) at September 30, 2017, from \$1,032 million (U.S.\$794 million) at June 30, 2017. Our commercial paper program, when utilized, provides low-cost funds and is fully backstopped by the five-year committed credit facility (see *Section 7.6 Credit facilities*).
- An increase in net draws on the TELUS International (Cda) Inc. credit facility. As at September 30, 2017, net draws were \$358 million (\$353 million net of unamortized issue costs), all of which were denominated in U.S. dollars (U.S.\$287 million). As at June 30, 2017, net draws were \$294 million (\$288 million net of unamortized issue costs), all of which were denominated in U.S. dollars (U.S.\$226 million). The increase in net draws on the TELUS International (Cda) Inc. credit facility was used for an acquisition in the third quarter of 2017.

In the first nine months of 2017, long-term debt issues net of repayments increased by \$382 million, primarily composed of:

- A net increase in commercial paper, including foreign exchange effects, of \$479 million in the first nine months of 2017 from \$613 million (U.S.\$456 million) at December 31, 2016.
- An increase in net draws on the TELUS International (Cda) Inc. credit facility. As at December 31, 2016, net draws were \$340 million (\$332 million net of unamortized issue costs), all of which were denominated in U.S. dollars (U.S.\$253 million).
- The March 2017 issues of U.S.\$500 million of senior unsecured notes at 3.70% due September 15, 2027, and \$325 million of senior unsecured notes at 4.70% due March 6, 2048. For the U.S. issuance, we have fully hedged the principal and interest obligations of the notes against fluctuations in the Canadian dollar: U.S. dollar foreign exchange rate for the entire term of the notes by entering into foreign exchange derivatives (cross currency interest rate exchange agreements). These derivatives effectively converted the principal payments and interest obligations to Canadian dollar obligations with an effective fixed interest rate of 3.41% and an effective issued and outstanding amount of \$667 million (reflecting a fixed exchange rate of \$1.3348). For additional information on these notes, please refer to *Note 26(b)* of the interim consolidated financial statements.
- The March 2017 repayment of \$700 million of Series CD Notes.

In comparison, long-term debt repayments, net of issues, were \$67 million in the third quarter of 2016 and were composed of:

- A reduction in commercial paper to a balance of \$137 million (U.S.\$104 million) at September 30, 2016, from \$975 million (U.S.\$755 million) at June 30, 2016.
- The September 2016 public issue of U.S.\$600 million of senior unsecured notes at 2.80%, due February 16, 2027.

Long-term debt issues, net of repayments, were \$437 million in the first nine months of 2016 and were composed of:

- A decrease in commercial paper from \$256 million (U.S.\$185 million) at December 31, 2015.
- The above-mentioned September 2016 public issue of U.S.\$600 million of senior unsecured notes.

The average term to maturity of our long-term debt (excluding commercial paper and the revolving component of the TELUS International (Cda) Inc. credit facility) increased to approximately 10.8 years at September 30, 2017, compared to approximately 10.7 years at September 30, 2016. Additionally, our weighted average cost of long-term debt (excluding commercial paper and the revolving component of the TELUS International (Cda) Inc. credit facility) was 4.16% at September 30, 2017, as compared to 4.23% at September 30, 2016.

Issue of shares by subsidiary to non-controlling interest

In June 2016, we announced the completion of the agreement whereby a subsidiary issued shares to Baring Private Equity Asia, which acquired a 35% non-controlling interest in TELUS International (Cda) Inc. There was no comparable activity in the third quarter or first nine months of 2017.

7.5 Liquidity and capital resource measures

Net debt was \$13.4 billion at September 30, 2017, an increase of \$1.2 billion when compared to one year earlier, resulting mainly from a net increase in commercial paper outstanding in addition to the issuances of the U.S.\$500 million of senior unsecured notes and the \$325 million of senior unsecured notes, partially offset by the repayment of Series CD Notes, as described in *Section 7.4*.

Fixed-rate debt as a proportion of total indebtedness was 89% as at September 30, 2017, down from 95% one year earlier, mainly due to the increase in commercial paper, which emulates floating-rate debt, partly offset by the two unsecured note issuances in the first nine months of 2017 described in *Section 7.4*.

Net debt to EBITDA – excluding restructuring and other costs ratio was 2.76 times, as measured at September 30, 2017, up from 2.62 one year earlier. Our long-term objective for this measure is within a range of 2.00 to 2.50 times, which we believe is consistent with maintaining investment grade credit ratings in the range of BBB+, or the equivalent and providing reasonable access to capital. As at September 30, 2017, this ratio remains outside of the long-term objective range due to prior issuance of incremental debt primarily for the acquisition in 2014 and 2015 of spectrum licences for approximately \$3.6 billion, and the elevated strategic capital investments in our fibre optic network, partially offset by growth in EBITDA – excluding restructuring and other costs. These acquired licences have more than doubled our national spectrum holdings and represent an investment to extend our network capacity to support continuing data consumption growth, as well as growth in our wireless customer base. We expect this ratio to decline in 2018 and we continue to expect to return to within the objective range in the medium term, consistent with our long-term strategy. While this ratio exceeds our long-term objective range, we are well in compliance with the leverage ratio covenant in our credit facilities, which states that we may not permit our net debt to operating cash flow ratio to exceed 4.00:1.00 (see *Section 7.6 Credit facilities*).

Liquidity and capital resource measures

As at, or 12-month periods ended, September 30	2017	2016	Change
Components of debt and coverage ratios¹ (\$ millions)			
Net debt	13,394	12,217	1,177
EBITDA – excluding restructuring and other costs	4,847	4,668	179
Net interest cost	568	548	20
Debt ratios			
Fixed-rate debt as a proportion of total indebtedness (%)	89	95	(6) pts.
Average term to maturity of long-term debt (excluding commercial paper) (years)	10.8	10.7	0.1
Weighted average interest rate on long-term debt (excluding commercial paper) (%)	4.16	4.23	(0.07) pts.
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)	2.76	2.62	0.14
Coverage ratios¹ (times)			
Earnings coverage	4.0	4.6	(0.6)
EBITDA – excluding restructuring and other costs interest coverage	8.5	8.5	—
Other measures¹ (%)			
Dividend payout ratio	91	76	15 pts.
Dividend payout ratio of adjusted net earnings	79	77	2 pts.

1 See *Section 11.1 Non-GAAP and other financial measures*.

Earnings coverage ratio for the 12-month period ended September 30, 2017, was 4.0 times, down from 4.6 times one year earlier. A decrease in income before borrowing costs and income taxes reduced the ratio by 0.4, while an increase in borrowing costs reduced the ratio by 0.2.

EBITDA – excluding restructuring and other costs interest coverage ratio for the 12-month period ended September 30, 2017, was 8.5 times, consistent with one year earlier. An increase in net interest costs reduced the ratio by 0.3, while growth in EBITDA – excluding restructuring and other costs increased the ratio by 0.3.

Dividend payout ratios: Actual dividend payout decisions will continue to be subject to our Board’s assessment and the determination of our financial position and outlook, as well as our long-term dividend payout ratio guideline of 65 to 75% of prospective net earnings per share. The disclosed basic and adjusted dividend payout ratios are historical measures utilizing the last four quarters of dividends declared and earnings per share. We currently expect that we will be within our target guideline when considered on a prospective dividend payout ratio basis within the medium term. The historical measures for the 12-month period ended September 30, 2017, are presented for illustrative purposes in evaluating our target guideline and both exceeded the objective range. The immediately vesting transformative compensation expense described in our 2016 annual MD&A impacted the dividend payout ratio for the 12-month period ended September 30, 2017 by 14% and was the single largest adjustment in calculating the denominator of adjusted net earnings.

7.6 Credit facilities

At September 30, 2017, we had available liquidity of more than \$1.1 billion from the TELUS revolving credit facility, approximately \$37 million available liquidity from the TELUS International (Cda) Inc. credit facility and \$123 million available from uncommitted letters of credit facilities. In addition, we had \$400 million available under our trade receivables securitization program (see *Section 7.7 Sale of trade receivables*). We are well within our objective of generally maintaining at least \$1.0 billion of available liquidity.

TELUS revolving credit facility

We have a \$2.25 billion (or U.S. dollar equivalent) revolving credit facility with a syndicate of financial institutions that expires on May 31, 2021. The revolving credit facility is used for general corporate purposes, including the backstop of commercial paper, as required.

TELUS revolving credit facility at September 30, 2017

(\$ millions)	Expiry	Size	Drawn	Outstanding undrawn letters of credit	Backstop for commercial paper program	Available liquidity
Five-year revolving facility ¹	May 31, 2021	2,250	—	—	(1,092)	1,158

¹ Canadian dollars or U.S. dollar equivalent.

Our revolving credit facility contains customary covenants, including a requirement that we not permit our consolidated leverage ratio to exceed 4.00 to 1.00 and that we not permit our consolidated coverage ratio to be less than 2.00 to 1.00 at the end of any financial quarter. Our consolidated leverage ratio was approximately 2.76 to 1.00 as at September 30, 2017, and our consolidated coverage ratio was approximately 8.53 to 1.00 as at September 30, 2017. These ratios are expected to remain well above the covenants. There are certain minor differences in the calculation of the leverage ratio and coverage ratio under the revolving credit facility, as compared with the calculation of Net debt to EBITDA – excluding restructuring and other costs and EBITDA – excluding restructuring and other costs interest coverage. Historically, the calculations have not been materially different. The covenants are not impacted by revaluation, if any, of Property, plant and equipment, Intangible assets or Goodwill for accounting purposes. Continued access to our credit facilities is not contingent on maintaining a specific credit rating.

Commercial paper

TELUS Corporation has an unsecured commercial paper program, which is backstopped by our revolving credit facility, enabling us to issue commercial paper up to a maximum aggregate amount of \$1.4 billion at September 30, 2017, including a U.S. dollar-denominated commercial paper program for up to U.S.\$1.0 billion within this maximum aggregate amount. Foreign currency forward contracts are used to manage currency risk arising from issuing commercial paper denominated in U.S. dollars. The commercial paper program is to be used for general corporate purposes, including, but not limited to, capital expenditures and investments. Our ability to reasonably access the commercial paper market in Canada and the U.S. is dependent on our credit ratings (see *Section 7.8 Credit ratings*).

TELUS International (Cda) Inc. credit facility

As at September 30, 2017, TELUS International (Cda) Inc. had a bank credit facility, secured by its assets, expiring on May 31, 2021, with a syndicate of financial institutions. The credit facility is composed of a revolving U.S.\$115 million component and an amortizing U.S.\$215 million term loan component. The credit facility is non-recourse to TELUS Corporation. As at September 30, 2017, \$358 million (\$353 million net of unamortized issue costs) was outstanding, all of which was denominated in U.S. dollars (U.S.\$287 million), with a weighted average interest rate of 2.71%.

Other letter of credit facilities

At September 30, 2017, we had \$219 million of letters of credit outstanding (December 31, 2016 – \$210 million) issued under various uncommitted facilities; such letter of credit facilities are in addition to the ability to provide letters of credit pursuant to our committed bank credit facility. Available liquidity under various uncommitted letters of credit facilities was \$123 million at September 30, 2017.

7.7 Sale of trade receivables

TELUS Communications Inc., a wholly owned subsidiary of TELUS, is a party to an agreement with an arm’s-length securitization trust associated with a major Schedule I Canadian bank, under which it is able to sell an interest in certain trade receivables for an amount up to a maximum of \$500 million. The agreement is in effect until December 31, 2018, and available liquidity was \$400 million as at September 30, 2017. (See *Note 22* of the interim consolidated financial statements.) Sales of trade receivables in securitization transactions are recognized as collateralized Short-term borrowings and thus do not result in our de-recognition of the trade receivables sold.

TELUS Communications Inc. is required to maintain at least a BB credit rating by DBRS Ltd., or the securitization trust may require the sale program to be wound down prior to the end of the term. The necessary credit rating was exceeded as of November 9, 2017.

7.8 Credit ratings

There were no changes to our investment grade credit ratings as of November 9, 2017.

7.9 Financial instruments, commitments and contingent liabilities

Financial instruments

Our financial instruments and the nature of certain risks they may be subject to were described in *Section 7.9* of our 2016 annual MD&A.

Liquidity risk

As a component of our capital structure financial policies, discussed in *Section 4.3 Liquidity and capital resources*, we manage liquidity risk by: maintaining a daily cash pooling process that enables us to manage our available liquidity and our liquidity requirements according to our actual needs; maintaining an agreement to sell trade receivables to an arm’s-length securitization trust; maintaining bilateral bank facilities and syndicated credit facilities; maintaining a commercial paper program; maintaining an in-effect shelf prospectus; continuously monitoring forecast and actual cash flows; and managing maturity profiles of financial assets and financial liabilities.

As of the date of this MD&A, we can offer up to \$1.2 billion of long-term debt or equity securities pursuant to a shelf prospectus that is effective until April 2018.

At September 30, 2017, we had available liquidity of more than \$1.1 billion from unutilized credit facilities and \$123 million from uncommitted letters of credit facilities (see *Section 7.6 Credit facilities*), as well as \$400 million available under our trade receivables securitization program (see *Section 7.7 Sale of trade receivables*). We also had \$488 million in cash and temporary investments at September 30, 2017. This adheres to our objective of generally maintaining at least \$1 billion of available liquidity. We believe that our investment grade credit ratings contribute to reasonable access to capital markets.

Commitments and contingent liabilities

Purchase obligations

As at September 30, 2017, our contractual commitments related to the acquisition of property, plant and equipment were \$198 million through to December 31, 2019, as compared to \$436 million over a period ending December 31, 2020, reported in our 2016 annual report. The decrease was primarily due to the completion of the update to our radio access network in the second quarter of 2017, combined with a decrease in commitments related to our fibre expansion.

Claims and lawsuits

A number of claims and lawsuits (including class actions and intellectual property infringement claims) seeking damages and other relief are pending against us and, in some cases, numerous other wireless carriers and telecommunications service providers. As well, we have received notice of, or are aware of, certain possible claims (including intellectual property infringement claims) against us.

It is not currently possible for us to predict the outcome of such claims, possible claims and lawsuits due to various factors, including: the preliminary nature of some claims; uncertain damage theories and demands; an incomplete factual record; uncertainty concerning legal theories, procedures and their resolution by the courts, at both the trial and the

appeal levels; and the unpredictable nature of opposing parties and their demands. However, when it is determined in respect of a particular claim that payments to claimants are probable, we accrue an estimate of the liability.

Subject to the foregoing limitations, management is of the opinion, based upon legal assessments and information presently available, that it is unlikely that any liability, to the extent not provided for through insurance or otherwise, would have a material effect on our financial position and the results of our operations, including cash flows, with the exception of the items disclosed in *Note 29* of the interim consolidated financial statements.

Indemnification obligations

At September 30, 2017, we had no liability recorded in respect of our indemnification obligations.

7.10 Outstanding share information

Outstanding shares (millions)	September 30, 2017	October 31, 2017
Common Shares	594	595
Common Share options – all exercisable (one for one)	1	1

7.11 Transactions between related parties

Transactions with key management personnel

Our key management personnel have authority and responsibility for overseeing, planning, directing and controlling our activities. They consist of our Board of Directors and our Executive Leadership Team. Total compensation expense amounts for key management personnel were \$11 million and \$30 million, in the third quarter and first nine months of 2017, respectively, as compared to \$15 million and \$40 million in the comparable periods in 2016, respectively. See *Note 30(a)* of the interim consolidated financial statements for additional detail.

Transactions with defined benefit pension plans

We provided management and administrative services to our defined benefit pension plans. Charges for these services were on a cost recovery basis and were immaterial.

Transactions with real estate joint ventures

In the third quarter of 2017, we had transactions with real estate joint ventures, which are related parties to us, as set out in *Note 21* of our interim consolidated financial statements.

As at September 30, 2017, the proportion of space leased in the TELUS Garden office tower was approximately 99%. Closing was completed for the majority of residential units in the TELUS Garden residential condominium project in the fourth quarter of 2016, and the remaining units were closed subsequent to September 30, 2017.

For the TELUS Sky real estate joint venture, commitments and contingent liabilities include construction-related contractual commitments through to 2019 (approximately \$96 million at September 30, 2017) and construction credit facilities (\$342 million with three Canadian financial institutions as 66 2/3% lender and TELUS as 33 1/3% lender).

8. Accounting matters

8.1 Critical accounting estimates

Our significant accounting policies are described in *Note 1* of the Consolidated financial statements for the year ended December 31, 2016. The preparation of financial statements in conformity with generally accepted accounting principles (GAAP) requires us to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as at the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Our critical accounting estimates and significant judgments are generally discussed with the Audit Committee each quarter and are described in *Section 8.1* of our 2016 annual MD&A, which is hereby incorporated by reference.

8.2 Accounting policy developments

Our accounting policy developments were discussed in *Section 8.2 Accounting policy developments* of our 2016 annual MD&A. See *Note 2* of the interim consolidated financial statements for additional details.

9. Update to assumptions

This section contains forward-looking statements, which should be read together with the *Caution regarding forward-looking statements* at the beginning of this MD&A.

The assumptions for our 2017 outlook, as described in *Section 9 General trends, outlook and assumptions* of our 2016 annual MD&A, remain the same, except for the following updates as follows:

- Our revised estimate for economic growth in Canada in 2017 will be approximately 3.0% (previously 2.2% as updated in our first quarter 2017 MD&A). For our incumbent local exchange carrier (ILEC) provinces in Western Canada, we currently estimate that annual rates of economic growth in B.C. will be approximately 3.2% in 2017 (previously 2.3% as reported in our 2016 annual MD&A), and that economic growth in Alberta will be approximately 3.5% in 2017 (previously 2.4% as updated in our first quarter 2017 MD&A).

Which sectors of the economy that experience these growth estimates and the competitive and dynamic environment in which we operate will affect when, and to what extent, we will experience the effects of these economic growth estimates.

- Our cash income tax payments assumption has been revised downward to a range of \$170 million to \$230 million, from an original assumption of a range between \$300 million to \$360 million, due to a reorganization to simplify our legal structure to realize efficiencies and streamline processes which also impacts the timing of cash income tax payments.

9.1 Telecommunications industry regulatory developments and proceedings

Our telecommunications, broadcasting and radiocommunication services are regulated under federal laws by various authorities, including the Canadian Radio-television and Telecommunications Commission (CRTC), Innovation, Science and Economic Development Canada (ISED) and the Minister of Canadian Heritage.

The following are updates to *Section 9.4 Telecommunications industry regulatory developments and proceedings* in our 2016 annual MD&A.

Radiocommunication licences and spectrum-related matters

ISED regulates, among other matters, the allocation and use of radio spectrum in Canada. It also licenses radio apparatus, frequency bands and/or radio channels within various frequency bands to service providers and private users. As well, ISED establishes the terms and conditions attaching to such radio authorizations, including restrictions on licence transfers, coverage obligations, research and development obligations, annual reporting, and obligations concerning mandated roaming and antenna site sharing with competitors.

ISED periodically initiates spectrum-related consultation notices.

ISED Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band

On August 4, 2017, ISED issued *Consultation on a Technical, Policy and Licensing Framework for Spectrum in the 600 MHz Band*. ISED is proposing a 30 MHz set-aside of the 70 MHz of spectrum that will be auctioned off for non-national incumbent providers (i.e. service providers having less than 10% of the national wireless subscriber market share). TELUS has filed comments on October 2, 2017 and reply comments on October 25, 2017 in which we aggressively advocated for an open auction process. No specific auction timing has been announced. It is too early to determine the potential impact that this consultation and ensuing auction process may have on TELUS.

ISED Consultation on the Spectrum Outlook 2018 to 2022

On October 6, 2017, ISED issued *Consultation on the on the Spectrum Outlook 2018 to 2022* to obtain feedback on spectrum activities over the next five years relating to “the release of spectrum for commercial mobile services, licence-exempt applications, satellite services and wireless backhaul services”. ISED is also seeking comments on future technology advancements and associated spectrum demand, as well as on the proposed release of specific spectrum bands, and timing thereof, to meet these future needs. TELUS will be actively participating in this consultation process and filing submissions on the issues under consideration. It is too early to determine the potential impact that this consultation may have on TELUS.

Regulatory and federal government reviews

The CRTC and the federal government have initiated public proceedings to review various matters. They are discussed below.

Telecommunications-related issues

Review of competitor quality of service regime

The CRTC has commenced Telecom Notice of Consultation CRTC 2017-49 to review the regulatory framework for the competitor quality of service regime (CQoS). CQoS applies to certain wholesale services we provide to competitors. It

establishes standards for certain aspects of service provision and requires TELUS to rebate a portion of rates where we fail to meet those standards. TELUS is also subject to tracking, reporting and auditing requirements. This proceeding will consider whether a regime is needed, what services should be subject to the regime, which service providers will be subject to the regime, the appropriateness of the rate rebates and other similar matters. The proceeding is now complete and a decision is not expected before the first quarter of 2018. It is not expected that the outcome of this proceeding will have a significant impact on TELUS.

Review of regulatory framework for message relay service

On February 2, 2017, the CRTC initiated a proceeding to review the regulatory framework and marketplace environment for text-based message relay services. Local exchange carriers are required to provide these services that enable people with a hearing or speech disability to make and receive telephone calls. The CRTC has initiated this review because these services are in declining use in light of technological developments that have made other text messaging services convenient for customers. TELUS is participating in this review. It is not expected that the outcome of this proceeding will have a significant impact on TELUS.

Phase-out of local service subsidy regime

The CRTC has issued Telecom Notice of Consultation CRTC 2017-92 in which it is seeking comments on its proposed approach to the phase-out of the local service subsidy regime and associated policies. This notice is part of the followup activities resulting from *Modern Telecommunications Services – The path forward for Canada’s digital economy*, Telecom Regulatory Policy CRTC 2016-496 issued on December 21, 2016. TELUS is characterized by the CRTC as an incumbent local exchange carrier with respect to wireline voice service. As such, TELUS is subject to certain mandatory service obligations that do not necessarily apply to all of TELUS’ competitors. TELUS participated in this proceeding seeking greater pricing flexibility in regulated high cost exchanges if subsidies are removed and to ensure we are compensated for any obligation to serve. The proceeding is now complete and is scheduled to be followed by a further proceeding to review the price cap and the local forbearance regimes applicable to local service. It is too early to determine the potential impacts of the proceedings on TELUS.

Development of the CRTC’s new broadband funding regime

On April 25, 2017, the CRTC issued *Development of the Commission’s broadband funding regime*, Telecom Notice of Consultation CRTC 2017-112. This consultation follows on the CRTC’s *Modern Telecommunications Services* decision issued on December 21, 2016, in which the CRTC set a new universal service objective that included fixed and mobile wireless broadband Internet access services, and stated that it would begin to shift the focus of its current regulatory frameworks from wireline voice services to broadband in order to assist in expanding the availability and adoption of broadband Internet access services. The CRTC also set out its preliminary views on the establishment of a new broadband funding mechanism in that decision. The CRTC has subsequently issued a new notice calling for comments on the various issues pertaining to the establishment of its new broadband funding regime, including governance of the new fund, operating and accountability frameworks, as well as eligibility and assessment criteria for proposed projects. TELUS is participating in this proceeding and has filed its intervention and responded to interventions filed by other parties thus far, and is awaiting potential requests for information from the CRTC. It is too early to determine the potential impact that this proceeding may have on TELUS.

Governor in Council’s request to the CRTC to reconsider wireless service providers’ wholesale mobile roaming service tariffs

The Governor in Council has ordered the CRTC to reconsider *Wholesale mobile wireless roaming service tariffs - Final terms and conditions*, Telecom Decision CRTC 2017-56. More specifically, the CRTC has been asked to reconsider whether Wi-Fi networks could count as a home network for wireless service providers seeking mandated roaming. The CRTC’s reconsideration is to be completed by March 31, 2018. In response to this request, the CRTC has issued *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, Telecom Notice of Consultation CRTC 2017-259, thereby initiating a proceeding to review this matter. Subsequent to the Governor in Council’s order, a company called TNW Wireless Inc. brought an application requesting the CRTC to order TELUS (and Bell Mobility) to provide wholesale roaming for a primarily Wi-Fi based service offering. It is not yet clear whether the CRTC will consider this matter separately from the review proceeding. It is too early to determine the potential impact that this proceeding may have on TELUS.

Decision on Review of the Wireless Code

On June 15, 2017, the CRTC issued Telecom Regulatory Policy CRTC 2017-200, *Review of the Wireless Code*. The major changes to the Wireless Code relate to: (i) the removal of unlocking fees and the requirement to sell all devices unlocked as of December 1, 2017; (ii) changes to how the \$50 data usage cap and \$100 data roaming cap are calculated and how consent to obtain additional usage is obtained; and (iii) amendments to the mandated trial period for customers who obtain a postpaid wireless contract. Changes to the Wireless Code are to be implemented by December 1, 2017. TELUS has commenced its implementation process and is assessing the impacts of these changes. However, it is not expected that these changes will have a significant impact on TELUS.

Broadcasting-related issues

Review and modernizing of the Broadcasting Act and Telecommunications Act

In the federal government’s budget announcement on March 22, 2017, the federal government recognized the impact of the digital age on Canada’s media and broadcasting industries and indicated its intention to review and modernize the *Broadcasting Act* and the *Telecommunications Act*, looking specifically at issues relating to content creation in the digital age, net neutrality and cultural diversity. This announcement dovetails with the review of Canada’s cultural policies as described in *Section 9.4* of our 2016 annual MD&A and with the new order for the CRTC to hold hearings and report back to the federal government on distribution models of the future and how Canadians will access programming, described below.

CRTC ordered to report back to the federal government on distribution models of the future

On September 22, 2017, the federal government issued an Order in Council pursuant to section 15 of the *Broadcasting Act* to request that the CRTC hold hearings and report on distribution models of the future and how Canadians will access programming. The deadline for the CRTC’s report back to the federal government is June 1, 2018. It is expected that the CRTC will launch a consultation process by the end of 2017. TELUS will participate in these hearings. While the CRTC’s report to the federal government will likely form part of the record for the later review of the *Broadcasting Act* and the *Telecommunications Act*, it is not expected to have a significant impact on TELUS.

Minister of Canadian Heritage’s Creative Canada Policy Framework

On September 28, 2017, the Minister of Canadian Heritage announced her Creative Canada Policy Framework. This policy framework is focused on: 1) investing in Canadian creators and cultural entrepreneurs; 2) promoting discovery and distribution of Canadian content at home and globally; and 3) strengthening public broadcasting and support local news. The Minister has indicated in her official speech unveiling this new policy framework that the federal government would not support any new tax on Internet service providers. As a result, this new policy framework is not expected to have a significant impact on TELUS.

Review of the Copyright Act and Copyright Board

The *Copyright Act* is slated for a review in 2017 and is expected to begin soon. While the Minister of Canadian Heritage has indicated her intention that this review be focused on creators, the *Copyright Act* falls under the mandate of the Minister of ISED which will also look to balance the interests of consumers in innovation. The policy approach for copyright has traditionally been based on a balancing of interests. The review is not expected to have a significant impact on TELUS.

North American Free Trade Agreement Negotiations

The Office of the United States Trade Representative has released its summary of objectives for the renegotiation of the North American Free Trade Agreement (NAFTA) between Canada, the United States and Mexico. The United States government has identified a number of objectives including trade in services (including telecommunications services), digital trade in goods and services and cross-border data flows, intellectual property (including copyright) and competition policy, amongst other issues, as potential items for negotiation. The Government of Canada has since outlined Canada’s ten priorities for the NAFTA renegotiations, none of which include detailed telecommunications or intellectual property objectives. On the issue of cultural exemptions, the Government of Canada has clearly stated that it is committed to maintaining the current exemption for the cultural industries found in NAFTA. NAFTA negotiations have begun but are expected to continue through to the end of 2017. It remains unclear what issues will be negotiated, the outcome of negotiations, and the potential impact that the NAFTA negotiations may have on TELUS.

10. Risks and risk management

The principal risks and uncertainties that could affect our future business results and associated risk mitigation activities were described in our 2016 annual MD&A and have not materially changed since December 31, 2016. Reference is made as well to the summary of risks and uncertainties in the *Caution regarding forward-looking statements* at the beginning of this MD&A.

11. Definitions and reconciliations

11.1 Non-GAAP and other financial measures

We have issued guidance on and report certain non-GAAP measures that are used to evaluate the performance of TELUS, as well as to determine compliance with debt covenants and to manage our capital structure. As non-GAAP measures generally do not have a standardized meaning, they may not be comparable to similar measures presented by other issuers. Securities regulations require such measures to be clearly defined, qualified and reconciled with their nearest GAAP measure.

Adjusted Net income and adjusted basic earnings per share: These measures are used to evaluate performance at a consolidated level and exclude items that may obscure the underlying trends in business performance. These measures should not be considered alternatives to Net income and basic earnings per share in measuring TELUS’ performance. Items that may, in management’s view, obscure the underlying trends in business performance include significant gains or losses associated with real estate redevelopment partnerships, gains on the exchange of wireless spectrum licences, restructuring and other costs, long-term debt prepayment premiums (when applicable), income tax-related adjustments and asset retirements related to restructuring activities. (See *Analysis of Net income* and *Analysis of basic EPS* in Section 1.3).

Capital intensity: This measure is calculated as capital expenditures (excluding spectrum licences) divided by total operating revenues. This measure provides a basis for comparing the level of capital expenditures to those of other companies of varying size within the same industry.

Dividend payout ratio: This is a historical measure calculated as the sum of the last four quarterly dividends declared per Common Share, as reported in the financial statements, divided by the sum of basic earnings per share for the most recent four quarters for interim reporting periods. For fiscal years, the denominator is annual basic earnings per share. Our policy guideline for the annual dividend payout ratio is on a prospective basis, rather than on a trailing basis, and is 65 to 75% of sustainable earnings per share on a prospective basis. (See *Section 7.5 Liquidity and capital resource measures*.)

Calculation of Dividend payout ratio

12-month periods ended September 30 (\$)	2017	2016
Numerator – sum of the last four quarterly dividends declared per Common Share	1.9450	1.80
Denominator – Net income per Common Share	2.13	2.37
Ratio (%)	91	76

Dividend payout ratio of adjusted net earnings: This ratio is a historical measure calculated as the sum of the last four quarterly dividends declared per Common Share, as reported in the financial statements, divided by adjusted net earnings per share. Adjusted net earnings per share is basic earnings per share, as used in the **Dividend payout ratio**, adjusted to exclude the gain on the exchange of wireless spectrum licences, net gains and equity income from real estate joint venture developments, business acquisition-related provisions, immediately vesting transformative compensation expense, long-term debt prepayment premium (when applicable) and income tax-related adjustments.

Calculation of Dividend payout ratio of adjusted net earnings

12-month periods ended September 30 (\$)	2017	2016
Numerator – sum of the last four quarterly dividends declared per Common Share	1.9450	1.80
Adjusted net earnings (\$ millions):		
Net income attributable to Common Shares	1,260	1,403
Deduct net gains and equity income from real estate joint venture developments, after income taxes	(7)	(11)
Deduct gain on the exchange of wireless spectrum licences, after income taxes	—	(13)
Add back business acquisition-related provisions, after income taxes	2	13
Add back transformative compensation expense, after income taxes	224	—
Add back net unfavourable (deduct net favourable) income tax-related adjustments	(18)	(11)
	1,461	1,381
Denominator – Adjusted net earnings per Common Share	2.47	2.33
Adjusted ratio (%)	79	77

Earnings coverage: This measure is defined in the Canadian Securities Administrators’ National Instrument 41-101 and related instruments, and is calculated as follows:

Calculation of Earnings coverage

12-month periods ended September 30 (\$ millions, except ratio)	2017	2016
Net income attributable to Common Shares	1,260	1,403
Income taxes (attributable to Common Shares)	431	493
Borrowing costs (attributable to Common Shares) ¹	557	532
Numerator	2,248	2,428
Denominator – Borrowing costs	557	532
Ratio (times)	4.0	4.6

1 Interest on Long-term debt plus Interest on short-term borrowings and other plus long-term debt prepayment premium, adding back capitalized interest and deducting borrowing costs attributable to non-controlling interests.

EBITDA (earnings before interest, income taxes, depreciation and amortization): We have issued guidance on and report EBITDA because it is a key measure used to evaluate performance at a consolidated level. EBITDA is commonly reported and widely used by investors and lending institutions as an indicator of a company’s operating performance and ability to incur and service debt, and as a valuation metric. EBITDA should not be considered an alternative to Net income in measuring TELUS’ performance, nor should it be used as an exclusive measure of cash flow. EBITDA as calculated by TELUS is equivalent to Operating revenues less the total of Goods and services purchased expense and Employee benefits expense.

We calculate EBITDA – excluding restructuring and other costs, as it is a component of the **EBITDA – excluding restructuring and other costs interest coverage** ratio and the **Net debt to EBITDA – excluding restructuring and other costs** ratio.

We may also calculate Adjusted EBITDA to exclude items of an unusual nature that do not reflect our ongoing operations and should not, in our opinion, be considered in a valuation metric, or should not be included in an assessment of our ability to service or incur debt.

EBITDA reconciliation

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2017	2016	2017	2016
Net income	370	355	1,197	1,149
Financing costs	149	129	429	386
Income taxes	130	132	420	411
Depreciation	410	388	1,203	1,158
Amortization of intangible assets	137	127	402	356
EBITDA	1,196	1,131	3,651	3,460
Add back restructuring and other costs	36	60	79	131
EBITDA – excluding restructuring and other costs	1,232	1,191	3,730	3,591
Deduct gain on the exchange of wireless spectrum licences	—	—	—	(15)
Deduct net gains and equity income from real estate joint venture developments	—	(10)	(3)	(19)
Adjusted EBITDA	1,232	1,181	3,727	3,557

EBITDA – excluding restructuring and other costs interest coverage: This measure is defined as EBITDA – excluding restructuring and other costs, divided by Net interest cost, calculated on a 12-month trailing basis. This measure is similar to the coverage ratio covenant in our credit facilities, as described in *Section 7.6 Credit facilities*.

Free cash flow: We report this measure as a supplementary indicator of our operating performance. It should not be considered an alternative to the measures in the interim consolidated statements of cash flows. Free cash flow excludes certain working capital changes (such as trade receivables and trade payables), proceeds from divested assets and other sources and uses of cash, as found in the Consolidated statements of cash flows. It provides an indication of how much cash generated by operations is available after capital expenditures (excluding purchases of spectrum licences) that may be used to, among other things, pay dividends, repay debt, purchase shares or make other investments. Free cash flow may be supplemented from time to time by proceeds from divested assets or financing activities.

Free cash flow calculation

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2017	2016	2017	2016
EBITDA	1,196	1,131	3,651	3,460
Deduct non-cash gains from the sale of property, plant and equipment	(2)	(4)	(3)	(15)
Restructuring costs net of disbursements	(18)	12	(64)	(27)
Deduct net gains and equity income from real estate joint venture developments	—	(10)	(3)	(19)
Deduct gain on the exchange of wireless spectrum licences	—	—	—	(15)
Items from the interim consolidated statements of cash flows:				
Share-based compensation	22	27	61	65
Net employee defined benefit plans expense	20	23	61	67
Employer contributions to employee defined benefit plans	(17)	(14)	(52)	(53)
Interest paid	(146)	(132)	(413)	(387)
Interest received	1	1	2	1
Capital expenditures (excluding spectrum licences)	(821)	(787)	(2,355)	(2,174)
Other	—	—	6	—
Free cash flow before income taxes	235	246	891	903
Income taxes paid, net of refunds	(20)	(148)	(199)	(571)
Free cash flow	215	98	692	332

The following reconciles our definition of free cash flow with cash provided by operating activities.

Free cash flow reconciliation with Cash provided by operating activities

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2017	2016	2017	2016
Free cash flow	215	98	692	332
Add (deduct):				
Capital expenditures (excluding spectrum licences)	821	787	2,355	2,174
Adjustments to reconcile to Cash provided by operating activities	97	147	(79)	(19)
Cash provided by operating activities	1,133	1,032	2,968	2,487

Net debt: We believe that net debt is a useful measure because it represents the amount of Short-term borrowings and long-term debt obligations that are not covered by available Cash and temporary investments. The nearest IFRS measure to net debt is Long-term debt, including Current maturities of Long-term debt. Net debt is a component of the **Net debt to EBITDA – excluding restructuring and other costs** ratio.

Calculation of Net debt

At September 30 (\$ millions)	2017	2016
Long-term debt including current maturities	13,618	12,454
Debt issuance costs netted against long-term debt	72	67
Derivative liabilities, net	76	24
Accumulated other comprehensive income amounts arising from financial instruments used to manage interest rate and currency risks associated with U.S. dollar-denominated long-term debt (excluding tax effects)	16	(18)
Cash and temporary investments	(488)	(410)
Short-term borrowings	100	100
Net debt	13,394	12,217

Net debt to EBITDA – excluding restructuring and other costs: This measure is defined as net debt at the end of the period divided by 12-month trailing EBITDA – excluding restructuring and other costs. Our long-term policy guideline for this ratio is from 2.00 to 2.50 times. (See discussion in *Section 7.5 Liquidity and capital resource measures*.) This measure is similar to the leverage ratio covenant in our credit facilities, as described in *Section 7.6 Credit facilities*.

Net interest cost: This measure is the denominator in the calculation of **EBITDA – excluding restructuring and other costs interest coverage**. Net interest cost is defined as financing costs, excluding capitalized long-term debt interest, employee defined benefit plans net interest and recoveries on redemption and repayment of debt, calculated on a 12-month trailing basis. No recoveries on redemption and repayment of debt were recorded in 2017 and 2016. Expenses recorded for the long-term debt prepayment premium, if any, are included in net interest cost. Net interest cost was \$568 million in the 12-month period ended September 30, 2017, and \$548 million in the 12-month period ended September 30, 2016.

Restructuring and other costs: With the objective of reducing ongoing costs, we incur associated incremental, non-recurring restructuring costs. We may also incur atypical charges when undertaking major or transformational changes to our business or operating models. In addition, we include incremental external costs incurred in connection with business acquisition or disposition activity, as well as litigation costs, in the context of significant losses and settlements, in other costs.

Components of restructuring and other costs

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2017	2016	2017	2016
Goods and services purchased	31	23	58	39
Employee benefits expense	5	37	21	92
Restructuring and other costs included in EBITDA	36	60	79	131

11.2 Operating indicators

The following measures are industry metrics that are useful in assessing the operating performance of a wireless and wireline telecommunications entity, but do not have a standardized meaning under IFRS-IASB.

Average revenue per subscriber unit per month (ARPU) for wireless subscribers is calculated as network revenue divided by the average number of subscriber units on the network during the period and is expressed as a rate per month.

Churn per month (or churn) is calculated as the number of subscriber units deactivated during a given period divided by the average number of subscriber units on the network during the period and is expressed as a rate per month. A TELUS, Koodo or Public Mobile brand prepaid wireless subscriber is deactivated when the subscriber has no usage for 90 days following expiry of the prepaid credits.

Wireless subscriber unit (subscriber) is defined as an active mobile recurring revenue-generating unit (e.g. mobile phone, tablet or mobile Internet key) with a unique subscriber identifier (SIM or IMEI number). In addition, TELUS has a direct billing or support relationship with the user of each device. Subscriber units exclude machine-to-machine devices (a subset of the Internet of Things), such as those used for asset tracking, remote control monitoring and meter readings, vending machines and wireless automated teller machines.

Wireline subscriber connection is defined as an active recurring revenue-generating unit that has access to stand-alone services, including fixed Internet access, TELUS TV and residential network access lines (NALs). In addition, TELUS has a direct billing or support relationship with the user of each service. Reported subscriber units exclude business NALs as the impact of migrating from voice lines to IP services has led to business NAL losses without a similar decline in revenue, thus diminishing its relevance as a key performance indicator.