Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 40-F

o REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

OR

x ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2016 **Commission File Number 001-15144**

TELUS Corporation

(Exact Name of Registrant as specified in its charter)

British Columbia, Canada
(Province or other jurisdiction of incorporation or organization)

4812
(Primary Standard Industrial Classification Code Number (if applicable))

7h Floor – 510 West Georgia Street
Vancouver, British Columbia V6B 0M3, Canada
(604) 697-8044
(Address and telephone number of Registrant's principal executive offices)

CT Corporation System, 111 Eighth Avenue, 13th Floor
New York, New York 10011
(212) 590-9200
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Securities registered pursuant to section 12(b) of the Act.

Title of each class	Name of each exchange on which registered
Common Shares	**New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None
(Title of Class)

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None
(Title of Class)

For annual reports, indicate by check mark the information filed with this Form:

x Annual information form **x** Audited annual financial statements

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of December 31, 2016:

590,424,956 Common Shares

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes **x** No o

Indicate by check mark whether the Registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files).

Yes o No o

The annual report on Form 40-F shall be incorporated by reference into or as an exhibit to, as applicable, each of the following of the Registrant's Registration Statements under the Act: Form S-8 (File No. 333-181463), Form F-3 (File No. 333-186874), and Form F-10 (File No. 333-213497).

Table of Contents

TABLE OF CONTENTS

CONTROLS AND PROCEDURES	1
IDENTIFICATION OF THE AUDIT COMMITTEE	1
AUDIT COMMITTEE FINANCIAL EXPERT	2
CODE OF ETHICS	2
PRINCIPAL ACCOUNTANT FEES AND SERVICES	2
OFF-BALANCE SHEET ARRANGEMENTS	3
TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS	3
INTERACTIVE DATA FILE	3
MINE SAFETY DISCLOSURE	3
SUMMARY OF SIGNIFICANT DIFFERENCES FROM NYSE CORPORATE GOVERNANCE RULES	3
UNDERTAKING AND CONSENT TO SERVICE OF PROCESS	4
SIGNATURES	5
EXHIBIT INDEX	6

Table of Contents

CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Based on the evaluation by TELUS Corporation ("TELUS" or the "Registrant") as of December 31, 2016 of the effectiveness of the design and operation of the Registrant's disclosure controls and procedures under the supervision of the Audit Committee, including the Registrant's Chief Executive Officer and Chief Financial Officer, the Chief Executive Officer and Chief Financial Officer have concluded that the Registrant's disclosure controls and procedures as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act") are effective to a reasonable level of assurance to ensure that information required to be disclosed by the Registrant in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the United States Securities and Exchange Commission's (the "SEC") rules and forms.

It should be noted that while TELUS' Chief Executive Officer and Chief Financial Officer believe that TELUS' disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that TELUS' disclosure controls and procedures or internal control over financial reporting will prevent all errors and fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

Management's Annual Report on Internal Control Over Financial Reporting

The report of management on our internal control over financial reporting is located under the heading "Report of Management on Internal Control Over Financial Reporting" in our audited consolidated financial statements, which are filed as Exhibit 99.4 to this annual report on Form 40-F, and is incorporated by reference herein.

Attestation Report of Independent Registered Public Accounting Firm

The attestation report on our internal control over financial reporting is located under the heading "Report of Independent Registered Public Accounting Firm" in our audited consolidated financial statements, which are filed as Exhibit 99.4 to this annual report on Form 40-F, and is incorporated by reference herein.

Changes in Internal Controls Over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the above evaluation that occurred during the period covered by this annual report on Form 40-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

IDENTIFICATION OF THE AUDIT COMMITTEE

TELUS has a separately designated standing Audit Committee. The current members of the Audit Committee are Bill MacKinnon (Chair), Dick Auchinleck, Raymond Chan, Sabi Marwah and David Mowat. All members of the Audit Committee are "independent" as such term is defined under applicable securities laws and applicable New York Stock Exchange ("NYSE") rules.

Table of Contents

AUDIT COMMITTEE FINANCIAL EXPERT

The Board of Directors (the "Board") of TELUS has determined that Bill MacKinnon, the Audit Committee Chair, is an "audit committee financial expert" as such term is defined by U.S. securities laws and "independent" as noted above. The information contained under the heading "Audit Committee" on page 24 of TELUS' year-end 2016 Annual Information Form, filed as Exhibit 99.3 to this annual report on Form 40-F, is incorporated by reference herein.

CODE OF ETHICS

The Registrant has adopted a Code of Ethics and Conduct that applies to all directors, officers, including the Chief Executive Officer and the Chief Financial Officer, and employees. The Code of Ethics and Conduct has been posted on the Registrant's Internet website at http://about.telus.com/community/english/investor_relations/corporate_governance/ethics. The Code is also available to any person, upon request, without charge by contacting TELUS Investor Relations by telephone at 1-800-667-4871 or by mail at 510 W. Georgia Street, 8th Floor, Vancouver, B.C. V6B 0M3.

The Board amended the Ethics Policy in February 2016 and in February 2017 to make minor clarifications to existing provisions.

PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table is a summary of billing by Deloitte LLP, as external auditor of TELUS (the "External Auditor"), during the period from January 1, 2016 to December 31, 2016 (all amounts are in Canadian dollars):

Type of work	Deloitte LLP	%
Audit fees[1]	$ 4,137,606	92.3
Audit-related fees[2]	$ 132,945	3.0
Tax fees[3]	$ 17,700	0.4
All other fees[4]	$ 196,892	4.4
Total	**$ 4,485,143**	**100.0**

(1) Includes fees for services rendered by the External Auditor in relation to the audit and review of our financial statements and in connection with our statutory and regulatory filings.
(2) Includes fees for translation services rendered by the External Auditor in relation to the audit or review of our financial statements that were not part of audit fees.
(3) Relates to tax compliance, tax advice and tax planning.
(4) Includes fees for services rendered by the External Auditor that were not in relation to the audit or review of our financial statements, such as the community investment impact measurement (2015/2016) and privacy data insights (2016).

The following table is a summary of billing by the External Auditor, during the period from January 1, 2015 to December 31, 2015 (all amounts are in Canadian dollars):

Type of work	Deloitte LLP	%
Audit fees[1]	$ 3,844,128	88.6
Audit-related fees[2]	$ 140,463	3.2
Tax fees[3]	$ 102,562	2.4
All other fees[4]	$ 253,724	5.8
Total	**$ 4,340,877**	**100.0**

Table of Contents

(1) Includes fees for services rendered by the External Auditor in relation to the audit and review of our financial statements and in connection with our statutory and regulatory filings.
(2) Includes fees for services rendered by the External Auditor in relation to the audit or review of our financial statements that were not part of audit fees.
(3) Relates to tax compliance, tax advice and tax planning.
(4) Includes fees for services rendered by the External Auditor that are not in relation to the audit or review of our financial statements, such as sustainability diagnostics procedures and the community investment impact measurement.

All requests for non-prohibited audit, audit related and non-audit services provided by the External Auditor and its affiliates to TELUS are required to be pre-approved by the Audit Committee of the Board. To enable this, TELUS has implemented a process by which all requests for services involving the External Auditor are routed for review by the VP Risk Management and Chief Internal Auditor to validate that the requested service is a non-prohibited service and to verify that there is a compelling business reason for the request. If the request passes this review, it is then forwarded to the Chief Financial Officer for further review. Pending the Chief Financial Officer's affirmation, the request is then presented to the Audit Committee for its review, evaluation and pre-approval or denial at its next scheduled quarterly meeting. If the timing of the request is urgent, it is provided to the Audit Committee Chair for his review, evaluation and pre-approval or denial on behalf of the Audit Committee (with the Audit Committee's review at the next scheduled quarterly meeting). Throughout the year, the Audit Committee monitors the actual versus approved expenditure for each of the approved requests.

OFF-BALANCE SHEET ARRANGEMENTS

The Registrant has no off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on the financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The information provided under the heading "Contractual obligations" set forth on page 48 of the Management's Discussion and Analysis filed as Exhibit 99.4 to this annual report on Form 40-F, is incorporated by reference herein.

INTERACTIVE DATA FILE

The Registrant is not currently required to submit to the SEC, or post to its corporate website, an Interactive Data File.

MINE SAFETY DISCLOSURE

Not applicable.

SUMMARY OF SIGNIFICANT DIFFERENCES FROM NYSE CORPORATE GOVERNANCE RULES

A summary of significant ways in which corporate governance practices followed by TELUS differ from the corporate governance practices required to be followed by U.S. domestic companies under the New York Stock Exchange's Listing Standards (disclosure required by section 303A.11 of the NYSE Listed Company Manual) is available on the Registrant's corporate governance website at http://about.telus.com/community/english/investor_relations/corporate_governance/governance_practices

Table of Contents

UNDERTAKING AND CONSENT TO SERVICE OF PROCESS

A. Undertaking

The Registrant undertakes to make available, in person or by telephone, representatives to respond to inquiries made by the SEC staff, and to furnish promptly, when requested to do so by the SEC staff, information relating to: the securities registered pursuant to Form 40-F; the securities in relation to which the obligation to file an annual report on Form 40-F arises; or transactions in said securities.

B. Consent to Service of Process

A Form F-X signed by the Registrant and its agent for service of process was previously filed with the SEC.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Exchange Act, the Registrant certifies that it meets all of the requirements for filing on Form 40-F and has duly caused this annual report to be signed on its behalf by the undersigned, thereto duly authorized.

Registrant: TELUS Corporation

By: *"Monique Mercier"*
Monique Mercier
Executive Vice President, Corporate Affairs and Chief Legal and Governance Officer

Date: March 16, 2017

Table of Contents

EXHIBIT INDEX

The following documents are filed as exhibits to this annual report on Form 40-F:

Exhibit Number	Document
99.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act
99.2	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act
99.3	Annual Information Form for the year ended December 31, 2016, dated March 15, 2017
99.4	Audited Consolidated Financial Statements as at and for the year ended December 31, 2016 and Management's Discussion and Analysis

99.5	Consent of Independent Registered Public Accounting Firm
99.6	Amended 2017 Code of Ethics and Conduct

Exhibit 99.1:

Certification

I, Darren Entwistle, certify that:

1. I have reviewed this annual report on Form 40-F of TELUS Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, financial performance and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing equivalent function):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 16, 2017.

"Darren Entwistle"
Darren Entwistle
President and Chief Executive Officer

Certification

I, Doug French, certify that:

1. I have reviewed this annual report on Form 40-F of TELUS Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, financial performance and cash flows of the issuer as of, and for, the periods presented in this report;

4. The issuer's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the issuer and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the issuer, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the issuer's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the issuer's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the issuer's internal control over financial reporting; and

5. The issuer's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the issuer's auditors and the audit committee of the issuer's board of directors (or persons performing equivalent function):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the issuer's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the issuer's internal control over financial reporting.

Date: March 16, 2017.

"Doug French"

Doug French
Executive Vice President and Chief Financial Officer

Exhibit 99.2:

Certifications

Pursuant to 18 U.S.C. §1350, each of the undersigned officers of TELUS Corporation ("TELUS") hereby certifies that to his knowledge, (a) the annual report for the period ended December 31, 2016 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and (b) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of TELUS.

Date: March 16, 2017.

"Darren Entwistle"
Darren Entwistle
President and Chief Executive Officer

Date: March 16, 2017.

"Doug French"
Doug French
Executive Vice President and Chief Financial Officer

Exhibit 99.3:

Annual Information Form for the year ended December 31, 2016, dated March 15, 2017

[previously filed on SEDAR]

TELUS Corporation
Annual Information Form
for the year ended December 31, 2016

March 15, 2017

1. 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 multi-year share purchase program. 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.

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 new wireless networks; the ability of industry competitors to successfully launch their respective platforms and to combine a mix of residential local VoIP, long distance, 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 including new or rebranded entrants, 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) and churn for all services (wireless and wireline), as do customer usage patterns, flat-rate pricing trends for voice and data, inclusive rate plans for voice and data and increasing 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; continuation of wireless voice ARPU declines as a result of, among other factors, substitution to messaging and OTT applications; substitution to increasingly available Wi-Fi services from wireless services; and disruptive technologies such as OTT Internet protocol (IP) services that may displace our services including TV and entertainment services, and impact revenue.

- 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 understand and 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 (such as

TELUS TV); 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 such as 5G; utilizing newly 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 Canadian Radio-television and Telecommunications Commission (CRTC) review of the Wireless Code; 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; future spectrum auctions (including limitations on established wireless providers, 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; the potential impacts from the CRTC's decision to require pro-rated refunds when customers terminate their services; the CRTC's examination of differential pricing practices related to Internet data plans; the impact from the review of Canada' cultural policies by the Minister of Canadian Heritage; vertical integration in the broadcasting industry resulting in competitors owning broadcast content services and timely and effective enforcement of related regulatory safeguards; 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 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 (including our ability to successfully integrate acquisitions, complete divestitures or establish partnerships in a timely manner, and realize expected strategic benefits), the risk that transaction with BCE Inc. to acquire a portion of Manitoba Telecom Services Inc.'s postpaid wireless customers and retail locations may not be completed and there being no assurance regarding the successful migration of such customers and dealers; 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 expected benefits of the immediately vesting transformative compensation initiative; business integrations; business process outsourcing; offshoring and reorganizations, including any 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, as required.

- 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 and ability to sustain and complete our multi-year share purchase program through 2019. These programs 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, 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. The share purchase program may be affected by a change in our intention to purchase shares, and the assessment and determination of our Board from time to time, based on the Company's financial position and outlook, and the market price of TELUS shares. Consequently, there can be no assurance that these programs will be maintained through 2019.

- Taxation matters including: interpretation of complex tax laws by the tax authorities that may differ from our interpretations; changes in tax laws, including tax rates; tax expenses being materially different than anticipated; elimination of income tax deferrals through the use of different tax year-ends for operating partnerships and corporate partners; and tax collection authorities adopting more aggressive auditing practices.

- Litigation and legal matters including: our ability to defend successfully against investigations, regulatory proceedings, 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 fuels 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 the incoming U.S. administration; 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/U.S. dollar exchange rates.

These risks are described in additional detail in *Section 10 Risks and risk management* in our 2016 Management's discussion and analysis (MD&A). That description is incorporated by reference in this cautionary statement but is 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.

2. TABLE OF CONTENTS

Item			Page reference		
				Incorporated by reference from the 2016 annual	
			Annual Information Form	Management's discussion and analysis [1]	Financial statements
1	CAUTION REGARDING FORWARD-LOOKING STATEMENTS		2		
2	TABLE OF CONTENTS		5		
3	CORPORATE STRUCTURE		6		
	3.1	Name, address and incorporation	6		
	3.2	Intercorporate relationships and TELUS subsidiaries	6		
4	GENERAL DEVELOPMENT OF BUSINESS		7		
	4.1	Three-year history	7	5, 12-15, 29-36, 49, 57-60	
5	DESCRIPTION OF BUSINESS		12		
	5.1	Who we are	12		
		(a) Organization	12		
		(b) Our strategy	13	14-16	
		(c) Business overview	13	16-19, 24-26, 29-36, 52, 57-60, 66-72	
		(d) Competition	14	16-17, 66-69	
		(e) Corporate social responsibility and environment	14	82-84	
		(f) Employee relations	14	18, 75	
	5.2	Risk factors	15	64-86	
	5.3	Regulation	15	60-64, 69, 74	
6	DIVIDENDS AND DISTRIBUTIONS		16		Note 12
7	DESCRIPTION OF CAPITAL STRUCTURE		17		
	7.1	General description of capital structure	17		
	7.2	Constraints	18	74-75	

	7.3 Ratings	19	42-44	
8	MARKET FOR SECURITIES	21		
	8.1 Trading price and volume	21		
	8.2 Prior sales	21		Note 26
9	DIRECTORS AND OFFICERS	22		
	9.1 Name, occupation and security holding	22		
	9.2 Cease trade orders, bankruptcies, penalties or sanctions			
10	LEGAL PROCEEDINGS AND REGULATORY ACTIONS	24	80-82	Note 29
11	INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS	24		
12	TRANSFER AGENT AND REGISTRAR	24		
13	MATERIAL CONTRACTS	24		
14	INTERESTS OF EXPERT	24		
15	AUDIT COMMITTEE	24		
16	ADDITIONAL INFORMATION	25		
APPENDIX A: TERMS OF REFERENCE FOR THE AUDIT COMMITTEE		26		

(1) As filed on SEDAR on February 9, 2017

Each Section of the Management's Discussion and Analysis for the fiscal year ended December 31, 2016 (2016 annual MD&A), as well as the Management's Discussion and Analysis for each of the years ended December 31, 2015 and 2014, that are referred to in this Annual Information Form (AIF) are incorporated by reference and filed on SEDAR at sedar.com. For greater certainty, notwithstanding references to TELUS' information circular, consolidated financial statements, sustainability report and the telus.com website, these documents and website are not incorporated into this AIF.

In this AIF, unless otherwise stated, references to "TELUS", "the Company", "we", "us" or "our" are to TELUS Corporation and all of its subsidiaries, except where it is clear that these terms mean only TELUS Corporation.

In this AIF, except where otherwise indicated, all references to dollars or $ are to Canadian dollars.

3. CORPORATE STRUCTURE

3.1 Name, address and incorporation

TELUS was incorporated under the *Company Act* (British Columbia) (the B.C. Company Act) on October 26, 1998, under the name BCT.TELUS Communications Inc. (BCT). On January 31, 1999, pursuant to a court-approved plan of arrangement under the *Canada Business Corporations Act* among BCT, BC TELECOM Inc. (BC TELECOM) and the former Alberta-based TELUS Corporation (TC), BCT acquired all of the shares of BC TELECOM and TC in exchange for common shares and non-voting shares of BCT, and BC TELECOM was dissolved. On May 3, 2000, BCT changed its name to TELUS Corporation and in February 2005, the Company transitioned under the *Business Corporations Act* (British Columbia), successor to the B.C. Company Act. On February 4, 2013, in accordance with the terms of a court approved plan of arrangement under the *Business Corporations Act* (British Columbia), TELUS exchanged all of its issued and outstanding Non-Voting Shares into Common Shares on a one-for-one basis. On April 16, 2013, TELUS subdivided its Common Shares on a two-for-one basis.

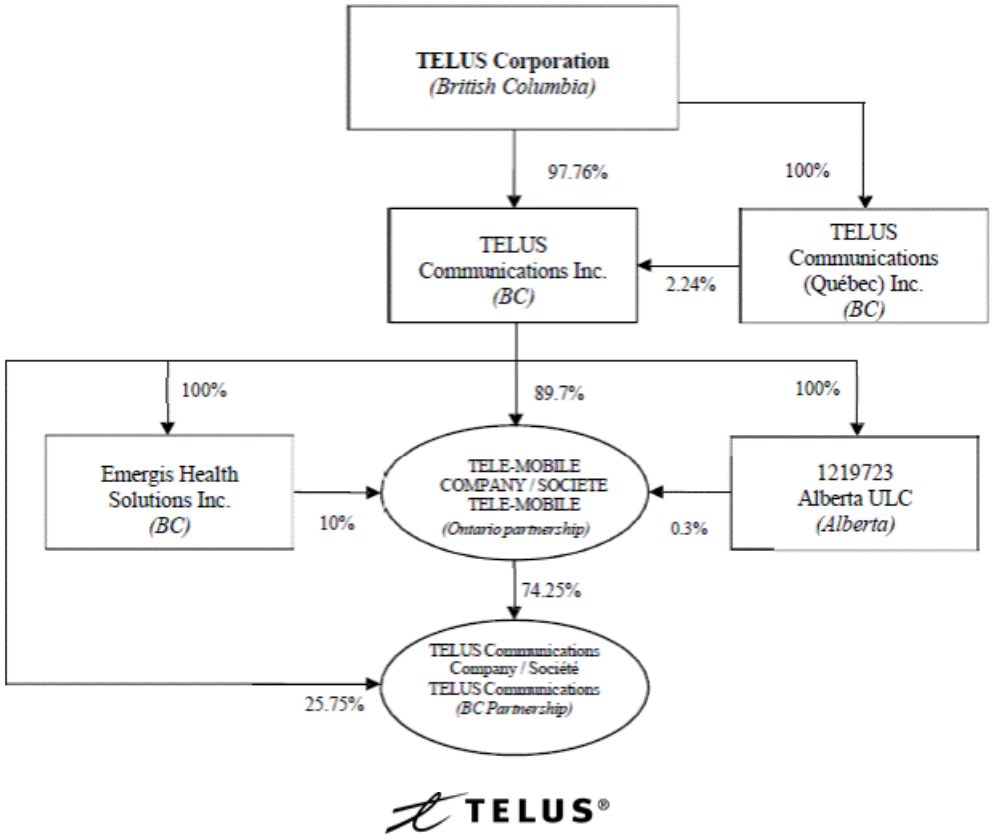
TELUS maintains its registered office at Floor 7, 510 West Georgia, Vancouver, British Columbia (B.C.) and its executive office at Floor 23, 510 West Georgia, Vancouver, B.C.

3.2 Intercorporate relationships and TELUS subsidiaries

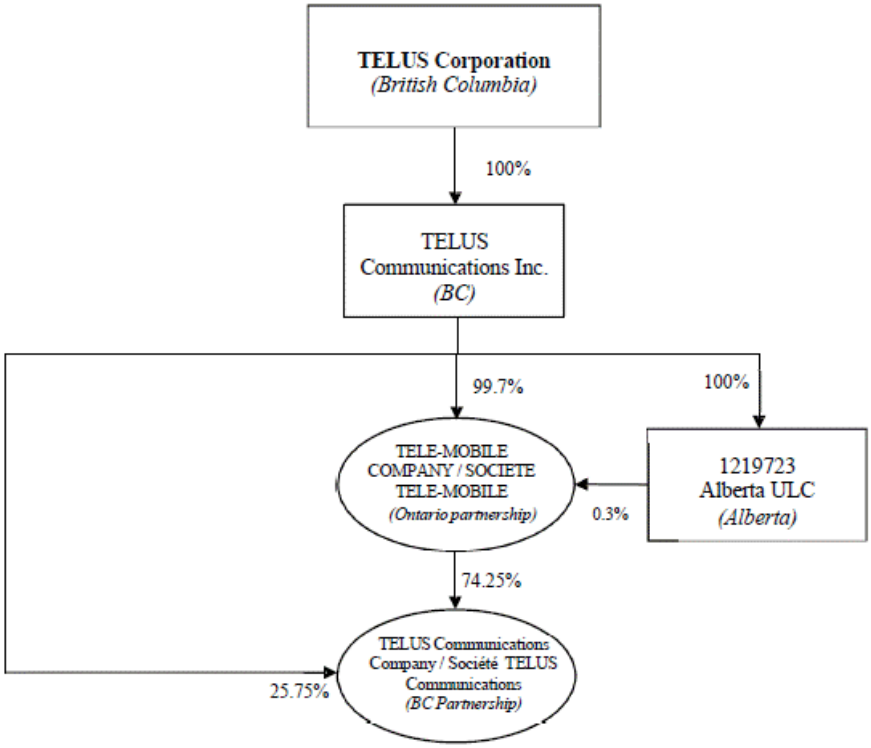
TELUS' wireless and wireline businesses are primarily operated through TELUS Communications Company (TCC). TCC is a partnership organized under the laws of B.C. whose partners are TELUS Communications Inc. (TCI) and TELE-MOBILE Company (TELE-MOBILE).

TCI, which holds direct and indirect interests in TCC and TELE-MOBILE, is the only subsidiary which owned assets that constitute more than 10% of the consolidated assets of TELUS and that generated sales and operating revenues that exceed 10% of the consolidated sales and operating revenues of TELUS for the year ended December 31, 2016. In addition, all of the assets, sales and operating revenues of TELUS' other subsidiaries (other than TCI), together do not exceed 20% of TELUS' total consolidated assets and 20% of TELUS' total consolidated sales and operating revenues as at December 31, 2016.

The following organization chart sets forth the relationships between the major subsidiaries and partnerships, as well as their respective jurisdictions of incorporation or establishment and TELUS ownership as at December 31, 2016.



Subsequent to year-end, TCI amalgamated with TELUS Communications (Quebec) Inc., Emergis Health Solutions Inc. and certain other wholly-owned subsidiaries to form a newly amalgamated TCI on January 1, 2017. The following organization chart reflects this amalgamation and the resulting ownership changes:



4. GENERAL DEVELOPMENT OF THE BUSINESS

4.1 Three-year history

During the three-year period ended on December 31, 2016, we continued to advance our national growth strategy, guided by our six strategic imperatives and our corporate priorities.

Focusing relentlessly on growth markets of data, IP and wireless

External wireless revenues and wireline data revenues were $11.2 billion in 2016, up by $469 million or 4.4% from 2015. The results for 2015 had increased by $646 million or 6.4% from 2014. In total, 2016 external wireless revenues and wireline data revenues have grown by 11.1% since 2014. Wireless and wireline data revenues combined represented 87% of TELUS' consolidated revenues in 2016, up from 86% in 2015, and 84% in 2014.

The trend in wireless network revenue reflects growth in both our ARPU and subscriber base. This growth was partially offset by the decline in wireless equipment revenue, reflecting higher per-unit subsidies and lower retention volumes. Data network revenue increased in 2016 reflecting a number of factors including a larger proportion of higher-rate plans in the revenue mix, including the new Premium Plus plans launched in June 2016; a larger proportion of customers selecting plans with larger data buckets or periodically topping up their data buckets; growth in the subscriber base; a higher postpaid subscriber mix; and increasing data usage from data-intensive devices. Voice network revenue decreased due to the increased adoption of unlimited nationwide voice plans and continued but moderating substitution to data services. For further detail on our wireless growth trends, see *Section 5.4 Wireless segment* of our 2016 annual MD&A.

The trend of increasing wireline data service revenue reflects growth in business process outsourcing services, high-speed Internet and enhanced data services, TELUS TV revenues and TELUS Health revenues, and is partly offset by declining data equipment revenues. The increases in Internet and TV service revenues are being generated by higher revenue per customer and subscriber growth. The trend of declining wireline voice revenues is due to technological substitution, greater use of inclusive long distance and lower wholesale volumes competition from voice over IP (VoIP) service providers (including cable-TV competitors), resellers and facilities-based competitors, as well as technological substitution to wireless and IP-based services and applications, continuing increased competition in the small and medium-sized business market, and the impact of the economic slowdown. For further detail on our wireline growth trends, see *Section 5.5 Wireline segment* of our *2016 annual MD&A.*

Providing integrated solutions that differentiate TELUS from our competitors

In 2014, we introduced Your Choice® rate plans based on our customers' feedback and added new options to provide enhanced flexibility for voice and data usage. Your Choice rate plans allows the customer to create a custom mobile phone plan tailored by the customer.

In late 2014, we introduced two new solutions aimed at leveraging cloud-based technology to enable Canadian businesses to deploy a range of unified communication and collaboration tools and help their employees work more efficiently and effectively, no matter where they are. Our Cloud Collaboration services include voice mail, integrated messaging, and voice and video-conferencing. Our Cloud Contact Centre, a contact centre for customer service calls for marketers, salespeople and customer service representatives, is an end-to-end enterprise-grade solution that can support up to several thousand agents and allows those agents to connect from the office, home or almost any remote location. In mid 2016, we announced the expansion of our cloud portfolio with the offer of a full suite of managed infrastructure as a service (IaaS) solutions that include public, private and hybrid cloud options. This expansion of our cloud portfolio, paired with our Internet data centres (IDCs) and expertise in managed services, allows us to meet the growing Hybrid IT demands of Canadian businesses that are being driven by mobile, social, Internet of Things (IoT) and big data applications, as well as their growing IT security and privacy concerns.

In 2014, we launched the TELUS IoT Marketplace, an online space offering a suite of turnkey IoT solutions for Canadian businesses. IoT refers to technologies designed to make it simpler for businesses to incorporate Internet-connected devices and deploy solutions that can help reduce costs and enhance efficiency, productivity and profitability. IoT also comprises machine-to-machine communications as it usually involves one device connected with another, which is controlled through the Internet. Examples of IoT devices include connected cars and connected utility and security services. In 2015, we expanded our offerings to include 53 more solutions and 23 new partners. For example, we partnered with Jasper Technologies Inc. to implement the TELUS Control Centre, a self-service platform aimed at simplifying the deployment and management of IoT services by offering automated device provisioning, real-time diagnostics, integrated billing and cost-management features. Furthermore, in September 2015, we introduced the TELUS Global IoT Connectivity Platform, which enables businesses to scale their IoT operations globally. Through a network of more than 70 carriers, we can offer a global SIM card that delivers connectivity in nearly every country around the world. With respect to applications, we established a presence within the transportation sector with our Fleet Complete and GEOTrac Fleet solutions, which offer businesses productivity gains and cost efficiency.

In 2015, we further extended our leadership in our clear and simple approach, providing customers with improved visibility to their data usage, both with Your Choice and Share Plus plans. These plans allowed customers to access real-time rating information, receive notifications when they were at or approaching billing thresholds and control usage through our data manager (accessible through our website or app in order to improve billing transparency), and allowed customers to add data top-ups when desired to have a set rate for additional usage.

In 2015, we launched improved roaming plans for U.S. travel, both for businesses and consumers. Our consumer product, called Easy Roam®, allows our subscribers to access their domestic plan while roaming for a flat fee per 24 hours. For businesses, we have introduced Roam Ready U.S. ®, a feature that offers competitive, flat-fee rates for voice, text and data; only when the service is used. These changes improve billing transparency and respond to our customers' desire to use their devices anywhere, any time.

In 2015, we stopped charging the incoming short messaging service (SMS) fee for our wireless customers roaming outside Canada. Our customers can now receive unlimited incoming text messages free of charge while travelling abroad.

In early 2015, we redesigned our TV packaging to provide our customers with more choice and flexibility, allowing them to select from a wide variety of theme packs or customize their own, at competitive pricing. On March 1, 2016, we launched new Lite basic TV plans on both our Optik and satellite-TV services, offering another choice to customers looking for basic channel services at lower prices. These new plans, as well as our existing offers of small theme packs, align with the intent of the Canadian Radio-television and Telecommunications Commission (CRTC) to provide greater customer choice and provide more freedom for Canadian viewers to subscribe to the channels they want to watch.

In March 2015, we launched TELUS Business Connect®, an integrated business communications solution for small businesses across Canada. This cloud-based solution provides businesses with a full suite of communications tools for both office and mobile use, including an automated attendant, call routing, teleconferencing, video-conferencing, toll-free numbers and a wireless backup for office Internet access. Business Connect allows users to use a single number across their mobile phone, tablet, desk phone and computers through voice over IP (VoIP) technology.

In June 2015, we announced a free public Wi-Fi service available to both TELUS and non-TELUS customers at more than 8,000 hotspots across B.C. and Alberta. Since early 2014, we have been actively expanding our public Wi-Fi network by working with thousands of businesses and many major sports and entertainment venues. This public Wi-Fi service is part of our network strategy of deploying small cells that integrate seamlessly with our 4G wireless network, automatically shifting our smartphone customers to Wi-Fi and offloading data traffic from our wireless spectrum to increasingly available Wi-Fi hotspots.

In October 2016, we began offering high-speed internet access over wireless LTE to customers in select rural areas in our Western wireline markets, a significant speed and experience upgrade from dial-up internet.

We launched Optik TV® 4K in mid-2016 and were the first carrier in Western Canada to offer 4K programming to customers with an Optik TV 4K set-top box. Those customers who also have a Netflix Premium subscription can stream Netflix 4K content directly through their 4K set-top box.

In June 2016, we launched Premium Plus wireless plans — allowing customers to get more affordable high-end devices, which results in a greater subsidy but higher ARPU over time and further extended Easy Roam to over 100 international destinations.

In 2016, we made a significant investment in our corporate stores, transforming over 100 to a new “digital life” format, featuring connected accessories and devices, and opening five “Connected Experience” flagship-style stores. These stores showcase TELUS’ innovative products and services and strategically align to evolving retail needs and user experiences.

Growth continued for TELUS International in 2016, TELUS’ global business process outsourcing (BPO) company. TELUS International now has more than 25,000 employees around the world, including in Canada, the United States, Europe, Central America and the Philippines and handles over 175 million BPO transactions annually via voice, email, chat, social media and back-office support across the telecommunications, utilities, high tech, gaming, finance, retail, e-commerce, travel and logistics and healthcare industries.

Building national capabilities across data, IP, voice and wireless

In 2014, we acquired 30 wireless spectrum licences in Innovation, Science and Economic Development Canada’s 700 MHz spectrum auction for $1.14 billion and commenced its deployment across our network. Spectrum in the 700 MHz range has superior propagation capabilities that make it effective and efficient in covering Canada’s expansive rural geography, as well as improving the quality of in-building coverage in urban areas.

In 2015, we acquired 21 AWS-3 wireless spectrum licences in the AWS-3 spectrum auction and the residual spectrum licences auction for $1.5 billion, as well as 122 wireless spectrum licences in the 2500 MHz spectrum auction for $479 million. The AWS-3 spectrum is well suited for delivering both coverage and added capacity in urban and rural environments. The 2500 MHz spectrum is ideal for carrying large amounts of data, making it especially valuable in urban centres, and complement TELUS’ existing low band spectrum, which is able to penetrate farther into buildings and elevators and also travels farther in rural areas. The general deployment of the 2500 MHz spectrum licences into our network commenced in late 2015. We plan to utilize other spectrum licences purchased in recent years in combination with unlicensed supplementary spectrum, as network and device ecosystems evolve.

In June 2015, we announced a $1 billion investment in the city of Edmonton to connect more than 90% of homes and businesses directly to our fibre-optic network over the next six years. In October 2015, we announced a $1 billion investment in the city of Vancouver to connect the majority of homes and businesses directly to our fibre-optic network over the next five years. As the networks are launched, local residents and businesses will have access to much faster Internet speeds. These investments are part of our broader fibre-optic strategy to bring our fiber network to communities across B.C., Alberta and Eastern Quebec.

In May 2016, we concluded a spectrum licence assignment and rationalization agreement with Xplornet Communications Inc., a Canadian-based broadband Internet provider. Under this agreement, we transferred 3500 MHz fixed wireless access spectrum licences in certain of our secondary and tertiary regions, as well as monetary consideration, in exchange for Xplornet’s 2300 MHz spectrum licences in similar regions. This spectrum licence exchange will allow for more robust mobile and fixed wireless broadband access for Canadians, as each party in the transaction can more effectively utilize these licences within its respective network. The 2300 MHz spectrum has a robust ecosystem of network infrastructure and devices, and complements our existing 2300 MHz spectrum holdings in Montreal, Quebec City and key markets in Western Canada, giving us use of the spectrum in this band in nearly every market.

Consistent with our network optimization strategy, we exchanged certain wireless telecommunication tower sites in 2016 with Bell Mobility.

The exchange entailed the re-assignment of existing lease agreements for each tower site, as well as the transfer of all ownership of any leasehold construction on the leased premises, including tower structures, antennae and cabling. The exchange benefits both parties, as the tower sites are well positioned for utilization within each party's respective 4G long-term evolution (LTE) network footprint.

At the end of 2016, our 4G LTE network covered 97% of Canada's population, up from more than 96% at the end of 2015 and 89% at the end of 2014. Outside of LTE coverage areas, the LTE devices we offer also operate on our HSPA+ network, which covered 99% of the population at December 31, 2016. Our high-speed broadband coverage reached more than 2.9 million households and businesses in B.C., Alberta and Eastern Quebec at December 31, 2016, including approximately 1.08 million homes and businesses covered by fibre-optic cable, up from 0.69 million homes and business in 2015, which now provides those premises with immediate access to our gigabit-capable fibre-optic network.

Under an agreement with the Government of B.C., since 2011, we have been providing telecommunications and strategic services to the government and its public sector partners. By December 2016, we have extended wireless coverage along 1,720 km of primary and secondary highways in B.C. Additionally, we have upgraded service at 1,415 of 1,417 B.C. public schools from legacy networks to the province's next generation network.

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

On April 1, 2014, we acquired the business assets of Groupe Enode Inc., a Quebec-based security IT firm that specializes in providing businesses and government agencies with technologies and services for security and risk management. In January 2015, we announced an acquisition of a 20% stake in Alithya, a Quebec-based information technology and consulting services provider, with offices in Canada and France. This strategic investment complements TELUS' focus on information and communication technology and managed infrastructure solutions with a suite of professional services capabilities that combined can offer our clients an end to end digital transformation experience.

In June 2015, we announced the closure of the remaining 59 Black's Photography retail stores across Canada by August 2015. Technological innovations have changed the way Canadians take and share photographs, with fewer of them using retail photo outlets. As a result, we determined that Black's was not core to our future operations. We sold the Black's trademark and online and mobile businesses to Les Pros de la Photo (Les Pros), a Quebec-based photo imaging company, effective August 4, 2015. As a result, Les Pros will carry forward the Black's brand.

In July 2015, we announced that the TELUS Garden real estate joint venture, in which TELUS is a 50% partner and Westbank Projects Corp. is the other partner, had issued $225 million of 3.4% green bonds, secured by the office tower, due in 2025. This is the first time in North America that green mortgage bonds have been used to support real estate financing. Proceeds of the issuance were primarily used to retire short-term construction financing for the office tower.

In September 2015, we announced the opening of the TELUS Garden™ office tower in Vancouver. The office tower houses our new global headquarters, as well as other tenants. The TELUS Garden development in the heart of downtown Vancouver includes a 24-storey office tower, as well as a 53-storey residential condominium tower built to LEED gold standards. In March 2016, the Canada Green Building Council awarded leadership in energy and environmental design (LEED) platinum certification to our office tower. This is the highest LEED rating a building can receive, demonstrating our commitment to technological innovation and environmental stewardship. In partnership with Westbank Projects Corp., the one-million-square-foot TELUS Garden development includes 450,000 square feet of office space, 65,000 square feet of retail space, and a 53-storey residential tower that was officially opened in June 2016.

TELUS continues to lead the industry with our small cell driven network strategy, seamlessly integrating small cells with the rest of our 4G wireless network, thus offloading traffic from our macro network and preserving capacity in high traffic areas or extending coverage at lower cost

Progress continued in 2016 on the TELUS Sky™ residential, retail and commercial real estate redevelopment project in Calgary, Alberta. The project will be constructed to LEED platinum standards and, when completed, will be one of the most technologically innovative and environmentally friendly buildings in North America. Construction is expected to be completed in 2018. In response to the economic conditions in Calgary, the TELUS Sky partnership has taken a number of steps to better position the development for success, including: moving to a single-phase occupancy to delay the start dates of any potential office leases from the first quarter of 2018 to the fourth quarter of 2018; revising revenue projections and adjusting tenant inducements to align with current market expectations; and evaluating various approaches to adjusting the mix between office and residential, as well as creating a wider range of residential offerings to address current market demand. See *Section 7.11 Transactions between related parties — Transactions with real estate joint ventures* in the 2016 annual MD&A for additional information.

In February 2016, we partnered with Microsoft and Avanade, a leading global provider of innovative digital business and technology services in the Microsoft ecosystem, to offer Skype for Business. Powered by TELUS, Skype for Business offers a full suite of enterprise-grade communication and collaboration tools that includes voice and video calls, instant messaging and online meetings. This service is delivered as a fully managed private cloud solution over our network of intelligent Internet data centres located across Canada, and is available through a single interface on almost all devices.

In May 2016, the Company announced an agreement with BCE Inc. ("BCE"), pursuant to which it would acquire a portion of Manitoba Telecom Services Inc.'s ("MTS") postpaid wireless subscribers and dealer locations in Manitoba, dependent on the successful completion of BCE's acquisition of MTS, and subject to regulatory approvals. On February 15, 2017, BCE announced that it had received approval from the Competition Bureau and ISED and that it expected to complete its transaction with MTS on March 17, 2017. BCE has agreed to divest approximately one-quarter of MTS' postpaid wireless subscribers (equivalent to approximately one per cent of TELUS' 8.6 million total wireless subscribers) and 13 MTS retail locations to TELUS (through one or more of its subsidiaries) for total proceeds of approximately $300 million,

subject to final adjustments. Although the transaction with TELUS is expected to close on or about April 1, 2017, customers will be actively migrated to TELUS over several months in a customer-friendly manner.

In June 2016, we announced the completion of an agreement with Baring Private Equity Asia (Baring Asia), under which it has acquired a 35% non-controlling interest in TELUS International (Cda) Inc. (TELUS International), a global provider of customer service, information technology (IT) and business process outsourcing services. See *Section 1.3 Highlights of 2016* in the 2016 annual MD&A for additional information.

During the past three years, we continued to advance our position in healthcare information management with the following acquisitions:

- In March 2014, we acquired Med Access Inc., a company based in Kelowna, B.C. providing EMR services to 2,000 specialty and general practice physicians in B.C., Alberta, Saskatchewan, Manitoba and Ontario.
- In September 2014, we acquired ZRx Prescriber from ZoomMed Inc., a web-based technology that allows physicians to write and deliver prescriptions while accessing a patient's insurance coverage information at the moment of prescription. With this technology, TELUS Health has become the first Canadian healthcare technology provider to offer online insurance coverage validation at the moment of prescribing to accelerate the reimbursement of insurance claims.
- In December 2014, we acquired XD[3] Solutions, a pharmacy management solution provider, which serves Quebec-based pharmacies. The company's software product is intended to enhance collaboration between pharmacists, physicians, other healthcare professionals and insurers to deliver a better patient care experience.
- In March 2015, we completed our acquisition of Medesync, a company whose certified EMR product will bring a bilingual web-based interface to our EMR portfolio in Quebec. Medesync uses cloud-based and mobile technologies to provide physicians with access to EMR from any computer or mobile device.
- Throughout 2015, we furthered our commitment to community engagement in Montreal by expanding the reach of a mobile health clinic powered by TELUS Health and Doctors of the World. Since its launch in June 2014, the clinic servicing Montreal's homeless population has enabled more than 3,000 medical acts such as vaccinations, screening tests and general health examinations; and has reintegrated more than 800 individuals of Montreal's disadvantaged community back into the public health system.
- In September 2016, TELUS acquired the Canadian business operations of Nightingale Informatix Corp., including its customer base and proprietary EMR software.
- In December 2016, TELUS acquired the business operations of Osler Systems Management, including its customer base and proprietary EMR software.

Going to market as one team under a common brand, executing a single strategy

Our team works together to implement our top corporate priority: putting customers first, as we strive to consistently deliver exceptional client experiences and become the most recommended company in the markets we serve. The Commissioner for Complaints for Telecommunications Services (CCTS) annual reports have showed the successful results of this strategy.

In the CCTS report for the 12-month period ended July 31, 2014, TELUS was the subject of 5.8% of the total complaints submitted to the CCTS for all providers, an amount that was lower than complaints reported for other national carriers, according to the CCTS' 2014 annual report. Additionally, complaints related to TELUS decreased by 26% in 2014, despite growth in our wireless and wireline subscriber base.

In the December 2015 CCTS report for the 12-month period ended July 31, 2015, TELUS had the lowest number of complaints among national wireless carriers at 4.7% of total complaints submitted to the CCTS. Complaints related to Koodo Mobile® increased by 1.7% from 2014, while Public Mobile achieved a 57% reduction in complaints compared to 2014. With only 1.8% and 0.6% of the total complaints, respectively, Koodo Mobile and Public Mobile continued to lead their peer group of national carrier flanker brands with the lowest number of complaints submitted to the CCTS in 2015.

In the November 2016 CCTS report for the 12-month period ended July 31, 2016, TELUS once again received the fewest customer complaints among all national carriers. TELUS, Koodo® and Public Mobile were the subjects of 7.0%, 2.5% and 0.6% of the total customer complaints submitted to the CCTS, respectively, or 10.1% of total customer complaints in the aggregate. In addition, we recorded the lowest postpaid churn among our peers of 0.95% in 2016.

Investing in internal capabilities to build a high-performance culture and efficient operation

On August 10, 2015, we announced leadership changes following an extensive review by our Board of Directors (Board), which included the resignation of Joe Natale as President and Chief Executive Officer (CEO) and as a member of the Board, with Darren Entwistle resuming the role of President and CEO and Dick Auchinleck being named independent Chair of the Board. Darren and Dick have both agreed to serve in these capacities on a long-term basis.

We incur incremental, non-recurring restructuring and other costs with the objectives of improving our operating efficiency and effectiveness and addressing the ongoing decline in profitability in certain areas of our business. In 2015, our restructuring and other costs totalled $226 million, increasing from $75 million in 2014, mainly reflecting our initiative to reduce approximately 1,500 net full-time positions over several quarters beginning in the fourth quarter of 2015, as well as the closure of Black's Photography retail stores and real estate rationalization. In 2016, we incurred $479 million of restructuring and other costs which includes the $305 million immediately vesting transformative compensation described below.

In 2015, we commenced collective bargaining with the Telecommunications Workers Union (TWU), United Steel Workers Local Union 1944, to renew the collective agreement that expired on December 31, 2015. On October 3, 2016, TELUS and the TWU announced that they had

reached a tentative five-year collective agreement which would be subject to ratification by members of the TWU. The ratification process was completed in November 2016, with a majority of TWU

members who cast their ballots voting to accept the tentative agreement. The new collective agreement with the TWU is in place through to December 31, 2021, and covers approximately 37% of our Canadian workforce as at December 31, 2016.

In December 2016, a new collective agreement between TELUS and the Syndicat des agents de maîtrise de TELUS (SAMT) was ratified by a majority of the SAMT members. This collective agreement will take effect on April 1, 2017, and will expire on March 31, 2022. A new collective agreement between TELUS and the Syndicat québécois des employés de TELUS (SQET) was also ratified in December 2016. The new agreement will be effective from January 1, 2018, to December 31, 2022. The current SQET collective agreement will remain in effect until it expires on December 31, 2017.

In the fourth quarter of 2016, we recorded an expense of $305 million in respect of immediately vesting transformative compensation paid to substantially all of our existing unionized and non-unionized Canadian-situated workforces; a portion of the after-tax value for certain lump-sum recipients was paid in Common Shares purchased in the market for that purpose under our normal course issuer bid (NCIB) by an employee benefit plan trust. The one-time payment to unionized employees in the fourth quarter of 2016 represents both a one-time payment in lieu of wage increases for the period July 1, 2016, to December 31, 2018 (a period of 30 months) and a one-time payment as compensation for reductions in certain premium payments and paid time-off provisions that underpin future productivity improvements. A similar approach with respect to salary increases was adopted for management employees. For most of our current Canadian-situated management employees, there was a one-time payment in the fourth quarter of 2016 in lieu of general salary increases for 2017 and 2018. For the unionized and non-unionized workforces, approximately 40% of the after-tax value of such qualifying lump-sum payments was paid in our Common Shares.

Annually, we conduct team member Pulsecheck engagement surveys, administered by Aon Hewitt, to gather confidential team member feedback about TELUS as a place to work and measure our progress in establishing a high performance culture. Following each survey, business units and departments use their Pulsecheck results to create and review their current action plans and prioritize their ongoing actions. In 2015, our employee engagement score remained in the top quartile of all employers surveyed, elevating our high-performance culture and realizing world-leading engagement results for the third year in a row. Significant improvements in employee engagement have helped us focus on putting customers first. In 2016, our employee engagement levels continue to place our organization within the top quartile.

For additional details on 2016 developments and other events or conditions that influenced our general development, see *Section 2.2 Strategic imperatives*, as well as progress on our corporate priorities in *Section 3 Corporate priorities* in the 2016 annual MD&A . For a discussion of changes in our business expected in 2017, see *Section 9 General trends, outlook and assumptions* in the 2016 annual MD&A.

For a review of the events and conditions that influenced our general development during 2014 and 2015, and how our business developed over those two years, see each of the 2014 and 2015 annual Management's Discussion and Analysis, *Section 1.2 The environment in which we operate*, *Section 2.2 Strategic imperatives*, as well as progress on our corporate priorities for the relevant year in *Section 3 Progress on 2014 corporate priorities (2014)* and *Section 3 Progress on 2015 corporate priorities (2015)* .

5. DESCRIPTION OF BUSINESS

5.1 Who we are

TELUS is one of Canada's largest telecommunications companies, providing a wide range of telecommunications services and products, including wireless and wireline voice and data. Data services include: internet protocol (IP); television; hosting, managed information technology, security and cloud-based services; healthcare solutions; and business process outsourcing. In 2016, we generated $12.8 billion in revenue and had 12.7 million subscriber connections. This included 8.6 million wireless subscribers, 1.7 million Internet subscribers, 1.4 million wireline residential network access lines, and 1.1 million TV subscribers.

(a) Organization

Our wireless and wireline businesses are organized to leverage the convergence of technologies, to provide integrated solutions differentiating us from our competitors and to improve operating efficiency and effectiveness. The operating segments that are regularly reported to our Chief Executive Officer (our chief operating decision-maker) are wireless and wireline. Operating segments are components of an entity that engage in business activities from which they earn revenues and incur expenses (including revenues and expenses related to transactions with the other component(s)), the operating results of which are regularly reviewed by a chief operating decision-maker to make resource allocation decisions and to assess performance. As we do not currently aggregate operating segments, our reportable segments are also wireless and wireline. Segmentation is based on similarities in technology, the technical expertise required to deliver the services and products, customer characteristics, the distribution channels used and regulatory treatment. We offer our wireless and wireline services primarily through TCC.

A significant judgment we make is in respect of distinguishing between our wireless and wireline operations and cash flows, such distinction having been significantly affected by the convergence and integration of our wireless and wireline telecommunications infrastructure technology and operations.

Through December 31, 2015, our judgment was that our wireless and wireline telecommunications infrastructure technology and operations had not experienced sufficient convergence to objectively make their respective operations and cash flows practically indistinguishable. The continued build-out of our technology-agnostic fibre-optic infrastructure, in combination with converged edge network technology, has significantly affected this judgment, as has the commercialization of fixed-wireless solutions.

It has become increasingly impractical to objectively distinguish between our wireless and wireline operations and cash flows, and the assets from which those cash flows arise. Our judgment as to whether these operations can continue to be judged to be individual components of the business and discrete operating segments may change in the future.

The increasing impracticality of objectively distinguishing between our wireless and wireline cash flows, and the assets from which those cash flows arise, is evidence of their increasing interdependence; this may result in the unification of the wireless cash-generating unit and the wireline cash-generating unit as a single cash-generating unit for impairment testing purposes in the future.

(b) Our strategy

Our strategic intent is to unleash the power of the Internet to deliver the best solutions to Canadians at home, in the workplace and on the move. Our focus is on our core telecommunications business in Canada supported by our international contact centres and outsourcing capabilities.

We developed six strategic imperatives in 2000 that remain relevant for future growth, despite changing regulatory, technological and competitive environments. The six strategic imperatives are:

- Focusing relentlessly on growth markets of data, IP and wireless;
- Providing integrated solutions that differentiate TELUS from our competitors;
- Building national capabilities across data, IP, voice and wireless;
- Partnering, acquiring and divesting to accelerate the implementation of TELUS' strategy and focus TELUS' resources on core business;
- Going to market as one team under a common brand, executing a single strategy; and
- Investing in internal capabilities to build a high-performance culture and efficient operation.

A consistent focus on the strategic imperatives guides our actions and contributes to the achievement of our financial goals. See our discussion in *Section 2.2 Strategic imperatives* in the 2016 annual MD&A. To advance our long-term strategic initiatives and address near-term opportunities and challenges, we set new corporate priorities each year. See *Section 3 Corporate priorities* in the 2016 annual MD&A for progress on our 2016 corporate priorities, as well as our 2017 corporate priorities.

(c) Business overview

Our principal markets, services and products and competition overview are described in *Section 4.1 Principal markets addressed and competition* in the 2016 annual MD&A. Further details related to competition can be found in *Section 10.2 Competition* in the 2016 annual MD&A.

Our assets and resources, including employees, brand and distribution methods, tangible properties (such as our telecommunications networks and network facilities), intangible properties (such as brand and wireless spectrum licences) and an overview of foreign operations are discussed in *Section 4.2 Operational resources* in the 2016 annual MD&A. Further details on our employees are provided below under *Employee relations* and further details on our wireless spectrum licences are provided below under *Regulation - Radiocommunications authorizations and spectrum licences*.

Intellectual property, which we own or which we have been granted the right to use, is an essential asset for TELUS. Intellectual property enables us to be known and recognized in the marketplace through our brand style, trade dress, domain names and trademarks. It protects our know-how and software, systems, processes and method of doing business through copyrights, patents and information treated as confidential. It also helps us to increase our competitiveness by fostering an innovative work environment. Each form of intellectual property is important to our success. For instance, the TELUS brand plays a key role in product positioning and our Company's reputation. TELUS aims to maximize the value of TELUS' intangible assets in the areas of innovation and invention by ensuring that they are adequately used, protected and valued. To protect our intellectual property assets, we rely on a combination of legal protections afforded under copyright, trade-mark, patent and other intellectual property laws as well as contractual provisions under licensing arrangements. Further information on recognized tangible and intangible properties can be found in *Section 8.1 Critical accounting estimates* in the 2016 annual MD&A.

We depend on various key third-party suppliers and vendors to provide us with equipment and services, such as network equipment and handsets that we need in order to operate our business and provide products and services to our customers. If these suppliers or vendors fail to provide equipment or service on a timely basis or fail to meet our performance expectations, we may be unable to provide our products and services as and when requested by customers. We also may be unable to continue to maintain or upgrade our networks. Our dependence on suppliers and vendors is described in *Section 10.3 Technology - Supplier risks* in the 2016 annual MD&A. Reciprocal network access agreements, principally with Bell Canada, have facilitated our deployment of wireless technologies and provided the

means for us to better manage our capital expenditures. These agreements are expected to provide ongoing cost savings beyond the initial network build, as well as the flexibility to invest in service differentiation and support systems.

For revenue and other financial information on the two most recently completed financial years with respect to our wireless and wireline businesses, see *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment* in the 2016 annual MD&A.

An overview of the Canadian economic environment and the telecommunications industry can be found in *Section 1.2 The environment in which we operate* and *Section 9 General trends, outlook and assumptions* in the 2016 annual MD&A. Seasonal trends that have impacted us are described in *Section 5.2 Summary of consolidated quarterly results, trends and fourth quarter recap* and in *Section 5.4 Wireless segment* in the 2016 annual MD&A.

(d) Competition

In 2016, the wireless industry continued to adjust to the highly competitive and capital intensive landscape in Canada. Small independent new entrants continued to be consolidated with cable-TV provider Shaw Communications Inc. acquiring Wind Mobile Corp. in March 2016 for $1.6 billion. Wind Mobile was subsequently rebranded as Freedom Mobile in November 2016. Videotron continues to operate as a wireless provider in Quebec, and Eastlink continues to operate as a wireless provider in Atlantic Canada. These cable-TV based wireless providers, in addition to carriers present in Manitoba and Saskatchewan, represent a fourth carrier in all major markets. In January 2016, Shaw Communications Inc. also sold its wholly owned broadcasting subsidiary, Shaw Media Inc., to Corus Entertainment for $2.65 billion.

In May 2016, the Company announced an agreement with BCE Inc. ("BCE"), pursuant to which it would acquire a portion of Manitoba Telecom Services Inc.'s ("MTS") postpaid wireless subscribers and dealer locations in Manitoba, dependent on the successful completion of BCE's acquisition of MTS, and subject to regulatory approvals. On February 15, 2017, BCE announced that it had received approval from the Competition Bureau and ISED and that it expected to complete its transaction with MTS on March 17, 2017. BCE has agreed to divest approximately one-quarter of MTS' postpaid wireless subscribers (equivalent to approximately one per cent of TELUS' 8.6 million total wireless subscribers) and 13 MTS retail locations to TELUS (through one or more of its subsidiaries) for total proceeds of approximately $300 million, subject to final adjustments. Although the transaction with TELUS is expected to close on or about April 1, 2017, customers will be actively migrated to TELUS over several months in a customer-friendly manner. On February 15, 2017, BCE also announced that BCE and MTS had agreed to transfer to Xplornet Communications Inc. ("Xplornet") a total of 40 MHz of 700 MHz, AWS-1 and 2500 MHz wireless spectrum currently held by MTS, 24,700 wireless customers and 6 dealer locations, and that Xplornet will receive transitional remedy network access from Bell MTS in urban areas of Manitoba for three years and other operational benefits as Xplornet builds out its own wireless network in Manitoba.

Competition in the wireline sector remained strong with cable-TV providers offering High Speed Internet Access (HSIA) services between 150 Mbps and 1 Gbps to compete with telecom service providers. At the same time telecom service providers such as TELUS Communications and Bell Canada Enterprises Inc. continued to expand their fibre-to-the-home networks allowing them to offer higher speed symmetrical HSIA services and support high resolution services such as 4K TV. In early 2017, Shaw Communications Inc. rolled out BlueSky TV, their next generation TV service, licensing an existing platform developed by Comcast, a U.S.-based cable company. Competitors of TELUS International include other business process outsourcers such as Convergys, Sitel, Genpact and Sutherland.

Competitors for TELUS Health include providers of EMR and pharmacy management products, such as Omnimed, Familiprix, Kroll, Fillware and ARI. Competitors also include systems integrators, health service providers, such as Loblaws and McKesson that have also become vertically integrated and own a mix of health services delivery, IT solutions and related services, and potentially, global providers such as ATEB that could achieve expanded Canadian footprints.

We expect continued strong competition in the wireline and wireless businesses in all principal markets and geographic areas.

See *Section 4.1 Principal markets addressed and competition* in the 2016 annual MD&A for a summary of the competitive environment in each of our principal markets and geographic areas. Also refer to *Section 10.2 Competition* for further details on the risks associated with our competitive environment and *Section 9 General trends, outlook and assumptions* in the 2016 annual MD&A for an assessment of our competitive position as it relates to the telecommunications industry generally, and specifically as it relates to the wireless and wireline industries.

(e) Corporate social responsibility and environment

We are committed to following sustainable and responsible business practices and to making decisions that balance economic growth with social and environmental benefits. More information about corporate social responsibility at TELUS can be found in our Sustainability Report at **sustainability.telus.com.**

TELUS has a strong foundation of sustainability governance which supports our commitment to environmental stewardship and responsible corporate citizenship. We advance this responsibility through our balanced approach to business, focusing on the social, economic and environmental impact of the technology solutions we provide to Canadians. TELUS values are reflected in our Environmental Policy and our commitment to:

- comply with applicable environmental legal requirements and meet voluntary requirements that are endorsed by our senior leaders;

- strive to prevent pollution using standards, procedures or other controls and by minimizing energy consumption and greenhouse gas emissions, waste generation, and spills and releases;
- continually improve our environmental performance through establishing environmental and sustainability objectives, targets, and programs, reviewing and updating our ISO 14001:2004 certified Environmental Management System, and disclosing our performance in our Sustainability Report.
- build an environmentally future friendly culture through education and communications.

Our environmental objectives, targets and performance are monitored and reported yearly through our Sustainability Report. Compliance with applicable environmental legislation and regulations does not and is not expected to have, a material effect upon our capital expenditures, net income or competitive position. However, environmental legislation and regulation and its interpretation is constantly evolving, which we expect will continue in the future. The Company monitors changes closely and modifies its practices where necessary and appropriate. A detailed report of our environmental risk mitigation activities can be found in our Sustainability Report and concerns related to the environment can be found in *Section 10.10 Health, safety and environment* in the 2016 annual MD&A .

The Company's properties and neighbouring sites, particularly those in areas of long-term industrial use, may have had historic uses, or may have current uses, in the case of neighbouring sites, which may affect our properties and require further study or remedial measures. The Company allocates budget on a yearly basis to monitor and manage properties with known environmental impacts and utilizes a risk matrix based on the Canadian Council of Ministers of the Environment methodology to prioritize funding. The Company cannot provide assurance that all environmental liabilities have been identified or that all remedial measures will be effective.

Our commitment to our communities is evidenced by our desire to give where we live, to help our fellow citizens in need to build stronger communities and create a stronger bond with our customers. We accomplish this through a range of initiatives, such as the TELUS Days of Giving®, TELUS Match, TELUS Volunteer Awards and grants to local not-for-profit organizations through local community boards, both domestically and internationally. Details about our community investment program can be found at **community.telus.com.**

(f) Employee relations

As at December 31, 2016, we employed approximately 51,250 employees, including approximately 25,500 employees in TELUS International who are located outside of Canada. Approximately 11,000 of our employees in Canada are represented by a trade union and covered by a collective agreement.

We are signatories to five collective agreements. The largest agreement is with the Telecommunications Workers Union (TWU), United Steelworkers Union Local 1944 covering approximately 9,500 clerical, operator services and technical employees in the wireless and wireline segments across Canada. In November of 2016, TELUS and the TWU, USW agreed to a new collective agreement that is effective from November 27, 2016, to December 31, 2021. In the province of Quebec, in addition to employees covered by the TWU agreement, there are approximately 1,400 employees in the wireline segment covered by two separate collective agreements. The agreement with the Syndicat Québécois des employés de TELUS (SQET) which covers approximately 800 trades, clerical and operator services employees expires on December 31, 2017. Of note, TELUS and the SQET entered into collective bargaining in late 2016 and signed a new collective agreement that comes into effect on January 1, 2018, and expires on December 31, 2022. The second wireline agreement in Quebec is with the Syndicat des agents de maîtres de TELUS (SAMT) which covers approximately 600 professional and supervisory employees, and expires on March 31, 2017. The SAMT also agreed to enter into early negotiations with TELUS and the parties agreed to a collective agreement that comes into effect on April 1, 2017 and expires on March 31, 2021. The SAMT also represents a small number of employees in the wireless segment under a separate collective agreement.

Our subsidiary, TELUS Sourcing Solutions Inc., is a signatory to a collective agreement with the B.C. Government and Services Employees' Union which covers less than 100 employees. That agreement came into effect on May 1, 2016, and expires on April 30, 2019.

See also *Section 4.2 Operational resources* and *Section 10.5 Human resources — Employee retention, recruitment and engagement* in the 2016 annual MD&A.

5.2 Risk factors

The risk factors in *Section 10 Risks and risk management* in the 2016 annual MD&A are hereby incorporated by reference.

5.3 Regulation

General

Telecommunications services, broadcasting services and radiocommunications services in Canada are regulated under federal legislation by the CRTC, the Minister of Canadian Heritage and the Minister of Innovation, Science and Economic Development pursuant to the Telecommunications Act, the Broadcasting Act and the Radiocommunication Act.

The Telecommunications Act gives the CRTC the power to regulate the provision of telecommunications services, and to forbear from regulating (e.g. not requiring carriers to file tariffs) certain services or classes of services if they are or will be subject to a degree of competition sufficient to protect the interests of customers. The CRTC may refrain, in whole or in part,

and conditionally or unconditionally, from regulating a telecommunications service. For example, even when the CRTC forbears from rate regulation in respect of a service, it can continue to regulate the service in other respects, including with respect to the conditions under which it is offered, for example, to ensure network access and interconnection.

See *Section 10.4 Regulatory matters — Changes to our regulatory regime* in the 2016 annual MD&A for further details related to regulation generally.

Regulation of wireless services

Wireless telecommunications services depend on the use of radio frequencies. The use of radio spectrum and radio apparatus is subject to licensing by the Minister of Innovation, Science and Economic Development pursuant to the Radiocommunication Act. The CRTC has jurisdiction over the rates, terms and conditions applicable to the provision of wireless service. The CRTC and the Minister of Innovation, Science and Economic Development exercise complementary, non-overlapping jurisdiction over wireless service — each regulating different aspects of the same service. The Minister of Innovation, Science and Economic Development has the authority to suspend or revoke radio authorizations (i) with the consent of the holder, (ii) where the holder has contravened the Radiocommunication Act, the regulations or terms and conditions of its radio authorization, or where the radio authorization was obtained through misrepresentation, and (iii) where the holder has failed to comply with a request to pay fees or interest due. Licence revocation is rare; licences are usually renewed upon expiration. Commercial mobile radio spectrum licences are typically issued for durations of 10 or 20 years with a high expectation of renewal where all conditions of licence, including deployment, have been met.

See *Section 9.4 Telecommunications industry regulatory developments and proceedings* in the 2016 annual MD&A for further details related to regulation of wireless services generally and specifically in relation to the review of Wireless Code and the wireless wholesale services review.

Radiocommunications authorizations and spectrum licences

TELUS subsidiaries hold radio authorizations for a variety of wireless services and applications, both mobile and fixed, including for 1.9 GHz personal communications services (PCS) spectrum throughout Canada, 800 MHz SMR/ESMR spectrum in all of the major Canadian markets, cellular 850 MHz spectrum in Alberta, B.C. and Eastern Québec, AWS-1 spectrum nationally, 700 MHz spectrum nationally, 2500 MHz spectrum nationally, and AWS-3 spectrum in major Canadian markets. TELUS subsidiaries hold various radio spectrum licences in the 2.3 GHz, 3.5 GHz and 24/38 GHz bands throughout Canada, as well as other spectrum licences used for other miscellaneous wireless services.

Broadcasting services

TCC holds Class 1 Regional broadcasting distribution licences to serve areas in each of B.C., Alberta and Quebec. TCC also holds a national licence to operate a video-on-demand programming service and a broadcasting licence to operate a national terrestrial pay-per-view service.

See *Section 10.4 Regulatory matters — Changes to our regulatory regime* in the 2016 annual MD&A for further details related to regulation generally, *Section 9.4 Telecommunications industry regulatory developments and proceedings* in relation to TELUS broadcasting distribution undertakings including with respect to broadcasting distribution undertaking licences held TELUS, enforcement of the CRTC's vertical integration framework and the Minister of Canadian Heritage's review of Canada's cultural policies, and *Section 10.2 Competition* for further details in relation to vertical integration into broadcast content ownership by competitors.

6. DIVIDENDS AND DISTRIBUTIONS

The dividends per Common Share declared with respect to each quarter by TELUS, during the three-year period ended December 31, 2016, are shown below:

Quarter ended [1]	2016	2015	2014
March 31	$ 0.44	$ 0.40	$ 0.36
June 30	$ 0.46	$ 0.42	$ 0.38
September 30	$ 0.46	$ 0.42	$ 0.38
December 31	$ 0.48	$ 0.44	$ 0.40
Total	**$ 1.84**	**$ 1.68**	**$ 1.52**

(1) Paid on or about the first business day of the next month.

Our shareholders received a total of $1.84 per share in declared dividends in 2016, an increase of 9.5% from 2015. Our Board reviews the dividend rate quarterly. Our quarterly dividend rate will depend on an ongoing assessment of free cash flow generation and financial indicators including leverage, dividend yield and payout ratio. On February 8, 2017, a first quarter dividend of $0.48 per share was declared, payable on April 3, 2017, to shareholders of record at the close of business on March 10, 2017. The first quarter dividend for 2017 reflects a cumulative increase of $0.04 per share or 9.1% from the $0.44 per share dividend paid in April 2016, consistent with our multi-year dividend growth program.

We first announced our dividend growth program in May 2011. 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 Board's assessments have resulted in 12 semi-annual dividend increases from 2011 to 2016, with annual increases being approximately 10%. Our long-term dividend payout ratio guideline is 65 to 75% of prospective net earnings per share. Based on dividends announced as of February 8, 2017, and 590 million shares outstanding at December 31, 2016, dividend declarations would total approximately $1.13 billion in 2017, before taking into account any Common Shares purchased and cancelled under our 2017 NCIB. There can be no assurance that we will maintain a dividend growth program through 2019.

7. DESCRIPTION OF CAPITAL STRUCTURE

7.1 General description of capital structure

The authorized capital of TELUS consists of 4,000,000,000 shares, divided into: (1) 2,000,000,000 Common Shares without par value; (2) 1,000,000,000 First Preferred shares without par value, issuable in series and; (3) 1,000,000,000 Second Preferred shares without par value, issuable in series. The Common Shares are listed for trading on the Toronto Stock Exchange (TSX) and the New York Stock Exchange (NYSE). The replacement of our dual share class structure with a single class of issued and outstanding voting shares became effective February 4, 2013, pursuant to a plan of arrangement under the provision of Division 5 of Part 9 of the *Business Corporations Act* (British Columbia). Consistent with TELUS' move to a single class share structure, at the 2013 annual and special meeting, shareholders approved alterations to the Notice of Articles and the Articles of TELUS to eliminate the class of Non-Voting Shares and increase the maximum number of Common Shares that the Company is authorized to issue from 1,000,000,000 to 2,000,000,000, in order to keep the aggregate number of equity shares authorized for issuance the same. Shareholders also approved amendments at the same meeting to modernize the Articles, address statutory and regulatory changes and reflect best practice.

Also, a subdivision of the issued and outstanding Common Shares on a two-for-one basis was effected April 16, 2013.

Common Shares

Subject to the prior rights of the holders of First Preferred shares and Second Preferred shares, the Common Shares are entitled to participate with respect to the payment of dividends as declared by the Board and the distribution of assets of TELUS on the liquidation, dissolution or winding up of TELUS.

The holders of the Common Shares are entitled to receive notice of, attend, be heard and vote at any general meeting of the shareholders of TELUS on the basis of one vote per Common Share held. Holders of Common Shares are entitled to vote by a separate resolution for each director rather than a slate.

The Common Shares are subject to constraints on transfer to ensure our ongoing compliance with the foreign ownership provisions of the Telecommunications Act, the Radiocommunication Act and the Broadcasting Act. See *7.2 Constraints – Canadian ownership requirements* in this AIF.

First Preferred shares

The First Preferred shares may be issued from time to time in one or more series, each series comprising the number of shares, and having attached thereto the designation, rights, privileges, restrictions and conditions which the Board determines by resolution and subject to filing an amendment to the Notice of Articles and Articles of TELUS. No series of First Preferred shares may have attached thereto the right to vote at any general meeting of TELUS or the right to be convertible into or exchangeable for Common Shares. Except as required by law, the TELUS holders of the First Preferred shares as a class are not entitled to receive notice of, attend or vote at any meeting of the shareholders of TELUS. The First Preferred shares rank prior to the Second Preferred shares and Common Shares with respect to priority in payment of dividends and in the distribution of assets in the event of liquidation, dissolution or winding up of TELUS.

Second Preferred shares

The Second Preferred shares may be issued from time to time in one or more series, each series comprising the number of shares, and having attached thereto the designation, rights, privileges, restrictions and conditions, which the Board determines by resolution and subject to filing an amendment to the Notice of Articles and Articles of TELUS. No series of Second Preferred shares may have attached thereto the right to vote at any general meeting of TELUS or the right to be convertible into or exchangeable for Common Shares. Except as required by law, the holders of the Second Preferred shares as a class are not entitled to receive notice of, attend or vote at any meeting of the shareholders of TELUS. The Second Preferred shares rank, subject to the prior rights of the holders of the First Preferred shares, prior to the Common Shares with respect to priority in payment of dividends and in the distribution of assets in the event of liquidation, dissolution or winding up of TELUS.

Shareholder rights plan

We first adopted a shareholder rights plan in March 2000, which expired on March 20, 2010. The TELUS Board of Directors adopted a substantially similar shareholder rights plan (Rights Plan) on March 12, 2010 (Effective Date), which

was ratified by shareholders of both share classes at the May 2010 annual and special meeting. On May 9, 2013, the holders of the Common Shares approved the amendment of, and reconfirmation of, the Rights Plan, which among other things, reflected the elimination of the Non-Voting Share class from TELUS' authorized share structure, and at the annual general meeting held on May 5, 2016, the holders of the Common Shares approved the reconfirmation of the Rights Plan. The Rights Plan has a term expiring upon the conclusion of the Company's annual meeting in 2019.

Under the current Rights Plan, TELUS issued one right (Right) in respect of each Common Share outstanding as at the Effective Date. The Rights Plan has a term of just over nine years, subject to shareholder confirmation every three years. Each Right, other than those held by an Acquiring Person (as defined in the Rights Plan) and certain of its related parties, entitles the holder in certain circumstances following the acquisition by an Acquiring Person of 20% or more of the Common Shares of TELUS (otherwise than through the "Permitted Bid" requirements of the Rights Plan) to purchase from TELUS $320 worth of Common Shares for $160 (i.e. at a 50% discount) respectively.

Normal course issuer bid and shelf prospectus

On September 14, 2016, we successfully completed our 2016 normal course issuer bid (2016 NCIB), purchasing and cancelling approximately 9,691,400 Common Shares and returning $379 million to shareholders. The purchased shares represent 1.6% of the Common Shares outstanding prior to commencement of the 2016 NCIB. With the conclusion of the 2016 NCIB, TELUS has purchased and cancelled 66 million shares for $2.4 billion since its multi-year share purchase program began in 2013, reducing shares outstanding by 10.1 per cent.

In addition, we received approval from the TSX for a new NCIB program (2017 NCIB) to purchase and cancel up to 8 million Common Shares with a value of up to $250 million over a 12-month period, commencing September 30, 2016. Such purchases may be made through the facilities of the TSX, the NYSE and alternative trading platforms or otherwise as may be permitted by applicable securities laws and regulations. This represents up to 1.4% of outstanding TELUS Common Shares prior to the commencement of the 2017 NCIB. Other than as noted below, all Common Shares purchased by TELUS will be cancelled. In lieu of purchasing and cancelling shares, an employee benefit plan trust for non-executive TELUS employees received regulatory approval to purchase up to 25 per cent of the Common Shares under the 2017 NCIB for distribution to non-executive TELUS employees. Shares will be purchased only when and if we consider it opportunistic. There can be no assurance that we will complete our 2017 NCIB program or that we will renew and complete our NCIB program in each of the next two years, as any decision to purchase shares will depend on the assessment by our Board and the determination of the Company's financial position and outlook, and the market price of TELUS Common Shares. See risk discussion in Section 10.7 *Financing, debt requirements and returning cash to shareholders* of our 2016 annual MD&A.

On March 29, 2016, we filed a shelf prospectus, which was amended and restated on August 30, 2016, in effect until April 2018, pursuant to which we may offer up to $3 billion of long-term debt or equity securities. On September 19, 2016, we issued U.S.$600 million of senior unsecured notes with a 10-year maturity at 2.80%. On March 6, 2017, we issued U.S.$500 million of senior unsecured notes with a 10-year maturity at 3.70% and $325 million of senior unsecured notes with a 31-year maturity at 4.70%. As of March 15, 2017, we can offer up to $1.2 billion of debt or equity securities under the existing shelf prospectus.

7.2 Constraints

Canadian ownership requirements

Certain subsidiaries of TELUS Corporation or partnerships in which TELUS Corporation has a controlling interest, are Canadian carriers, holders of radio authorizations and holders of broadcasting licences, and are required by the *Telecommunications Act* (Canada) (Telecommunications Act) and the Direction to the CRTC *(Ineligibility of Non-Canadians)* issued pursuant to the *Broadcasting Act* (Canada) (Broadcasting Act) to be Canadian-owned and controlled. Under the Telecommunications Act, a Canadian carrier, such as TCC is considered to be Canadian-owned and controlled if:

(i) not less than 80% of the members of its board of directors are individual Canadians;
(ii) Canadians beneficially own not less than 80% of its voting interests; and
(iii) it is not otherwise controlled in fact by persons who are not Canadians.

Substantially the same rules apply under the Broadcasting Act, but an additional requirement under the Broadcasting Act is that the chief executive officer of a company that is a licensed broadcasting undertaking must be a Canadian citizen or a permanent resident of Canada. TELUS Corporation has filed with the CRTC the requisite documentation affirming TCC's status as a Canadian carrier. We further intend that TCC will remain controlled by TELUS Corporation and that it will remain "Canadian" for the purposes of Canadian ownership requirements.

The *Canadian Telecommunications Common Carrier Ownership and Control Regulations* (Ownership and Control Regulations), made pursuant to the Telecommunications Act further provide that in order for a company that holds shares in a carrier (carrier holding corporation) to be considered Canadian, not less than 66-2/3% of the issued and outstanding voting shares of that company must be beneficially owned by Canadians and that such company must not otherwise be controlled in fact by non-Canadians. To the best of our knowledge, Canadians beneficially own and control

in the aggregate not less than 66-2/3% of the issued and outstanding Common Shares of TELUS Corporation and TELUS Corporation is not otherwise controlled in fact by non-Canadians. For the purposes of these regulations, "Canadian" means among other things:

(i) a Canadian citizen who is ordinarily resident in Canada;
(ii) a permanent resident of Canada who is ordinarily resident in Canada and has been so for not more than one year after the date he or she was eligible to apply for Canadian citizenship;
(iii) a corporation with not less than 66-2/3% of the issued and outstanding voting shares of which are beneficially owned and controlled by Canadians and which is not otherwise controlled in fact by non-Canadians; or
(iv) a pension fund society the majority of whose members of its board of directors are individual Canadians, and that is established under applicable federal legislation or any provincial legislation relating to the establishment of pension fund societies.

The Ownership and Control Regulations provide Canadian carriers and carrier holding corporations, such as TELUS Corporation, with the time and ability to rectify ineligibility resulting from insufficient Canadian ownership of voting interests. Under the Ownership and Control Regulations, such corporations may refuse the subscription, issuance, transfer or purchase of voting interests, if necessary, to ensure that they and their subsidiaries remain eligible under such legislation. For such purposes, in particular but without limitation, a company may, in accordance with the provisions contained in the Ownership and Control Regulations:

(i) refuse to accept any subscription for voting shares;
(ii) refuse to allow any transfer of voting shares to be recorded in its share register;
(iii) suspend the rights of a holder of voting shares to vote at a meeting of its shareholders; and
(iv) sell, repurchase or redeem excess voting shares.

To ensure that TELUS Corporation remains Canadian and that any subsidiary of TELUS Corporation, including TCC, is and continues to be eligible to operate as a Canadian carrier under the Telecommunications Act, to be issued radio authorizations under the *Radiocommunication Act* (Canada) (Radiocommunication Act), or to be issued broadcasting licences under the Broadcasting Act, provisions substantially similar to the foregoing have been incorporated into the Articles of TELUS Corporation permitting its directors to make determinations to effect any of the foregoing actions.

In addition, TELUS has systems in place to monitor the level of Canadian ownership of its Common Shares. For registered shareholders and shares trading on the Toronto Stock Exchange, a reservation and declaration system requires non-Canadian purchasers of Common Shares to obtain a reservation number from our transfer agent and registrar, Computershare Trust Company and to declare whether or not the purchaser is a Canadian or non-Canadian. For Common Shares trading on the New York Stock Exchange, non-Canadian ownership is monitored by utilizing the Depository Trust & Clearing Corporation's SEG-100 Account program. All TELUS Common Shares held by non-Canadians must be transferred to this account (no reservation application is required).

The Telecommunications Act was amended in June 2012 to remove foreign ownership restrictions for telecommunications common carriers that hold less than a 10% share of the total Canadian telecommunications services revenues. This change was made to enable non-Canadian owned entities to start up or acquire Canadian carriers that hold less than a 10% share of total Canadian telecommunications services revenues. However, given that TELUS and its affiliates exceed this 10% threshold, we remain subject to the pre-existing Canadian ownership and control restrictions outlined above. Canadian ownership requirements for licensees under the Broadcasting Act remain unchanged.

See *Section 10.4 Regulatory matters* in the 2016 annual MD&A for further details related to regulation generally and specifically in relation to Canadian ownership requirements applicable to Canadian common carriers (Restrictions on foreign ownership).

7.3 Ratings

The following information relating to our credit ratings is provided as it relates to our financing costs, liquidity and operations. Additional information relating to credit ratings is contained in *Section 7.5 - Liquidity and capital resource measures* to *Section 7.8 - Credit ratings* in the 2016 annual MD&A.

Credit ratings are important to our borrowing costs and ability to obtain short-term and long-term financing and the cost of such financing. Credit ratings are intended to provide investors with an independent measure of the credit quality of an issue of securities and are indicators of the likelihood of payment and of the capacity of a company to meet its financial commitment on the rated obligation in accordance with the terms of the rated obligation. A reduction in the current rating on our debt by rating agencies, particularly a downgrade below investment grade ratings or a negative change in ratings outlook could adversely affect our cost of financing and our access to sources of liquidity and capital. We believe our investment grade credit ratings, coupled with our efforts to maintain constructive relationships with banks, investors and credit rating agencies, continue to provide TELUS with reasonable access to capital markets. In addition, credit ratings may be important to customers or counterparties when we compete in certain markets and when we seek to engage in certain transactions including transactions involving over-the-counter derivatives. As at December 31, 2016, TCI is a party to an agreement expiring in December 2018, with an arm's-length securitization trust associated with a major Schedule I bank, under which TCI is able to sell an interest in certain trade receivables up to a maximum of $500

million. TCI is required to maintain at least a BB credit rating by DBRS Ltd. (DBRS) or the securitization trust may require the sale program to be wound down.

The rating agencies regularly evaluate TELUS and TCI, and their ratings of our long-term and short-term debt are based on a number of factors, including our financial strength as well as factors not entirely within our control, including conditions affecting the telecommunications industry generally, and the wider state of the economy. The Company's credit ratings are outlined in the chart below. Credit ratings are not recommendations to purchase, hold or sell securities and do not address the market price or suitability of a specific security for a particular investor. In addition, real or anticipated changes in the rating assigned to a security will generally affect the market value of that security. There can be no assurance that a rating will remain in effect for any given period of time or that a rating will not be revised or withdrawn entirely by a rating agency in the future.

Credit rating summary	DBRS Ltd.	Standard & Poor's Rating Services	Moody's Investor Services	FitchRatings
TELUS Corporation				
Notes	BBB (high)	BBB+	Baa1	BBB+
Commercial paper	R-2 (high)	A-2	P-2	—
TELUS Communications Inc.				
Debentures	BBB (high)	BBB+	—	BBB+

Institution	Rating

DBRS	The DBRS® long-term rating scale provides an opinion on the risk of default. That is, the risk that an issuer will fail to satisfy its financial obligations in accordance with the terms under which an obligation has been issued. Ratings are based on quantitative and qualitative considerations relevant to the issuer, and the relative ranking of claims. All rating categories, other than "AAA" and "D", also contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the rating is in the middle of the category. A "BBB" rating denotes adequate credit quality. The capacity for the payment of financial obligations is considered acceptable. May be vulnerable to future events.
S&P	A S&P issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium-term note programs and commercial paper programs). It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The opinion reflects S&P's view of the obligor's capacity and willingness to meet its financial commitments as they come due, and may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of default. An obligation rated "BBB" exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation. The ratings from "AA" to "CCC" may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.
Moody's	Moody's long-term ratings are assigned to issuers or obligations with an original maturity of one year or more and reflect both on the likelihood of a default on contractually promised payments and the expected financial loss suffered in the event of default. Obligations rated "Baa" are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics. Moody's appends numerical modifiers 1, 2, and 3 to each generic rating classification from "Aa" through "Caa". The modifier 1 indicates that the obligation ranks in the higher end of its generic rating category; the modifier 2 indicates a mid-range ranking; and the modifier 3 indicates a ranking in the lower end of that generic rating category. A Moody's rating outlook is an opinion regarding the likely rating direction over the medium term. A stable outlook indicates a low likelihood of a rating change over the medium term. A negative, positive or developing outlook indicates a higher likelihood of a rating change over the medium term.

Institution	Rating
Fitch	Rated entities in a number of sectors, including financial and non-financial corporations, sovereigns and insurance companies are generally assigned issuer default ratings ("IDRs"). IDRs opine on an entity's relative vulnerability to default on financial obligations. The "threshold" default risk addressed by the IDR is generally that of the financial obligations whose non-payment would best reflect the uncured failure of that entity. As such, IDRs also address relative vulnerability to bankruptcy, administrative receivership or similar concepts, although the agency recognizes that issuers may also make pre-emptive and therefore voluntary use of such mechanisms. In aggregate, IDRs provide an ordinal ranking of issuers based on the agency's view of their relative vulnerability to default, rather than a prediction of a specific percentage likelihood of default. "BBB" ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity. The modifiers "+" or "-" may be appended to a rating to denote relative status within major rating categories. Such suffixes are not added to the "AAA" Long-Term IDR category, or to Long-Term IDR categories below "B".

As is common practice, during the last two years, each of the above-noted credit rating agencies charged TELUS for their rating services which include annual surveillance fees covering our outstanding long-term and short-term debt securities, in addition to one-time rating fees for certain agencies when debt is initially issued. We reasonably expect that such payments will continue to be made for rating services in the future.

8. MARKET FOR SECURITIES

8.1 Trading Price and Volume

TELUS' Common Shares are listed on the TSX under the symbol "T" and on the NYSE under the symbol "TU". Monthly share prices and volumes for 2016 are listed below:

	TSX — Common Shares			NYSE — Common Shares		
Month	**High($)**	**Low($)**	**Volume**	**High ($U.S.)**	**Low ($U.S.)**	**Volume**
January	39.44	35.51	31,478,362	28.05	24.34	6,345,849
February	40.56	38.08	33,611,872	29.42	27.35	6,112,672
March	42.59	38.88	28,157,803	32.96	28.92	4,824,985
April	42.38	39.11	27,860,471	32.51	30.90	4,698,407
May	41.80	39.30	23,030,678	32.16	30.64	4,344,204
June	42.00	40.10	23,038,888	32.82	31.07	3,619,766
July	44.15	41.70	16,228,603	33.74	32.22	3,572,188
August	44.39	42.46	15,082,194	34.07	32.56	4,069,516
September	44.05	41.54	17,449,536	34.12	31.50	3,717,389

October	43.68	41.96	17,244,225	33.22	31.54	3,454,297
November	43.56	40.97	22,488,338	32.54	30.31	5,021,763
December	43.12	41.52	23,805,626	32.86	31.18	5,851,969

8.2 Prior Sales

On September 19, 2016, under a short form base shelf prospectus filed on August 30, 2016 with securities regulatory authorities in Canada and the United States, TELUS completed a debt offering: U.S.$600 million 2.80% notes due February 16, 2027.

Please refer to TELUS Corporation 2016 year-end audited consolidated financial statements - *Note 26(b) TELUS Corporation Notes* for details on our past debt offerings.

In addition, in the ordinary course of business, the Company has the capability to issue commercial paper with maturities of less than 12 months. As at December 31, 2016, the Company had $613 million of commercial paper outstanding, all of which was denominated in U.S. dollars (U.S.$456 million).

On March 6, 2017, under a short form base shelf prospectus filed on August 30, 2016, with securities regulatory authorities in Canada and the United States, TELUS completed two debt offerings: 1) a U.S.$500 million offering of 3.70% notes due September 15, 2027; and 2) a $325 million offering consisting of 4.70% Notes, Series CW, due March 6, 2048.

9. DIRECTORS AND OFFICERS

9.1 Name, occupation and security holding

Directors

The names, municipalities of residence and principal occupations of the directors of TELUS as at March 15, 2017, the date each such person became a director of TELUS and committee membership are as set out below. Currently, there are 12 directors on the Board. Each was elected at TELUS' annual general meeting on May 5, 2016. Each director's term of office will expire immediately before the election of directors at the upcoming annual general meeting on May 11, 2017. They have, however, all been nominated for re-election at the upcoming meeting except for Micheline Bouchard who has decided to retire and will not be seeking re-election at the 2017 annual general meeting. There will be 13 directors nominated for election to the Board at the 2017 annual general meeting, including two new nominees.

Directors of TELUS (Name and municipality of residence)	Director since	Principal occupation
R.H. (Dick) Auchinleck [1] Victoria, B.C.	2003	Chair, TELUS Corporation
Micheline Bouchard [2, 4] Montréal, Québec	2004	Corporate Director
Raymond T. Chan [1, 2] Calgary, Alberta	2013	Chair, Baytex Energy Corp. (oil and natural gas corporation)
Stockwell Day [2, 4 — Chair] Vancouver, B.C.	2011	Advisor and Consultant
Lisa de Wilde [3, 4] Toronto, Ontario	2015	CEO, Ontario Educational Communications Authority (TVO)
Darren Entwistle Vancouver, B.C.	2000	President and Chief Executive Officer, TELUS Corporation
Mary Jo Haddad [2, 3] Oakville, Ontario	2014	Corporate Director
John S. Lacey [2 — Chair] Thornhill, Ontario	2000	Corporate Director
William (Bill) MacKinnon [1 — Chair] Toronto, Ontario	2009	Corporate Director
John Manley [3 — Chair, 4] Ottawa, Ontario	2012	President & Chief Executive Officer, Business Council of Canada (previously the Canadian Council of Chief Executives)

Sabi Marwah [1, 3] Toronto, Ontario	2015	Senator, Senate of Canada
David Mowat [1] Edmonton, Alberta	2016	President and Chief Executive Officer, ATB Financial

(1) Member of Audit Committee
(2) Member of Human Resources and Compensation Committee
(3) Member of Corporate Governance Committee
(4) Member of Pension Committee

All of the directors of TELUS have held the principal occupations set forth above or executive positions with the same companies or firms referred to, or with affiliates or predecessors thereof, for the past five years except as follows: Mary Jo Haddad was President and CEO of The Hospital for Sick Children (SickKids) in Toronto from 2004 until 2013; Sabi Marwah was Vice Chairman and Chief Operating Officer of the Bank of Nova Scotia from 2008 until 2014.

Executive officers

The name, municipality of residence and principal occupations of each of the executive officers of TELUS, as of March 15, 2017, are as follows:

Executive Officers of TELUS (Name and municipality of residence)	Position held with TELUS
Darren Entwistle Vancouver, B.C.	President and Chief Executive Officer
Doug French Vancouver, B.C.	Executive Vice President and Chief Financial Officer
Phil Bates Vancouver, B.C.	Executive Vice President, Business Transformation and Operations
Josh Blair Vancouver, B.C.	Chief Corporate Officer and Executive Vice President- TELUS Health, President, Business Solutions West and Chair- TELUS International
David Fuller Toronto, Ontario	Executive Vice President and President, TELUS Consumer and Small Business Solutions
Tony Geheran Vancouver, B.C.	Executive Vice President and President, Broadband Networks
Francois Gratton Montreal, Quebec	Executive Vice President, TELUS Partner Solutions and President, Business Solutions East and TELUS Québec
Stephen Lewis Vancouver, B.C.	Senior Vice President and Treasurer
Sandy McIntosh Toronto, Ontario	Executive Vice President, People and Culture and Chief Human Resources Officer
Monique Mercier Vancouver, B.C.	Executive Vice President, Corporate Affairs, and Chief Legal and Governance Officer
Eros Spadotto Oakville, Ontario	Executive Vice President, Technology Strategy

All of the executive officers of TELUS have held their present positions or other executive positions with the Company during the past five years or more.

TELUS shares held by directors and executive officers

As at March 10, 2017, the directors and executive officers of TELUS, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 804,003 Common Shares, which represented approximately 0.14% of the outstanding Common Shares.

9.2 Cease trade orders, bankruptcies, penalties or sanctions

Other than as disclosed below, for the 10 years ended March 15, 2017, we are not aware that any current director or executive officer of TELUS had been a director or executive officer of any issuer which, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt or made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets.

- John Manley was a director of Nortel Networks Corporation and Nortel Networks Limited (together, the Nortel Companies) when the Nortel Companies and certain other Canadian subsidiaries initiated creditor protection proceedings under the CCAA in Canada on January 14, 2009. Certain U.S. subsidiaries filed voluntary petitions in the United States under Chapter 11 of the U.S. Bankruptcy Code, and certain European, Middle Eastern and African subsidiaries made consequential filings in Europe and the Middle East. These proceedings are ongoing. Mr. Manley resigned as a director of the Nortel Companies on August 10, 2009.

For the 10 years ended March 15, 2017, we are not aware that any current director or executive officer of TELUS had been a director, chief executive officer or chief financial officer of any issuer which was the subject of a cease trade or similar order while that person was acting in that capacity, or was subject to such an order issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and resulted from an event that occurred while that person was acting in that capacity, or any order which denied such company access to any exemption under securities legislation for a period of more than 30 consecutive days.

10. LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Legal proceedings are described in *Section 10.9 Litigation and legal matters* in the 2016 annual MD&A and in the Company's December 31, 2016, consolidated financial statements *Note 29(a) Claims and lawsuits*.

From time to time, in the ordinary course of business, the Company and its subsidiaries are assessed fees or fines by securities regulatory authorities in relation to administrative matters, including late filing fees or reporting, which may be considered penalties or sanctions pursuant to Canadian securities regulations but which are not, individually or in the aggregate, material to the Company. In addition, the Company and its subsidiaries are subject to numerous regulatory authorities around the world, and fees, administrative penalties, settlement agreements and sanctions may be categorized differently by each regulator. However, during the most recently completed financial year, the Company is not aware of any material (i) penalties or sanctions imposed against us by a court relating to securities legislation or by a securities regulatory authority; (ii) penalties or sanctions imposed by a court or regulatory body against us that would likely be considered important to a reasonable investor in making an investment decision; or (iii) settlement agreements entered into by us before a court relating to securities legislation or with a securities regulatory authority.

11. INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

To the best of our knowledge, there were no directors or executive officers, or any associate or affiliate of a director or executive officer with a material interest in any transaction within the three most recently completed financial years or during the current financial year that has materially affected or is reasonably expected to materially affect us.

12. TRANSFER AGENT AND REGISTRAR

Our transfer agent and registrar is Computershare Trust Company of Canada. Computershare maintains the Company's registers at 600, 530 - 8th Avenue SW, Calgary, Alberta T2P 3S8.

13. MATERIAL CONTRACTS

As at December 31, 2016, TCI is a party to a three-year agreement (expiry December 31, 2018) with an arm's-length securitization trust associated with a major Schedule I bank, under which TCI is able to sell an interest in certain of its trade receivables up to a maximum of $500 million. TCI 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. The necessary credit rating was exceeded throughout its term.

On May 4, 2016, TELUS entered into a replacement five-year $2.25 billion unsecured credit facility (2016 Credit Facility) with a syndicate of financial institutions. The 2016 Credit Facility replaces TELUS' previous $2.25 billion facility which would have matured in the second quarter of 2019. The 2016 Credit Facility may be used for general corporate purposes including the backstop of commercial paper. The material terms of the 2016 Credit Facility are substantively the same as TELUS' previous credit facility other than an extension of the term to May 2021.

14. INTERESTS OF EXPERT

Deloitte LLP, Chartered Professional Accountants, is the auditor of the Company and is independent within the meaning of the Rules of Professional Conduct of the Chartered Professional Accountants of British Columbia.

15. AUDIT COMMITTEE

The Audit Committee of the Company supports the Board in fulfilling its oversight responsibilities regarding the integrity of our accounting and financial reporting, internal controls and disclosure controls, legal and regulatory compliance, ethics policy and timeliness of filings with regulatory authorities, the independence and performance of our external and internal auditors, the management of our risk, credit worthiness, treasury plans and financial policy and whistleblower and complaint procedures. A copy of the Audit Committee's Terms of Reference is attached as Appendix A to this AIF.

The current members of the Audit Committee are Bill MacKinnon (Chair), Dick Auchinleck, Ray Chan, Sabi Marwah and David Mowat. Each member of the Audit Committee is independent and financially literate within the meaning of Multilateral Instrument 52-110 "Audit Committees" and the Board has determined that Bill MacKinnon is an audit committee financial expert and has accounting or related financial management expertise. The following lists the relevant education and experience of the members of TELUS' Audit Committee that is relevant to their role on the committee.

Bill MacKinnon chairs the Audit Committee. He is the former Chief Executive Officer of KPMG Canada, serving from April 1999, to December 31, 2008. He first joined KPMG Canada in 1971, serving the company in numerous roles of increasing leadership for 37 years, including his membership on the board of directors of each of KPMG Canada, KPMG International and KPMG Americas. Mr. MacKinnon obtained a Bachelor of Commerce with Honours from the University of Manitoba in 1967. He is a Chartered Professional Accountant and holds

his FCPA designation from the Institute of Chartered Professional Accountants of Ontario.

Dick Auchinleck is a corporate director and Chair of the Board of TELUS Corporation. He was Lead Director of TELUS from May 2014 to August 2015. He is also currently the lead director of ConocoPhillips, an oil and gas company. Dick was employed by Gulf Canada Resources Limited for 25 years, retiring in 2001 as President and Chief Executive Officer after the sale of the company to Conoco Inc. Dick has a Bachelor of Applied Science (Chemical Engineering) from the University of British Columbia.

Ray Chan is Chair of Baytex Energy Corp. (formerly Baytex Energy Trust). He was Chief Financial Officer of Baytex from 1998 to 2003 and Chief Executive Officer until 2008, when he assumed the role of Executive Chair. In 2014, he became Chair of Baytex in a non-executive capacity. Mr. Chan obtained a Bachelor of Commerce degree (with a major in accounting) from the University of Saskatchewan in 1977 and he became a Chartered Professional Accountant in 1980. Mr. Chan has served as CEO and CFO of public companies for over 25 years and has served on public company boards, in most instances chairing the audit committee, for over 15 years.

Sabi Marwah retired as the Vice Chairman and Chief Operating Officer of the Bank of Nova Scotia (Scotiabank) in 2014, a position he held since 2008. As Vice Chairman, Sabi was responsible for many of Scotiabank's corporate financial and administrative functions and was actively involved in developing the bank's strategic plans and priorities, including acquisitions both in Canada and internationally. His career with Scotiabank spanned 35 years, during which he held several senior positions including Senior Vice-President and Comptroller and Executive Vice-President. He was appointed Chief Financial Officer (CFO) in 1998 and Senior Executive Vice-President and CFO in 2002. Sabi holds a Bachelor of Arts (Economics - Honours) from the University of Calcutta, a Master of Economics from the University of Delhi and an MBA (Finance) from the University of California, Los Angeles (UCLA). In 2012, he received an Honorary Doctorate of Laws from Ryerson University. In November 2016, Sabi was appointed as a Senator to the Senate of Canada.

David Mowat is President and CEO of ATB Financial, a position he has held since June 2007. Prior to that, he was the CEO of Vancouver City Savings Credit Union from 2000 until 2007. In 2015, he was named chair of the Alberta Royalty Review panel. David holds a Bachelor of Commerce from the University of British Columbia. In 2015, he received an Honorary Bachelor of Business Administration from the Southern Alberta Institute of Technology.

Audit, audit-related and non-audit services

All requests for non-prohibited audit, audit-related and non-audit services provided by TELUS' external auditor and its affiliates to TELUS are required to be pre-approved by TELUS' Audit Committee. To enable this, we have implemented a process by which all requests for services involving the external auditor are routed for review by the VP Risk Management and Chief Internal Auditor to validate that the requested service is a non-prohibited service and to verify that there is a compelling business reason for the request. If the request passes this review, it is then forwarded to the Chief Financial Officer for further review. Pending the Chief Financial Officer's affirmation, the request is then presented to the Audit Committee for its review, evaluation and pre-approval or denial at its next scheduled quarterly meeting. If the timing of the request is urgent, it is provided to the Audit Committee Chair for his or her review, evaluation and pre-approval or denial on behalf of the Audit Committee (with the full committee's review at the next scheduled quarterly meeting). Throughout the year, the Audit Committee monitors the actual versus approved expenditure for each of the approved requests.

The following table is a summary of billings by Deloitte LLP (Deloitte), as external auditor of TELUS, during each of the years ended December 31, 2016 and 2015.

	Year ended December 31, 2016		Year ended December 31, 2015	
Type of work	**$ millions**	**%**	**$ millions**	**%**
Audit fees [1]	4.138	92.2	3.844	88.6
Audit-related fees [2]	0.133	3.0	0.140	3.2
Tax fees [3]	0.017	0.4	0.103	2.4
All other fees [4]	0.197	4.4	0.254	5.8
Total	**4.485**	**100.0**	4.341	100.0

(1) Includes fees for services rendered by Deloitte in relation to the audit and review of our financial statements and in connection with our statutory and regulatory filings.
(2) Includes fees for translation services rendered by Deloitte in relation to the audit or review of our financial statements that were not part of audit fees.
(3) Relates to tax compliance, tax advice and tax planning.
(4) Includes fees for services rendered by Deloitte that were not in relation to the audit or review of our financial statements, such as the community investment impact measurement (2015/2016) and privacy data insights (2016).

16. ADDITIONAL INFORMATION

Additional information relating to TELUS may be found on SEDAR at sedar.com and EDGAR at sec.gov. Additional information regarding directors' and officers' remuneration, and securities authorized for issuance under equity compensation plans, will be contained in TELUS' information circular for the annual meeting to be held on May 11, 2017. Additional financial information is provided in the Company's consolidated financial statements and MD&A for the year ended December 31, 2016. All of the above information can also be found at telus.com.

APPENDIX A: TERMS OF REFERENCE FOR THE AUDIT COMMITTEE

The Board has established an Audit Committee (the "Committee") to assist the Board in fulfilling its oversight responsibilities regarding the integrity of the Company's accounting and financial reporting, the Company's internal controls and disclosure controls, the Company's legal and regulatory compliance, the Company's ethics policy and timeliness of filings with regulatory authorities, the independence and performance of the Company's external and internal auditors, the identification and management of the Company's risks, the Company's credit worthiness, treasury plans and financial policy and the Company's whistleblower and complaint procedures.

1. MEMBERSHIP

1.1 The Committee will have a minimum of three members, including the chair of the Committee. The Board, upon the recommendation of the Corporate Governance Committee, will appoint and remove the members of the Committee by a majority vote. The members will sit on the Committee at the pleasure of the Board.

1.2 The Board, upon the recommendation of the Corporate Governance Committee, will appoint the chair of the Committee from the Committee's members by a majority vote. The chair of the Committee will hold such position at the pleasure of the Board.

1.3 All members of the Committee will be Independent Directors.

1.4 All members of the Committee will be financially literate, as defined in accordance with applicable securities laws and standards of the stock exchanges on which the Company's securities are listed.

1.5 At least one member of the Committee will be an audit committee financial expert, as defined in accordance with applicable securities laws, and at least one member of the Committee will have accounting or related financial management expertise, as defined in accordance with applicable securities laws.

2. MEETINGS

2.1 The Committee will meet at least once each quarter and otherwise as necessary. Any member of the Committee may call meetings of the Committee.

2.2 All directors of the Company, including management directors, may attend meetings of the Committee provided, however, that no director is entitled to vote at such meetings and is not counted as part of the quorum for the Committee if he or she is not a member of the Committee.

2.3 Notwithstanding section 2.2 above, the Committee will, as a regular feature of each regularly scheduled meeting, hold an in-camera session with the external auditors and separately with the internal auditors, and an in-camera session without management or management directors present at each meeting. The Committee may, however, hold other in-camera sessions with such members of management present as the Committee deems appropriate.

2.4 The Corporate Secretary or his or her nominee will act as Secretary to the Committee.

2.5 The Committee will report to the Board on its meetings and each member of the Board will have access to the minutes of the Committee's meetings, regardless of whether the director is a member of the Committee.

2.6 The external auditors of the Company will receive notice of every meeting of the Committee and may request a meeting of the Committee be called by notifying the chair of the Committee of such request.

3. QUORUM

The quorum necessary for the transaction of business at Committee meetings will be a majority of the members of the Committee. A quorum once established is maintained even if members of the Committee leave the meeting prior to conclusion.

4. DUTIES

The Board hereby delegates to the Committee the following duties to be performed by the Committee on behalf of and for the Board:

4.1 Financial Reporting

Prior to public disclosure, the Committee will review and recommend to the Board, and where applicable, to the boards of the Company's subsidiaries which are reporting issuers, for approval:

(a) the annual audited consolidated financial statements and interim unaudited consolidated financial statements of the Company and those of its subsidiaries that are reporting issuers, as defined in accordance with applicable securities laws;
(b) the interim and annual management's discussion and analysis of financial condition and results of operations (MD&A) of the Company and those of its subsidiaries that are reporting issuers, as defined in accordance with applicable securities laws;
(c) earnings press releases and earnings guidance, if any; and
(d) all other material financial public disclosure documents of the Company and those of its subsidiaries that are reporting issuers, including prospectuses, press releases with financial results and the Annual Information Form.

4.2 External Auditors

The external auditors will report directly to the Committee and the Committee will:

(a) appoint the external auditors, subject to the approval of the shareholders, and determine the compensation of the external auditors;
(b) conduct an annual review of the external auditors;
(c) oversee the work of the external auditors and review and approve the annual audit plan of the external auditors, including the scope of the audit to be performed and the degree of co-ordination between the plans of the external and internal auditors. The Committee will discuss with the internal auditors, the external auditors and management, the adequacy and effectiveness of the disclosure controls and internal controls over financial reporting of the Company and elicit recommendations for the improvement of such controls or particular areas where new or more detailed controls or procedures are desirable. Particular emphasis will be given to the adequacy of internal controls to prevent, identify or detect fraud, or any payments, transactions or procedures that might be deemed illegal or otherwise improper;
(d) meet regularly with the external auditors without management present and ask the external auditors to report any significant disagreements with management regarding financial reporting, the resolution of such disagreements and any restrictions imposed by management on the scope and extent of the audit examinations conducted by the external auditors;
(e) pre-approve all audit, audit-related and non-audit services to be provided to the Company or any of its subsidiaries, by the external auditors (and its affiliates), in accordance with applicable securities laws. The Committee may also delegate the pre-approval of audit, audit-related and non-audit services to any one member of the Committee, provided, however, a report is made to the Committee on any pre-approval of such services at the Committee's first scheduled meeting following the pre-approval;
(f) annually review the qualifications, expertise and resources and the overall performance of the external audit team and, if necessary, recommend to the Board the termination of the external auditors or the rotation of the audit partner in charge;
(g) at least annually, obtain and review a report by the external auditors describing: the firm's internal quality-control procedures; any material issues raised by the most recent internal quality control review, or peer review of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, respecting one or more independent audits carried out by the firm, and any steps taken to deal with such issues; and all relationships between the external auditors and the Company;
(h) annually assess and confirm the independence, objectivity and professional skepticism of the external auditors and require the external auditors to deliver an annual report to the Committee regarding its independence, such report to include disclosure regarding all engagements (and fees related thereto) by the Company and relationships which may impact the objectivity and independence of the external auditors;
(i) require the external auditors to deliver an annual acknowledgement in writing to the Committee that the shareholders, as represented by the Board and the Committee, are its primary client;
(j) review post-audit or management letters, containing recommendations of the external auditors and management's response;
(k) review reports of the external auditors; and
(l) pre-approve the hiring of employees and former employees of current and former auditors in accordance with applicable securities laws and TELUS policies.

4.3 Internal Auditors

The internal auditors will report functionally to the Committee and administratively to the Chief Financial Officer and the Committee will:

(a) review and approve management's appointment, termination or replacement of the Chief Internal Auditor;
(b) review and consider the annual performance objectives, performance evaluation and compensation treatment of the Chief Internal Auditor;
(c) oversee the work of the internal auditors including reviewing and approving the annual internal audit plan and updates thereto;
(d) review the report of the internal auditors on the status of significant internal audit findings, recommendations and management's responses and review any other reports of the internal auditors;
(e) review the scope of responsibilities and effectiveness of the internal audit team, its reporting relationships, activities, organizational structure and resources, its independence from management, its credentials and its working relationship with the external auditors; and
(f) review and approve the internal audit charter and updates thereto on an annual basis.

The internal auditors will report quarterly to the Committee on the results of internal audit activities and will also have direct access to the chair of the Committee when the internal auditors determine it is necessary.

4.4 Whistleblower, Ethics and Internal Controls Processes

The Committee will ensure that the Company has in place adequate procedures for:

(a) the receipt, retention and treatment of complaints received by the Company regarding accounting, internal controls or auditing matters; and
(b) the confidential, anonymous submission by employees of the Company of concerns regarding questionable accounting or auditing matters.

The CEO or CFO will report to the Committee, and the Committee will review such reports, on any fraud, whether or not material, that

involves management or other employees who have a significant role in the Company's internal controls. Where the CEO, CFO and/or the Chief Internal Auditor are named in a complaint, the Director of Ethics will speak directly with the Chair of the Committee.

The Committee will review:

(a) annually and recommend to the Board for approval, together with the Human Resources and Compensation Committee, the ethics policy and material changes thereto;
(b) quarterly reports on ethics breaches pertaining to internal controls over financial reporting, including fraud involving management or other employees who have a role in the Company's internal controls over financial reporting;

The Chief Internal Auditor will report to the Committee, and the Committee will consider such reports, on the results of the investigation of whistleblower, ethics and internal controls complaints.

4.5 Accounting and Financial Management

The Committee will review:

(a) with management and the external auditors, the Company's major accounting policies, including the impact of alternative accounting policies and key management estimates, risks and judgments that could materially affect the financial results and whether they should be disclosed in the MD&A;
(b) emerging accounting issues and their potential impact on the Company's financial reporting;
(c) significant judgments, assumptions and estimates made by management in preparing financial statements;
(d) the evaluation by either the internal or external auditors of management's internal control systems, and management's responses to any identified weaknesses;
(e) the evaluation by management of the adequacy and effectiveness in the design and operation of the Company's disclosure controls and internal controls for financial reporting;
(f) audits designed to report on management's representations on the effectiveness and efficiency of selected projects, processes, programs or departments;
(g) management's approach for safeguarding corporate assets, data and information systems, the adequacy of staffing of key financial functions and their plans for improvements; and
(h) internal interim and post implementation reviews of major capital projects.

4.6 Credit Worthiness, Treasury Plans and Financial Policy

The Committee will review with management:

(a) the Company's financial policies and compliance with such policies;
(b) the credit worthiness of the Company;
(c) the liquidity of the Company; and
(d) important treasury matters including financing plans.

4.7 Legal/Regulatory Matters

The Committee will review:

(a) with management, the external auditors and legal counsel, any litigation, claim or other contingency, including any tax assessment, that could have a material effect upon the financial position or operating results of the Company;
(b) annually, management's relationships with regulators, and the accuracy and timeliness of filings with regulatory authorities;
(c) quarterly reports from the Chief Legal Officer on compliance with laws and regulations; and
(d) quarterly reports from the chief compliance officer on legal, privacy and regulatory compliance activities.

4.8 Risk Management

The Committee will:

(a) consider reports on the annual enterprise business risk assessment and updates thereto;
(b) except to the extent that responsibility is reserved to the Board or delegated to another Board committee, review management's implementation of risk policies and procedures, and assess the appropriateness and comprehensiveness of those policies and procedures;
(c) consider reports on security;
(d) consider reports on financial risk management including derivative exposure and policies;
(e) consider reports on tax risk management and governance; and
(f) review other risk management matters from time to time as the Committee may consider suitable or the Board may specifically direct.

4.9 Other

The Committee will review:

(a) the expenses of the Chair of the Board;
(b) significant related party transactions and actual and potential conflicts of interest relating thereto to verify their propriety and that disclosure is appropriate;
(c) the disclosure policy of the Company and recommend any material changes thereto to the Board for approval;
(d) and evaluate, at least once annually, the adequacy of these Terms of Reference and the Committee's performance, and report its

evaluation and any recommendations for change to the Corporate Governance Committee.

The Committee will also have such other duties and responsibilities as are delegated to it and review such other matters as, from time to time, are referred to it by the Board.

5. AUTHORITY

The Committee, in fulfilling its mandate, will have the authority to:

(a) engage and set compensation for independent counsel and other advisors;
(b) communicate directly with the Chief Financial Officer, internal and external auditors, chief compliance officer and Chief General Counsel;
(c) delegate tasks to Committee members or subcommittees of the Committee; and access appropriate funding as determined by the Committee.



Exhibit 99.4:

Audited Consolidated Financial Statements as at and for the year ended December 31, 2016 and Management's Discussion and Analysis

[previously filed on SEDAR]

TELUS CORPORATION

CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 2016

---

report of management on internal control over financial reporting

Management of TELUS Corporation (TELUS, or the Company) is responsible for establishing and maintaining adequate internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting.

TELUS' President and Chief Executive Officer and Executive Vice-President and Chief Financial Officer have assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016, in accordance with the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Internal control over financial reporting is a process designed by, or under the supervision of, the President and Chief Executive Officer and the Executive Vice-President and Chief Financial Officer and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Due to its inherent limitations, internal control over financial reporting may not prevent or detect misstatements on a timely basis. Also, projections of any evaluation of the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Based on the assessment referenced in the preceding paragraph, management has determined that the Company's internal control over financial reporting is effective as of December 31, 2016. In connection with this assessment, no material weaknesses in the Company's internal control over financial reporting were identified by management as of December 31, 2016.

Deloitte LLP, an Independent Registered Public Accounting Firm, audited the Company's Consolidated financial statements for the year ended December 31, 2016, and as stated in the Report of Independent Registered Public Accounting Firm, they have expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting as of December 31, 2016.

/s/ "Doug French"	/s/ "Darren Entwistle"
Doug French Executive Vice-President and Chief Financial Officer February 9, 2017	Darren Entwistle President and Chief Executive Officer February 9, 2017

---

report of independent registered public accounting firm

To the Board of Directors and Shareholders of TELUS Corporation

We have audited the accompanying consolidated financial statements of TELUS Corporation and subsidiaries (the Company), which comprise the consolidated statements of financial position as at December 31, 2016 and 2015, and the consolidated statements of income and other comprehensive income, consolidated statements of changes in owners' equity and consolidated statements of cash flows for the years then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

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

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of TELUS Corporation and subsidiaries as at December 31, 2016 and 2015, and their financial performance and their cash flows for the years then ended, in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Other Matter

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as at December 31, 2016, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 9, 2017, expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ "Deloitte LLP"

Deloitte LLP
Chartered Professional Accountants
Vancouver, Canada
February 9, 2017

report of independent registered public accounting firm

To the Board of Directors and Shareholders of TELUS Corporation

We have audited the internal control over financial reporting of TELUS Corporation and subsidiaries (the Company) as of December 31, 2016, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become

inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as at and for the year ended December 31, 2016, of the Company and our report dated February 9, 2017, expressed an unmodified/unqualified opinion on those financial statements.

/s/ "Deloitte LLP"

Deloitte LLP
Chartered Professional Accountants
Vancouver, Canada
February 9, 2017

consolidated statements of income and other comprehensive income

Years ended December 31 (millions except per share amounts)	Note	2016	2015
OPERATING REVENUES			
Service		**$ 12,000**	$ 11,590
Equipment		**725**	840
Revenues arising from contracts with customers		**12,725**	12,430
Other operating income	*6*	**74**	72
		12,799	12,502
OPERATING EXPENSES			
Goods and services purchased		**5,631**	5,532
Employee benefits expense	*7*	**2,939**	2,708
Depreciation	*17*	**1,564**	1,475
Amortization of intangible assets	*18*	**483**	434
		10,617	10,149
OPERATING INCOME		**2,182**	2,353
Financing costs	*8*	**520**	447
INCOME BEFORE INCOME TAXES		**1,662**	1,906
Income taxes	*9*	**426**	524
NET INCOME		**1,236**	1,382
OTHER COMPREHENSIVE INCOME	*10*		
Items that may subsequently be reclassified to income			
Change in unrealized fair value of derivatives designated as cash flow hedges		**(20)**	(4)
Foreign currency translation adjustment arising from translating financial statements of foreign operations		**5**	25
		(15)	21
Item never subsequently reclassified to income			
Employee defined benefit plan re-measurements		**—**	445
		(15)	466
COMPREHENSIVE INCOME		**$ 1,221**	$ 1,848
NET INCOME ATTRIBUTABLE TO:			
Common Shares		**$ 1,223**	$ 1,382
Non-controlling interest		**13**	—
		$ 1,236	$ 1,382
COMPREHENSIVE INCOME ATTRIBUTABLE TO:			
Common Shares		**$ 1,206**	$ 1,848
Non-controlling interest		**15**	—
		$ 1,221	$ 1,848
NET INCOME PER COMMON SHARE	*11*		
Basic		**$ 2.06**	$ 2.29
Diluted		**$ 2.06**	$ 2.29
TOTAL WEIGHTED AVERAGE COMMON SHARES OUTSTANDING			
Basic		**592**	603
Diluted		**593**	604

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

consolidated statements of financial position

As at December 31 (millions)	Note	2016	2015
ASSETS			
Current assets			
Cash and temporary investments, net		**$ 432**	$ 223
Accounts receivable	*16*	**1,471**	1,428
Income and other taxes receivable		**9**	1
Inventories	*1(p)*	**318**	360
Prepaid expenses		**233**	213
Real estate joint venture advances	*21(c)*	**—**	66
Current derivative assets	*4(h)*	**11**	40
		2,474	2,331
Non-current assets			
Property, plant and equipment, net	*17*	**10,464**	9,736
Intangible assets, net	*18*	**10,364**	9,985
Goodwill, net	*18*	**3,787**	3,761
Other long-term assets	*20*	**640**	593
		25,255	24,075
		$ 27,729	$ 26,406
LIABILITIES AND OWNERS' EQUITY			
Current liabilities			
Short-term borrowings	*22*	**$ 100**	$ 100
Accounts payable and accrued liabilities	*23*	**2,330**	1,990
Income and other taxes payable		**37**	108
Dividends payable	*12*	**284**	263
Advance billings and customer deposits	*24*	**737**	760
Provisions	*25*	**124**	197
Current maturities of long-term debt	*26*	**1,327**	856
Current derivative liabilities	*4(h)*	**12**	2
		4,951	4,276
Non-current liabilities			
Provisions	*25*	**395**	433
Long-term debt	*26*	**11,604**	11,182
Other long-term liabilities	*27*	**736**	688
Deferred income taxes	*9(b)*	**2,107**	2,155
		14,842	14,458
Liabilities		**19,793**	18,734
Owners' equity			
Common equity	*28*	**7,917**	7,672
Non-controlling interest		**19**	—
		7,936	7,672
		$ 27,729	$ 26,406
Contingent Liabilities	*29*		

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

Approved by the Directors:

/s/ "William A. MacKinnon"

William A. MacKinnon
Director

/s/ "R.H. Auchinleck"

R.H. Auchinleck
Director



consolidated statements of changes in owners' equity

	Common equity	
	Equity contributed	Accumulated

(millions)	Note	Common Shares (Note 28) Number of shares	Share capital	Contributed surplus	Retained earnings	other comprehensive income	Total	Non-controlling interest	Total
Balance as at January 1, 2015		609	$ 5,175	$ 141	$ 2,100	$ 38	$ 7,454		
Net income		—	—	—	1,382	—	1,382		
Other comprehensive income	*10*	—	—	—	445	21	466		
Dividends	*12*	—	—	—	(1,011)	—	(1,011)		
Share option award expense	*13(a)*	—	—	1	—	—	1		
Share option award net-equity settlement feature	*13(d)*	1	7	(7)	—	—	—		
Normal course issuer bid purchase of Common Shares		(16)	(133)	—	(502)	—	(635)		
Liability for automatic share purchase plan commitment pursuant to normal course issuer bids for Common Shares	*28(b)*								
Reversal of opening liability		—	15	—	60	—	75		
Recognition of closing liability		—	(14)	—	(46)	—	(60)		
Balance as at December 31, 2015		594	$ 5,050	$ 135	$ 2,428	$ 59	$ 7,672		
Balance as at January 1, 2016		**594**	**$ 5,050**	**$ 135**	**$ 2,428**	**$ 59**	**$ 7,672**	**$ —**	**$ 7,672**
Net income		**—**	**—**	**—**	**1,223**	**—**	**1,223**	**13**	**1,236**
Other comprehensive income	*10*	**—**	**—**	**—**	**—**	**(17)**	**(17)**	**2**	**(15)**
Dividends	*12*	**—**	**—**	**—**	**(1,091)**	**—**	**(1,091)**	**—**	**(1,091)**
Treasury shares acquired	*13(a), 28(b)*	**(1)**	**(45)**	**—**	**—**	**—**	**(45)**	**—**	**(45)**
Shares settled from Treasury	*13(a), 28(b)*	**1**	**44**	**—**	**(3)**	**—**	**41**	**—**	**41**
Share option award net-equity settlement feature	*13(d)*	**—**	**2**	**(2)**	**—**	**—**	**—**	**—**	**—**
Normal course issuer bid purchase of Common Shares		**(4)**	**(36)**	**—**	**(129)**	**—**	**(165)**	**—**	**(165)**
Reversal of opening liability for automatic share purchase plan commitment pursuant to normal course issuer bids for Common Shares	*28(b)*	**—**	**14**	**—**	**46**	**—**	**60**	**—**	**60**
Change in ownership interests of subsidiary	*1(a), 31(b)*	**—**	**—**	**239**	**—**	**—**	**239**	**4**	**243**
Balance as at December 31, 2016		**590**	**$ 5,029**	**$ 372**	**$ 2,474**	**$ 42**	**$ 7,917**	**$ 19**	**$ 7,936**

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

consolidated statements of cash flows

Years ended December 31 (millions)	Note	2016	2015
OPERATING ACTIVITIES			
Net income		**$ 1,236**	$ 1,382
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation and amortization		**2,047**	1,909
Deferred income taxes	*9*	**(42)**	68
Share-based compensation expense, net	*13(a)*	**(2)**	(38)
Net employee defined benefit plans expense	*14(b),(g)*	**93**	118
Employer contributions to employee defined benefit plans		**(71)**	(94)
Other		**29**	(3)
Net change in non-cash operating working capital	*31(a)*	**(71)**	214
Cash provided by operating activities		**3,219**	3,556
INVESTING ACTIVITIES			
Cash payments for capital assets, excluding spectrum licences	*31(a)*	**(2,752)**	(2,522)
Cash payments for spectrum licences		**(145)**	(2,048)
Cash payments for acquisitions		**(90)**	(10)
Real estate joint ventures advances and contributions	*21(c)*	**(33)**	(50)
Real estate joint venture receipts	*21(c)*	**103**	98
Proceeds on dispositions		**3**	52
Other		**(9)**	3
Cash used by investing activities		**(2,923)**	(4,477)
FINANCING ACTIVITIES	*31(b)*		
Dividends paid to holders of Common Shares	*12(a)*	**(1,070)**	(992)
Purchase of Common Shares for cancellation	*28(b)*	**(179)**	(628)
Long-term debt issued	*26*	**5,726**	8,973
Redemptions and repayment of long-term debt	*26*	**(4,843)**	(6,254)
Issue of shares by subsidiary to non-controlling interest	*1(a)*	**294**	—
Other		**(15)**	(15)
Cash provided (used) by financing activities		**(87)**	1,084
CASH POSITION			
Increase in cash and temporary investments, net		**209**	163
Cash and temporary investments, net, beginning of period		**223**	60
Cash and temporary investments, net, end of period		**$ 432**	$ 223
SUPPLEMENTAL DISCLOSURE OF OPERATING CASH FLOWS			
Interest paid		**$ (510)**	$ (458)
Interest received		**$ 4**	$ 24

Income taxes paid, net	**$ (600)**	$ (256)

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

notes to consolidated financial statements

DECEMBER 31, 2016

TELUS Corporation is one of Canada's largest telecommunications companies, providing a wide range of telecommunications services and products, including wireless and wireline voice and data. Data services include: Internet protocol; television; hosting, managed information technology and cloud-based services; healthcare solutions; and business process outsourcing.

TELUS Corporation was incorporated under the *Company Act* (British Columbia) on October 26, 1998, under the name BCT.TELUS Communications Inc. (BCT). On January 31, 1999, pursuant to a court-approved plan of arrangement under the *Canada Business Corporations Act* among BCT, BC TELECOM Inc. and the former Alberta-based TELUS Corporation (TC), BCT acquired all of the shares of BC TELECOM Inc. and TC in exchange for Common Shares and Non-Voting Shares of BCT, and BC TELECOM Inc. was dissolved. On May 3, 2000, BCT changed its name to TELUS Corporation and in February 2005, TELUS Corporation transitioned under the *Business Corporations Act* (British Columbia), successor to the *Company Act* (British Columbia). TELUS Corporation maintains its registered office at Floor 7, 510 West Georgia Street, Vancouver, British Columbia, V6B 0M3.

The terms "TELUS", "we", "us", "our" or "ourselves" are used to refer to TELUS Corporation and, where the context of the narrative permits or requires, its subsidiaries.

Notes to consolidated financial statements	Page
General application	
1. Summary of significant accounting policies	10
2. Accounting policy developments	19
3. Capital structure financial policies	22
4. Financial instruments	24
Consolidated results of operations focused	
5. Segment information	30
6. Other operating income	31
7. Employee benefits expense	32
8. Financing costs	32
9. Income taxes	33
10. Other comprehensive income	34
11. Per share amounts	34
12. Dividends per share	35
13. Share-based compensation	35
14. Employee future benefits	39
15. Restructuring and other costs	45
Consolidated financial position focused	
16. Accounts receivable	46
17. Property, plant and equipment	46
18. Intangible assets and goodwill	47
19. Leases	50
20. Other long-term assets	51
21. Real estate joint ventures	51
22. Short-term borrowings	54
23. Accounts payable and accrued liabilities	54
24. Advance billings and customer deposits	54
25. Provisions	54
26. Long-term debt	55
27. Other long-term liabilities	58
28. Common Share capital	58
29. Contingent liabilities	59
Other	
30. Related party transactions	62
31. Additional statement of cash flow information	63

notes to consolidated financial statements

1 summary of significant accounting policies

Our consolidated financial statements are expressed in Canadian dollars. The generally accepted accounting principles that we use are International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS-IASB) and Canadian generally accepted accounting principles. The date of our transition to IFRS-IASB was January 1, 2010, and the date of our adoption was January 1, 2011.

Generally accepted accounting principles require that we disclose the accounting policies we have selected in those instances where we have been obligated to choose from among various accounting policies that comply with generally accepted accounting principles. In certain other instances, including those in which no selection among policies is allowed, we are also required to disclose how we have applied certain accounting policies. In the selection and application of accounting policies we consider, among other factors, the fundamental qualitative characteristics of useful financial information, namely relevance and faithful representation. In our assessment, our required accounting policy disclosures are not all equally significant for us, as set out in the accompanying table; their relative significance to us will evolve over time as we do.

These consolidated financial statements for each of the years ended December 31, 2016 and 2015, were authorized by our Board of Directors for issue on February 9, 2017.

	Accounting policy requiring a more significant choice among policies and/or a more significant application of judgment	
Accounting policy	**Yes**	**No**
General application		
(a) Consolidation		X
(b) Use of estimates and judgments	X	
(c) Financial instruments — recognition and measurement		X
(d) Hedge accounting		X
Results of operations focused		
(e) Revenue recognition	X	
(f) Government assistance		X
(g) Cost of acquisition and advertising costs		X
(h) Research and development		X
(i) Depreciation, amortization and impairment	X	
(j) Translation of foreign currencies		X
(k) Income and other taxes	X	
(l) Share-based compensation		X
(m) Employee future benefit plans	X	
Financial position focused		
(n) Cash and temporary investments, net		X
(o) Sales of trade receivables		X
(p) Inventories		X
(q) Property, plant and equipment; intangible assets	X	
(r) Leases		X
(s) Investments		X

(a) Consolidation

Our consolidated financial statements include our accounts and the accounts of all of our subsidiaries, the principal one of which is TELUS Communications Inc., in which we have a 100% equity interest. Currently, through a 100% interest in both the TELUS Communications Company partnership and the TELE-MOBILE COMPANY partnership, TELUS Communications Inc. includes substantially all of our wireless and wireline operations.

Our financing arrangements and those of our wholly-owned subsidiaries do not impose restrictions on inter-corporate dividends.

On a continuing basis, we review our corporate organization and effect changes as appropriate so as to enhance the value of TELUS Corporation. This process can, and does, affect which of our subsidiaries are considered principal subsidiaries at any particular point in time.

During the three-month period ended June 30, 2016, there was a change in our ownership interests in our TELUS International (Cda) Inc. subsidiary, which encompasses our TELUS International operations, from the issuing of shares to Baring Private Equity Asia for approximately $302 million, exclusive of net transaction costs. We continue to control and consolidate this subsidiary, and the shares it issued to Baring Private Equity Asia are accounted for as a 35% non-controlling interest. Associated with this transaction, an amount equal to 35% of the net book value of the subsidiary has been credited to non-controlling interest in our Consolidated statement of changes in owners' equity, and the net balance of the proceeds has been credited to contributed surplus. In connection with the issuance of shares to Baring Private Equity Asia, we have also arranged bank financing in the subsidiary company, as set out in *Note 26(f)*.

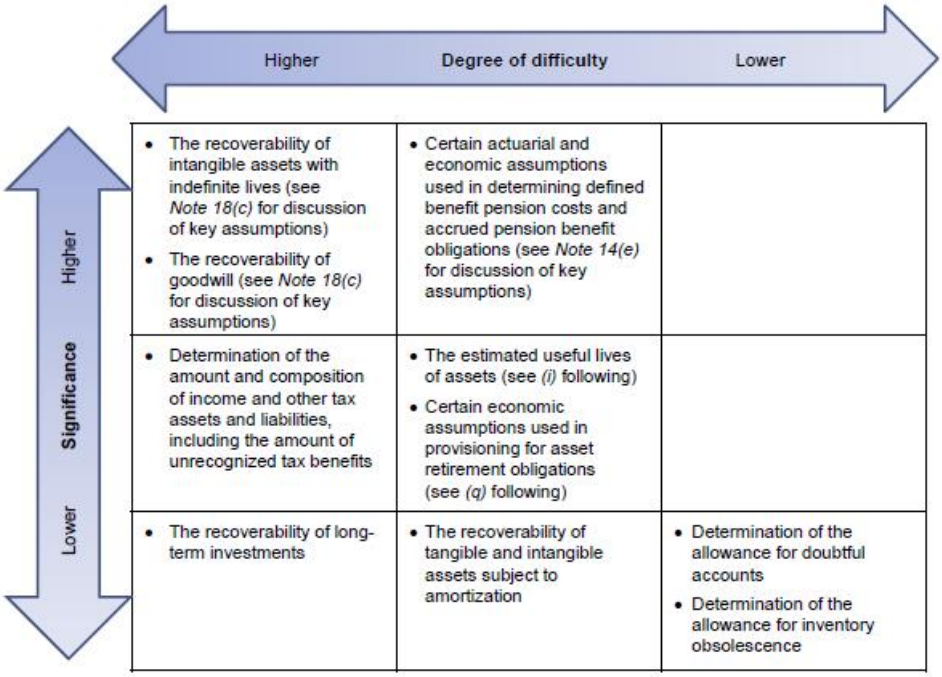
(b) Use of estimates and judgments

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates, assumptions and judgments that affect: the reported amounts of assets and liabilities at the date of the

financial statements; the disclosure of contingent assets and liabilities at the date of the financial statements; and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Estimates

Examples of the significant estimates and assumptions that we make, and their relative significance and degree of difficulty, are as set out in the graphic at right.



Judgments

Examples of our significant judgments, apart from those involving estimation, include the following:

- Assessments about whether line items are sufficiently material to warrant separate presentation in the primary financial statements and, if not, whether they are sufficiently material to warrant separate presentation in the notes to the financial statements. In the normal course, we make changes to our assessments regarding materiality for presentation so that they reflect current economic conditions. Due consideration is given to the view that it is reasonable to expect differing opinions of what is, and is not, material.
- In respect of revenue-generating transactions, we must make judgments that affect the timing of the recognition of revenue. See *Note 2(b)* for significant changes to IFRS-IASB which are not yet effective and have not yet been applied, but which will significantly affect the timing of the recognition of revenue and the classification of our revenues presented as either service or equipment revenues.
  - We must make judgments about when we have satisfied our performance obligations to our customers, satisfied either over a period of time or at a point in time. Service revenues are recognized based upon customers' access to, or usage of, our telecommunications infrastructure; we believe this method faithfully depicts the transfer of the services, and thus the revenues are recognized as the services are made available and/or rendered. We consider our performance obligations arising from the sale of equipment to have been satisfied when the equipment has been delivered to, and accepted by, the end-user customers (see *(e)* following).
  - Principally in the context of revenue-generating transactions involving wireless handsets, we must make judgments about whether third-party re-sellers that deliver equipment to our customers are acting in the transaction as principals or as our agents. Upon due consideration of the relevant indicators, we believe the decision to consider the re-sellers to be acting, solely for accounting purposes, as our agents is more representative of the economic substance of the transactions, as we are the primary obligor to the end-user customers. The effect of this judgment is that no equipment revenue is recognized upon the transfer of inventory to third-party re-sellers.
- The decision to depreciate and amortize any property, plant, equipment and intangible assets that are subject to amortization on a straight-line basis, as we believe that this method reflects the consumption of resources related to the economic lifespan of those assets better than an accelerated method and is more representative of the economic substance of the underlying use of those assets.
- The preparation of financial statements in accordance with generally accepted accounting principles requires management to make judgments that affect the financial statement disclosure of information regularly reviewed by our chief operating decision-maker used to make resource allocation decisions and to assess performance (segment information, *Note 5*). A significant judgment we make is in respect of distinguishing between our wireless and

notes to consolidated financial statements

wireline operations and cash flows, such distinction having been significantly affected by the convergence and integration of our wireless and wireline telecommunications infrastructure technology and operations.

Through December 31, 2015, our judgment was that our wireless and wireline telecommunications infrastructure technology and operations had not experienced sufficient convergence to objectively make their respective operations and cash flows practically indistinguishable. The continued build-out of our technology-agnostic fibre-optic infrastructure, in combination with converged edge network technology, has significantly affected this judgment, as has the commercialization of fixed-wireless solutions.

It has become increasingly impractical to objectively distinguish between our wireless and wireline operations and cash flows, and the assets from which those cash flows arise. Our judgment as to whether these operations can continue to be judged to be individual components of the business and discrete operating segments may change in the future.

The increasing impracticality of objectively distinguishing between our wireless and wireline cash flows, and the assets from which those cash flows arise, is evidence of their increasing interdependence; this may result in the unification of the wireless cash-generating unit and the wireline cash-generating unit as a single cash-generating unit for impairment testing purposes in the future.

- The view that our spectrum licences granted by Innovation, Science and Economic Development Canada will likely be renewed by Innovation, Science and Economic Development Canada; that we intend to renew them; that we believe we have the financial and operational ability to renew them; and thus, they have an indefinite life, as discussed further in *Note 18(b)*.

- In connection with the annual impairment testing of intangible assets with indefinite lives and goodwill, there are instances in which we must exercise judgment in allocating our net assets, including shared corporate and administrative assets, to our cash-generating units when determining their carrying amounts. These judgments are necessary because of the convergence our wireless and wireline telecommunications infrastructure technology and operations have experienced to date, and because of our continuous development. There are instances in which similar judgments must also be made in respect of future capital expenditures in support of both wireless and wireline operations, which are a component of the determination of recoverable amounts used in the annual impairment testing, as discussed further in *Note 18(c)*.

- In respect of claims and lawsuits, as discussed further in *Note 29(a)*, the determination of whether an item is a contingent liability or whether an outflow of resources is probable and thus needs to be accounted for as a provision.

(c) Financial instruments — recognition and measurement

In respect of the recognition and measurement of financial instruments, we have adopted the following policies:

	Accounting classification				
Financial instrument	**Fair value through net income [1, 2]**	**Loans and receivables**	**Available-for-sale [3]**	**Other financial liabilities**	**Part of a cash flow hedging relationship [3]**
Measured at amortized cost					
Accounts receivable		X			
Construction credit facilities advances to real estate joint ventures		X			
Short-term obligations				X	
Accounts payable				X	
Provisions				X	
Long-term debt				X	
Measured at fair value					
Cash and temporary investments	X				
Long-term investments (not subject to significant influence) [4]			X		
Foreign exchange derivatives	X				X
Share-based compensation derivatives	X				X

(1) Classification includes financial instruments held for trading. Certain qualifying financial instruments that are not required to be classified as held for trading may be classified as held for trading if we so choose.

(2) *Unrealized* changes in the fair values of financial instruments are included in net income.

(3) *Unrealized* changes in the fair values of financial instruments classified as available-for-sale, or the effective portion of *unrealized* changes in the fair values of financial instruments held for hedging, are included in other comprehensive income.

(4) Long-term investments over which we do not have significant influence are classified as available-for-sale. In respect of investments in securities for which the fair values can be reliably measured, we determine the classification on an instrument-by-instrument basis at the time of initial recognition.

- Trade receivables that may be sold to an arm's-length securitization trust are accounted for as loans and receivables. We have selected this classification as the benefits of selecting the available-for-sale classification were not expected to exceed the costs of selecting and

implementing that classification.

- Long-term investments over which we do not have significant influence are accounted for as available-for-sale. We have selected this classification as we believe that it better reflects management's investment intentions.

- Derivatives that are part of an established and documented cash flow hedging relationship are accounted for as held for hedging. We believe that classification as held for hedging results in a better matching of the change in the fair value of the derivative financial instrument with the risk exposure being hedged.

  In respect of hedges of anticipated transactions, which for us may include those related to inventory purchase commitments, hedge gains/losses are included in the cost of the inventory and are expensed when the inventory is sold. We have selected this method as we believe that it results in a better matching of the hedge gains/losses with the risk exposure being hedged.

  Derivatives that are not part of a documented cash flow hedging relationship are accounted for as held for trading and thus are measured at fair value through net income.

- Regular-way purchases or sales of financial assets or financial liabilities (purchases or sales that require actual delivery of financial assets or financial liabilities) are recognized on the settlement date. We have selected this method as the benefits of using the trade date method were not expected to exceed the costs of selecting and implementing that method.

- Transaction costs, other than in respect of items held for trading, are added to the initial fair value of the acquired financial asset or financial liability. We have selected this method as we believe that it results in a better matching of the transaction costs with the periods in which we benefit from the transaction costs.

(d) Hedge accounting

General

We apply hedge accounting to the financial instruments used to: establish designated currency hedging relationships for certain U.S. dollar-denominated future purchase commitments and debt repayments, as set out in *Note 4(d)*; and fix the compensation cost arising from specific grants of restricted stock units, as set out in *Note 4(f)* and further discussed in *Note 13(b)*.

Hedge accounting

The purpose of hedge accounting, in respect of our designated hedging relationships, is to ensure that counterbalancing gains and losses are recognized in the same periods. We have chosen to apply hedge accounting as we believe this is more representative of the economic substance of the underlying transactions.

In order to apply hedge accounting, a high correlation (which indicates effectiveness) is required in the offsetting changes in the values of the financial instruments (the hedging items) used to establish the designated hedging relationships and all, or a part, of the asset, liability or transaction having an identified risk exposure that we have taken steps to modify (the hedged items). We assess the anticipated effectiveness of designated hedging relationships at inception and their actual effectiveness for each reporting period thereafter. We consider a designated hedging relationship to be effective if the following critical terms match between the hedging item and the hedged item: the notional amount of the hedging item and the principal amount of the hedged item; maturity dates; payment dates; and interest rate index (if, and as, applicable). As set out in *Note 4(i)*, any ineffectiveness, such as would result from a difference between the notional amount of the hedging item and the principal amount of the hedged item, or from a previously effective designated hedging relationship becoming ineffective, is reflected in the Consolidated statements of income and other comprehensive income as Financing costs if in respect of long-term debt, as Goods and services purchased if in respect of U.S. dollar-denominated future purchase commitments or as Employee benefits expense if in respect of share-based compensation.

Hedging assets and liabilities

In the application of hedge accounting, an amount (the hedge value) is recorded in the Consolidated statements of financial position in respect of the fair value of the hedging items. The net difference, if any, between the amounts recognized in the determination of net income and the amounts necessary to reflect the fair value of the designated cash flow hedging items recorded in the Consolidated statements of financial position is recognized as a component of Other comprehensive income, as set out in *Note 10*.

In the application of hedge accounting to the compensation cost arising from share-based compensation, the amount recognized in the determination of net income is the amount that counterbalances the difference between the quoted market price of our Common Shares at the statement of financial position date and the price of our Common Shares in the hedging items.

(e) Revenue recognition

General

We earn the majority of our revenues (wireless: network revenues (voice and data); wireline: data revenues (which include: Internet protocol; television; hosting, managed information technology and cloud-based services; business process outsourcing; and certain healthcare solutions) and voice revenues) from access to, and usage of, our telecommunications infrastructure. The majority of the balance of our revenues (wireless equipment and other) arises from providing services and products facilitating access to, and usage of, our telecommunications infrastructure.

We offer complete and integrated solutions to meet our customers' needs. These solutions may involve deliveries of multiple services and products that occur at different points in time and/or over different periods of time; as referred to in *(b)*, this is a significant judgment for us. As appropriate, these multiple element arrangements are separated into their component accounting units, consideration is measured and allocated among the accounting units based upon their relative fair values (derived using Company-specific objective evidence) and then our relevant revenue recognition policies are applied to the accounting units. (We estimate that more than two-thirds of our revenues arise from multiple element arrangements.) A limitation cap restricts the consideration allocated to services or products currently transferred in multiple element arrangements to an amount that is not contingent upon either delivering additional items or meeting other specified performance conditions. Our view is that the limitation cap results in a faithful depiction of the transfer of services and products, as it reflects the telecommunications industry's generally accepted understanding of the transfer of services and products, while also reflecting the related cash flows; however, a new revenue accounting standard, which has not yet been applied and must be adopted by January 1, 2018, prohibits the use of a limitation cap, as discussed further in *Note 2*.

When we receive no identifiable, separable benefit for consideration given to a customer (*e.g.* discounts and rebates), the consideration is recorded as a reduction of revenue rather than as an expense.

Multiple contracts with a single customer are normally accounted for as separate arrangements. In instances where multiple contracts are entered into with a customer in a short period of time, the contracts are reviewed as a group to ensure that, as with multiple element arrangements, their relative fair values are appropriate.

Lease accounting is applied to an accounting unit if it conveys to a customer the right to use a specific asset but does not convey the risks and/or benefits of ownership.

Our revenues are recorded net of any value-added and/or sales taxes billed to the customer concurrent with a revenue-generating transaction.

Voice and data

We recognize revenues on an accrual basis and include an estimate of revenues earned but unbilled. Wireless and wireline service revenues are recognized based upon access to, and usage of, our telecommunications infrastructure and upon contract fees.

Advance billings are recorded when billing occurs prior to provision of the associated services; such advance billings are recognized as revenue in the period in which the services are provided. Similarly, and as appropriate, upfront customer activation and connection fees are deferred and recognized over the average expected term of the customer relationship.

We use the liability method of accounting for the amounts of our quality of service rate rebates that arise from the jurisdiction of the Canadian Radio-television and Telecommunications Commission (CRTC).

The CRTC has established a mechanism to subsidize local exchange carriers, such as ourselves, that provide residential basic telephone service to high cost serving areas. The CRTC has determined the per network access line/per band subsidy rate for all local exchange carriers. We recognize the subsidy on an accrual basis by applying the subsidy rate to the number of residential network access lines we provide in high cost serving areas, as further discussed in *Note 6*. Differences, if any, between interim and final subsidy rates set by the CRTC are accounted for as a change in estimate in the period in which the CRTC finalizes the subsidy rate.

Other and wireless equipment

We recognize product revenues, including amounts related to wireless handsets sold to re-sellers and customer premises equipment, when the products are both delivered to and accepted by the end-user customers irrespective of which supply channel delivers the product. With respect to wireless handsets sold to re-sellers, we consider ourselves to be the principal and primary obligor to the end-user customers. Revenues from operating leases of equipment are recognized on a systematic and rational basis (normally a straight-line basis) over the term of the lease.

Non-high cost serving area deferral account

In an effort to foster competition for residential basic service in non-high cost serving areas, the concept of a deferral account mechanism was introduced by the CRTC in 2002 as an alternative to mandating price reductions. We use the

liability method of accounting for the deferral account. We discharge the deferral account liability by undertaking qualifying actions. We recognize the amortization (over a period no longer than three years) of a proportionate share of the deferral account as qualifying actions are completed. Such amortization is included as a component of government assistance in Other operating income, as set out in *Note 6*.

(f) Government assistance

We recognize government assistance amounts on an accrual basis as the subsidized services are provided or as the subsidized costs are incurred. As set out in *Note 6*, government assistance amounts are included in the Consolidated statements of income and other comprehensive income as Other operating income.

(g) Cost of acquisition and advertising costs

The total cost of wireless equipment sold to customers and any commissions and advertising and promotion costs related to initial customer acquisition are expensed as incurred; the cost of equipment we own that is situated at customers' premises and associated installation costs are capitalized as incurred. Costs of acquiring customers that are expensed are included in the Consolidated statements of income and other comprehensive income as a component of Goods and services purchased, with the exception of amounts paid to our employees, which are included as Employee benefits expense. Costs of advertising production, advertising airtime and advertising space are expensed as incurred.

See *Note 2(b)* for significant changes to IFRS-IASB that are not yet effective and have not yet been applied, but will significantly affect the timing of recognition of costs of acquiring customers.

(h) Research and development

Research and development costs are expensed except for cases in which development costs meet certain identifiable criteria for capitalization. Capitalized development costs are amortized over the life of the related commercial production, or in the case of serviceable property, plant and equipment, are included in the appropriate property group and are depreciated over its estimated useful life.

(i) Depreciation, amortization and impairment

Depreciation and amortization

Assets are depreciated on a straight-line basis over their estimated useful lives as determined by a continuing program of asset life studies. Depreciation includes amortization of assets under finance leases and amortization of leasehold improvements. Leasehold improvements are normally amortized over the lesser of their expected average service life or the term of the lease. Intangible assets with finite lives (intangible assets subject to amortization) are amortized on a straight-line basis over their estimated useful lives, which are reviewed at least annually and adjusted as appropriate. As referred to in *(b)*, the use of a straight-line basis of depreciation and amortization is a significant judgment for us.

Estimated useful lives for the majority of our property, plant and equipment subject to depreciation are as follows:

	Estimated useful lives [1]
Network assets	
Outside plant	17 to 40 years
Inside plant	4 to 17 years
Wireless site equipment	5 to 10 years
Balance of depreciable property, plant and equipment	3 to 40 years

(1) The composite depreciation rate for the year ended December 31, 2016, was 5.0% (2015 — 4.8%). The rate is calculated by dividing depreciation expense by an average of the gross book value of depreciable assets over the reporting period.

Estimated useful lives for the majority of our intangible assets subject to amortization are as follows:

	Estimated useful lives
Wireline subscriber base	25 years
Customer contracts, related customer relationships and leasehold interests	6 to 10 years
Software	2 to 7 years
Access to rights-of-way and other	5 to 30 years

Impairment — general

Impairment testing compares the carrying values of the assets or cash-generating units being tested with their recoverable amounts (the recoverable amount being the greater of an asset's or a cash-generating unit's value in use or its fair value less costs to sell); as referred to in *(b)*, this is a significant estimate for us. Impairment losses are immediately recognized to the extent that the carrying value of an asset or cash-generating unit exceeds its recoverable amount. Should the recoverable amounts for impaired assets or cash-generating units subsequently increase, the impairment losses previously recognized (other than in respect of goodwill) may be reversed to the extent that the reversal is not a

result of "unwinding of the discount" and that the resulting carrying values do not exceed the carrying values that would have been the result if no impairment losses had been previously recognized.

Impairment — property, plant and equipment; intangible assets subject to amortization

The continuing program of asset life studies considers such items as the timing of technological obsolescence, competitive pressures and future infrastructure utilization plans; these considerations could also indicate that the carrying value of an asset may not be recoverable. If the carrying value of an asset were not considered recoverable, an impairment loss would be recorded.

Impairment — intangible assets with indefinite lives; goodwill

The carrying values of intangible assets with indefinite lives and goodwill are periodically tested for impairment. The frequency of the impairment testing is generally the reciprocal of the stability of the relevant events and circumstances, but intangible assets with indefinite lives and goodwill must, at a minimum, be tested annually; we have selected December as our annual test date.

We assess our intangible assets with indefinite lives by comparing the recoverable amounts of our cash-generating units to the carrying values of our cash-generating units (including the intangible assets with indefinite lives allocated to a cash-generating unit, but excluding any goodwill allocated to a cash-generating unit). To the extent that the carrying value of a cash-generating unit (including the intangible assets with indefinite lives allocated to the cash-generating unit, but excluding any goodwill allocated to the cash-generating unit) exceeds its recoverable amount, the excess amount would be recorded as a reduction in the carrying value of intangible assets with indefinite lives.

Subsequent to assessing intangible assets with indefinite lives, we assess goodwill by comparing the recoverable amounts of cash-generating units to their carrying values (including the intangible assets with indefinite lives and the goodwill allocated to a cash-generating unit). To the extent that the carrying value of the cash-generating unit (including the intangible assets with indefinite lives and the goodwill allocated to the cash-generating unit) exceeds its recoverable amount, the excess amount would first be recorded as a reduction in the carrying value of goodwill and any remainder would be recorded as a reduction in the carrying values of the assets of the cash-generating unit on a pro-rated basis.

(j) Translation of foreign currencies

Trade transactions completed in foreign currencies are translated into Canadian dollars at the rates of exchange prevailing at the time of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the rate of exchange in effect at the statement of financial position date, with any resulting gain or loss recorded in the Consolidated statements of income and other comprehensive income as a component of Financing costs, as set out in *Note 8*. Hedge accounting is applied in specific instances, as further discussed in *(d)* preceding.

We have foreign subsidiaries that do not have the Canadian dollar as their functional currency. Foreign exchange gains and losses arising from the translation of these foreign subsidiaries' accounts into Canadian dollars subsequent to January 1, 2010, are reported as a component of other comprehensive income, as set out in *Note 10*.

(k) Income and other taxes

We follow the liability method of accounting for income taxes; as referred to in *(b)*, this is a significant estimate for us. Under this method, current income taxes are recognized for the estimated income taxes payable for the current year. Deferred income tax assets and liabilities are recognized for temporary differences between the tax and accounting bases of assets and liabilities, and also for any benefits of losses and Investment Tax Credits available to be carried forward to future years for tax purposes that are more likely than not to be realized. The amounts recognized in respect of deferred income tax assets and liabilities are based upon the expected timing of the reversal of temporary differences or usage of tax losses and the application of the substantively enacted tax rates at the time of reversal or usage.

We account for any changes in substantively enacted income tax rates affecting deferred income tax assets and liabilities in full in the period in which the changes are substantively enacted. We account for changes in the estimates of prior year(s) tax balances as estimate revisions in the period in which the changes in estimates arise; we have selected this approach as its emphasis on the statement of financial position is more consistent with the liability method of accounting for income taxes.

Our operations are complex and the related tax interpretations, regulations, legislation and jurisprudence are continually changing. As a result, there are usually some tax matters in question that result in uncertain tax positions. We only recognize the income tax benefit of an uncertain tax position when it is more likely than not that the ultimate determination of the tax treatment of the position will result in that benefit being realized. We accrue an amount for interest charges on current tax liabilities that have not been funded, which would include interest and penalties arising from uncertain tax positions. We include such charges in the Consolidated statements of income and other comprehensive income as a component of Financing costs.

Our research and development activities may be eligible to earn Investment Tax Credits, for which the determination of eligibility is a complex matter. We only recognize Investment Tax Credits when there is reasonable assurance that the ultimate determination of the eligibility of our research and development activities will result in the Investment Tax Credits being received, at which time they are accounted for using the cost reduction method, whereby such credits are deducted from the expenditures or assets to which they relate, as set out in *Note 9(c)*.

(l) Share-based compensation

General

When share-based compensation vests in its entirety at one future point in time (cliff vesting), we recognize the expense on a straight-line basis

over the vesting period. When share-based compensation vests in tranches (graded vesting), we recognize the expense using the accelerated expense attribution method. An estimate of forfeitures during the vesting period is made at the date of grant of such share-based compensation; this estimate is adjusted to reflect actual experience.

Share option awards

A fair value for share option awards is determined at the date of grant and that fair value is recognized in the financial statements. Proceeds arising from the exercise of share option awards are credited to share capital, as are the recognized grant-date fair values of the exercised share option awards.

Share option awards that have a net-equity settlement feature, as set out in *Note 13(d)*, are accounted for as equity instruments. We have selected the equity instrument fair value method of accounting for the net-equity settlement feature as it is consistent with the accounting treatment afforded to the associated share option awards.

Restricted stock units

In respect of restricted stock units without market performance conditions, as set out in *Note 13(b)*, we accrue a liability equal to the product of the number of vesting restricted stock units multiplied by the fair market value of the corresponding Common Shares at the end of the reporting period (unless hedge accounting is applied, as set out in *(d)* preceding). Similarly, we accrue a liability for the notional subset of our restricted stock units with market performance conditions using a fair value determined using a Monte Carlo simulation. The expense for restricted stock units that do not ultimately vest is reversed against the expense that was previously recorded in their respect.

(m) Employee future benefit plans

Defined benefit plans

We accrue amounts for our obligations under employee defined benefit plans and the related costs, net of plan assets. The cost of pensions and other retirement benefits earned by employees is actuarially determined using the accrued benefit method pro-rated on service and management's best estimates of salary escalation and the retirement ages of employees. In the determination of net income, net interest for each plan, which is the product of the plan's surplus (deficit) multiplied by the discount rate, is included as a component of Financing costs, as set out in *Note 8*.

An amount reflecting the effect of differences between the discount rate and the actual rate of return on plan assets is included as a component of employee defined benefit plan re-measurements within Other comprehensive income, as set out in *Note 10* and *Note 14*. We determine the maximum economic benefit available from the plans' assets on the basis of reductions in future contributions to the plans.

On an annual basis, at a minimum, the defined benefit plan key assumptions are assessed and revised as appropriate; as referred to in *(b)*, these are significant estimates for us. When the defined benefit plan key assumptions fluctuate significantly relative to their immediately preceding year-end values, actuarial gains (losses) arising from such significant fluctuations are recognized on an interim basis.

Defined contribution plans

We use defined contribution accounting for the Telecommunication Workers Pension Plan and the British Columbia Public Service Pension Plan, which cover certain of our employees and provide defined benefits to their members. In the absence of any regulations governing the calculation of the share of the underlying financial position and plan performance attributable to each employer-participant, and in the absence of contractual agreements between the plans and the employer-participants related to the financing of any shortfall (or distribution of any surplus), we account for these plans as defined contribution plans in accordance with International Accounting Standard 19, *Employee Benefits*.

(n) Cash and temporary investments, net

Cash and temporary investments, which may include investments in money market instruments that are purchased three months or less from maturity, are presented net of outstanding items, including cheques written but not cleared by the

related banks as at the statement of financial position date. Cash and temporary investments, net, are classified as a liability in the statement of financial position when the total amount of all cheques written but not cleared by the related banks exceeds the amount of cash and temporary investments. When cash and temporary investments, net, are classified as a liability, they may also include overdraft amounts drawn on our bilateral bank facilities, which revolve daily and are discussed further in *Note 22*.

(o) Sales of trade receivables

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.

(p) Inventories

Our inventories consist primarily of wireless handsets, parts and accessories (totalling $266 million (2015 — totalling $319 million)) and communications equipment held for resale. Inventories are valued at the lower of cost and net realizable value, with cost being determined on an average cost basis. Previous write-downs to net realizable value are reversed if there is a subsequent increase in the value of the related inventories. Costs of goods sold for the year ended December 31, 2016, totalled $1,837 million (2015 — $1,806 million).

(q) Property, plant and equipment; intangible assets

General

Property, plant and equipment and intangible assets are recorded at historical cost, which for self-constructed property, plant and equipment includes materials, direct labour and applicable overhead costs. For internally developed, internal-use software, the historical cost recorded includes materials, direct labour and direct labour-related costs. Where property, plant and equipment construction projects are of sufficient size and duration, an amount is capitalized for the cost of funds used to finance construction, as set out in *Note 8*. The rate for calculating the capitalized financing cost is based on our weighted average cost of borrowing experienced during the reporting period.

When we sell property, plant and/or equipment, the net book value is netted against the sale proceeds and the difference, as set out in *Note 6*, is included in the Consolidated statements of income and other comprehensive income as Other operating income.

Asset retirement obligations

Provisions for liabilities, as set out in *Note 25*, are recognized for statutory, contractual or legal obligations, normally when incurred, associated with the retirement of property, plant and equipment (primarily certain items of outside plant and wireless site equipment) when those obligations result from the acquisition, construction, development and/or normal operation of the assets; as referred to in *(b)*, this is a significant estimate for us. The obligations are measured initially at fair value, determined using present value methodology, and the resulting costs are capitalized as a part of the carrying value of the related asset. In subsequent periods, the liability is adjusted for the accretion of discount, for any changes in the market-based discount rate and for any changes in the amount or timing of the underlying future cash flows. The capitalized asset retirement cost is depreciated on the same basis as the related asset and the discount accretion, as set out in *Note 8*, is included in the Consolidated statements of income and other comprehensive income as a component of Financing costs.

(r) Leases

Leases are classified as finance or operating depending upon the terms and conditions of the contracts. See *Note 2* for significant changes to IFRS-IASB that are not yet effective and have not yet been applied, but will significantly affect the timing of the recognition of operating lease expenses and their recognition on the Consolidated statement of financial position, as well as their classification in both the Consolidated statement of income and other comprehensive income and the Consolidated statement of cash flows.

Where we are the lessee, asset values recorded under finance leases are amortized on a straight-line basis over the period of expected use. Obligations recorded under finance leases are reduced by lease payments net of imputed interest.

(s) Investments

We account for our investments in companies over which we have significant influence using the equity method of accounting, whereby the investments are initially recorded at cost and subsequently adjusted to recognize our share of earnings or losses of the investee companies and any earnings distributions received. The excess of the cost of an equity investment over its underlying book value at the date of acquisition, except for goodwill, is amortized over the estimated useful lives of the underlying assets to which the excess cost is attributed.

Similarly, we account for our interests in the real estate joint ventures, discussed further in *Note 21*, using the equity method of accounting. Unrealized gains and losses from transactions with (including contributions to) the real estate joint ventures are deferred in proportion to our remaining interest in the real estate joint ventures.

We account for our other investments as available-for-sale at their fair values unless they are investment securities that do not have quoted market prices in an active market or do not have other clear and objective evidence of fair value. When we do not account for our available-for-sale investments at their fair values, we use the cost basis of accounting, whereby the investments are initially recorded at cost and earnings from those investments are recognized only to the extent received or receivable. The costs of investments sold or the amounts reclassified from other comprehensive income to earnings are determined on a specific-identification basis.

Unless there is a significant or prolonged decline in the value of an available-for-sale investment, the carrying values of available-for-sale investments are adjusted to their estimated fair values, and the amount of any such adjustment is included in the Consolidated statements of income and other comprehensive income as a component of other comprehensive income. When there is a significant or prolonged decline in the value of an investment, the carrying value of any such investment accounted for using the equity, available-for-sale or cost method is reduced to its estimated fair value, and the amount of any such reduction is included in the Consolidated statements of income and other comprehensive income as Other operating income.

2 accounting policy developments

(a) Initial application of standards, interpretations and amendments to standards and interpretations in the reporting period

In January 2016, the International Accounting Standards Board released *Amendments to IAS 7, Statement of Cash Flows* as a part of its Disclosure Initiative. The amendments are required to be applied for years beginning on or after January 1, 2017; however, we have applied them for the year ended December 31, 2016, as set out in *Note 31(b)*, and such application has had no material effect on our financial performance or disclosure.

Annual Improvements to IFRSs 2012-2014 Cycle are required to be applied for years beginning on or after January 1, 2016, and such application has had no effect on our financial performance or disclosure.

(b) Standards, interpretations and amendments to standards not yet effective and not yet applied

- IFRS 9, *Financial Instruments*, is required to be applied for years beginning on or after January 1, 2018. The new standard includes a model for the classification and measurement of financial instruments, a single forward-looking "expected loss" impairment model and a reformed approach to hedge accounting. Based upon current facts and circumstances, we do not expect our financial performance or disclosure to be materially affected by the application of the standard.

- IFRS 15, *Revenue from Contracts with Customers*, is required to be applied for years beginning on or after January 1, 2018, such date reflecting the one-year deferral approved by the International Accounting Standards Board on July 22, 2015. The International Accounting Standards Board and the Financial Accounting Standards Board of the United States worked on this joint project to clarify the principles for the recognition of revenue. The new standard was released in May 2014 and supersedes existing standards and interpretations including IAS 18, *Revenue*. In April 2016, the International Accounting Standards Board issued *Clarifications to IFRS 15, Revenue from Contracts with Customers*, clarifying application of some of the more complex aspects of the standard. We are currently assessing the impacts and transition provisions of the new standard; however, we expect that we will apply the standard retrospectively to prior reporting periods, subject to permitted and elected practical expedients.

  The effects of the new standard and the materiality of those effects will vary by industry and entity. Like many other telecommunications companies, we currently expect to be materially affected by its application, primarily in respect of the timing of revenue recognition, the classification of revenue, the capitalization of costs of obtaining a contract with a customer and possibly the capitalization of the costs of contract fulfilment (as defined by the new standard).

  Revenue — timing of recognition; classification

  The timing of revenue recognition and the classification of our revenues as either service revenues or equipment revenues will be affected, since the allocation of consideration in multiple element arrangements (solutions for our customers that may involve deliveries of multiple services and products that occur at different points in time and/or over different periods of time) will no longer be affected by the current limitation cap methodology.

The effects of the timing of revenue recognition and the classification of revenue are expected to be most pronounced in our wireless segment. Although the measurement of the total revenue recognized over the life of a contract will be largely unaffected by the new standard, the prohibition of the use of the limitation cap methodology will accelerate the recognition of total contract revenue, relative to both the associated cash inflows from customers and our current practice (using the limitation cap methodology). The acceleration of the recognition of contract revenue relative to the associated cash inflows will also result in the recognition of an amount reflecting the resulting difference as a contract asset. Although the underlying transaction economics would not differ, during periods of sustained growth in the number of wireless subscriber connection additions, assuming comparable contract-lifetime per unit cash inflows, revenues would appear to be greater than under the current practice (using the limitation cap methodology). Wireline segment results arising from transactions that include the initial provision of subsidized equipment or promotional pricing plans will be similarly affected.

Costs of contract acquisition; costs of contract fulfilment — timing of recognition

Similarly, the measurement of the total costs of contract acquisition and contract fulfilment over the life of a contract will be unaffected by the new standard, but the timing of recognition will be. The new standard will result in our wireless and wireline segments' costs of contract acquisition and contract fulfilment, to the extent that they are material, being capitalized and subsequently recognized as an expense over the life of a contract on a rational, systematic basis consistent with the pattern of the transfer of goods or services to which the asset relates. Although the underlying transaction economics would not differ, during periods of sustained growth in the number of customer connection additions, assuming comparable per unit costs of contract acquisition and contract fulfilment, absolute profitability measures would appear to be greater than under the current practice (immediately expensing such costs).

Implementation

Our operations and associated systems are complex and our accounting for millions of multi-year contracts with our customers will be affected. Significantly, in order to effect the associated accounting, incremental compilation of historical data will be necessary for the millions of already existing multi-year contracts with our customers that are expected to be in-scope for purposes of transitioning to the new standard. Our current estimate of the time and effort necessary to develop and implement the accounting policies, estimates, judgments and processes (including critical incremental requirements of our information technology systems) we will need to have in place in order to

comply with the new standard extends into mid/late-2017.

Once we have developed and implemented the necessary accounting policies, estimates, judgments and processes, we will commence the incremental compilation of historical data, as well as the accounting for that data, which is necessary to transition to, and to make reasonable quantitative estimates (which will also be subject to associated incremental internal controls over financial reporting) of the effects of, the new standard. As a result, at this time, it is not possible to make reasonable quantitative estimates of the effects of the new standard, and we may not be able to do so prior to completing our December 31, 2017, annual consolidated financial statements.

Illustrative example

To assist with understanding how the fundamental timing of recognition and classification of transactions will be affected by the new standard, we have developed the following illustrative example to contrast the currently expected effects of applying the new standard on certain primary financial statement line items for a single consumer postpaid wireless 24-month contract (handset and service) involving a re-seller with the effects of applying our current accounting policies.

The currently expected effects of the new standard reflected in **the following illustrative example should be used with caution** and, although reasonably depicting a representative transaction, they cannot be extrapolated to our population of contracts with customers as:

- changes in underlying assumptions and amounts are not linear — relative to this illustrative example, the dynamic maturity profile of our wireless subscriber base (which currently reflects, among other things, seasonal fluctuations of contract inceptions), the dynamic mix of gross subscriber additions and retention units (gross subscriber additions and retention units combined were approximately 3.5 million in each of the years ended December 31, 2016 and 2015), the dynamic pricing profile of our wireless subscriber base (which currently reflects, among other things, the choices made by customers, both initial and ongoing, in respect of handsets, rate plans and levels of device subsidy), and the dynamic choice of distribution channel made by the customer (due to costs of contract acquisition currently varying by distribution channel), are, in combination, all very significant factors in quantifying how the timing of recognition and classification changes arising from the new standard will affect us and these factors have not been reflected in this illustrative example;

- the effects of retrospective application upon adoption are not components of the illustrative example;

- the illustrative example represents only one of the many ways in which we can provide our customers with access to, and usage of, our telecommunications infrastructure; and

- the composite ongoing inception, maturation and expiration of millions of multi-year contracts with our customers are expected to somewhat mute the pronounced results of operations timing of recognition effects of a single contract.

	Selected results[1] applying current accounting policies				Selected results[1] applying IFRS 15			
As at, or fiscal years ending, December 31 (single $)	**Fiscal year 1**	**Fiscal year 2**	**Fiscal year 3**	**Total**	**Fiscal year 1**	**Fiscal year 2**	**Fiscal year 3**	**Total**
RESULTS OF OPERATIONS								
OPERATING REVENUES								
Service	$ 80	$ 960	$ 880	$ 1,920	$ 61	$ 731	$ 670	$ 1,462
Equipment	400	—	—	400	858	—	—	858
Revenues arising from contract with customer	480	960	880	2,320	919	731	670	2,320
OPERATING EXPENSES EXCLUDING COSTS OF SERVICE								
Goods and services purchased	990	—	—	990	856	70	64	990
OPERATING INCOME EFFECTS EXCLUDING COSTS OF SERVICE	(510)	960	880	1,330	63	661	606	1,330
Income taxes	(138)	259	238	359	17	178	164	359
NET INCOME EFFECTS EXCLUDING COSTS OF SERVICE	$ (372)	$ 701	$ 642	$ 971	$ 46	$ 483	$ 442	$ 971
RECONCILIATION OF REVENUES RECOGNIZED AND AMOUNTS BILLED TO CUSTOMER								
Revenues recognized	$ 480	$ 960	$ 880	$ 2,320	$ 919	$ 731	$ 670	$ 2,320
Revenues initially recognized but not initially billable and thus initially recognized as contract asset [2]	—	—	—	—	(458)	—	—	(458)
Contract asset [2] amortized and billed to customer	—	—	—	—	19	229	210	458
Total of amounts billed to customer	$ 480	$ 960	$ 880	$ 2,320	$ 480	$ 960	$ 880	$ 2,320

FINANCIAL POSITION EFFECTS OF DIFFERENCES ARISING FROM ITEMS NOTED ABOVE			
ASSETS			
Current assets			
Contract assets [2]	$ 229	$ 210	$ —
Prepaid expenses and other	70	64	—
Non-current assets			
Contract assets	210	—	—
Other long-term assets	64	—	—
	$ 573	$ 274	$ —

LIABILITIES AND OWNERS' EQUITY			
Current liabilities			
Advance billings and customer deposits [2]	$ —	$ —	$ —
Non-current liabilities			
Deferred income taxes	155	74	—
OWNERS' EQUITY			
Common Share equity	418	200	—
	$ 573	$ 274	$ —

CASH FLOW EFFECTS OF ITEMS NOTED ABOVE												
OPERATING ACTIVITIES												
Net income effects excluding costs of service	$ (372)	$ 701	$ 642	$ 971	$ 46	$ 483	$ 442	$ 971				
Adjustments to reconcile to effects on cash (used) provided by operating activities												
Deferred income taxes	(138)	259	238	359	17	178	164	359				
Change in operating working capital	—	—	—	—	(573)	299	274	—				
Effects on cash (used) provided by operating activities	$ (510)	$ 960	$ 880	$ 1,330	$ (510)	$ 960	$ 880	$ 1,330				

(1) This illustrative example of a single consumer postpaid wireless 24-month contract (handset and service) involving a re-seller is intended to illustrate the differences between our current accounting policies and the accounting effects we currently expect upon application of the new standard; the accounting for the associated costs of service, such as network operating expenses, would not differ upon application of the new standard and thus the associated costs of service have been excluded from this illustrative example. This illustrative example is based upon an actual November 30, 2016, offering of ours.

This illustrative example reflects the commencement of the contract on December 1 of the first fiscal year and running through to expiry, and ending 24 months later on, November 30 of the third fiscal year. Reflected in this illustrative example is that the minimum transaction price (minimum spend amount) is determinable and is thus used as the contract's transaction price.

Goods and services purchased, in this illustrative example, include both the cost of the handset sold($850) and contract acquisition costs (which, in this illustrative example, are commissions ($140)).

To simplify this illustrative example:

- no provision has been made for any value-added or sales taxes billed to the customer concurrent with the revenue generating transactions;
- an income tax rate of 27% has been used for all fiscal years and all income taxes are considered deferred; and
- amounts billed to customer are received when due; our monthly recurring charges would be $80 per month over the term of the contract and would be incremental to an initial payment of $400 due at contract inception.

(2) The new standard requires that a contract's contract asset and contract liability (advance billings and customer billings) be presented net on the statement of financial position. To simplify this illustrative example, such statement of financial position line item reclassification has not been effected.

- In January 2016, the International Accounting Standards Board released IFRS 16, *Leases*, which is required to be applied for years beginning on or after January 1, 2019, and which supersedes IAS 17, *Leases*; earlier application is allowed, but not before the application of IFRS 15, *Revenue from Contracts with Customers*. The International Accounting Standards Board and the Financial Accounting Standards Board of the United States worked together to modify the accounting for leases, generally by eliminating lessees' classification of leases as either operating leases or finance leases and, for IFRS-IASB, introducing a single lessee accounting model.

The most significant effect of the new standard will be the lessee's recognition of the initial present value of unavoidable future lease payments as lease assets and lease liabilities on the statement of financial position, including those for most leases that would be currently accounted for as operating leases. Both leases with durations of 12 months or less and leases for low-value assets may be exempted.

The measurement of the total lease expense over the term of a lease will be unaffected by the new standard. However, the new standard will result in the timing of lease expense recognition being accelerated for leases which would be currently accounted for as operating leases; the International Accounting Standards Board expects that this effect may be muted by a lessee having a portfolio of leases with varying maturities and lengths of term. The presentation on the statement of income and other comprehensive income required by the new standard will result in most lease expenses being presented as amortization of lease assets and financing costs arising from lease liabilities rather than as a part of goods and services purchased, thus reported operating income would be higher under the new standard.

Relative to the results of applying the current standard, although the actual cash flows will be unaffected, the lessee's statement of cash flows will reflect increases in cash flows from operating activities offset equally by decreases in cash flows from financing activities. This is due to the payment of the "principal" component of leases that would be currently accounted for as operating leases being presented as a cash flow use within financing activities under the new standard.

We are currently assessing the impacts and transition provisions of the new standard; however, we expect that we will apply the standard retrospectively to prior reporting periods, subject to permitted and elected practical expedients; our current intention is to apply the new standard concurrent with our initial application of IFRS 15, *Revenue from Contracts with Customers*. Our current estimate of the time and effort necessary to develop and implement the accounting policies, estimates and processes (including incremental requirements of our information technology systems) we will need to have in place in order to comply with the new standard extends into late 2017. We expect

that our Consolidated statement of financial position will be materially affected, as will those financial metrics related to both debt and results of operations; however, at this time it is not possible to make reasonable quantitative estimates of the effects of the new standard.

3 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 equity (excluding accumulated other comprehensive income), long-term debt (including long-term credit facilities, commercial paper backstopped by long-term credit facilities and any hedging assets or liabilities associated with long-term debt items, net of amounts recognized in accumulated other comprehensive income), cash and temporary investments, and short-term borrowings arising from 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 adjust the amount of dividends paid to holders of Common Shares, purchase Common Shares for cancellation pursuant to normal course issuer bids, issue new shares, issue new debt, issue new debt to replace existing debt with different characteristics and/or increase or decrease the amount of trade receivables sold to an arm's-length securitization trust.

We monitor capital utilizing a number of measures, including: net debt to earnings before interest, income taxes, depreciation and amortization (EBITDA*) — excluding restructuring and other costs; and dividend payout ratios.

Net debt to EBITDA — excluding restructuring and other costs is calculated as net debt at the end of the period divided by 12-month trailing EBITDA — excluding restructuring and other costs. This measure, historically, is substantially similar to the leverage ratio covenant in our credit facilities. Net debt, EBITDA — excluding restructuring and other costs and adjusted net earnings are measures that do not have any standardized meanings prescribed by IFRS-IASB and are therefore unlikely to be comparable to similar measures presented by other companies. The calculation of these measures is as set out in the following table. Net debt is one component of a ratio used to determine compliance with debt covenants.

The dividend payout ratio presented is a historical measure calculated as the sum of the last four quarterly dividends declared per Common Share, as recorded in the financial statements, divided by the sum of basic earnings per share for the most recent four quarters for interim reporting periods (divided by annual basic earnings per share if the reported amount is in respect of a fiscal year). The dividend payout ratio of adjusted net earnings presented, also a historical measure, differs in that it excludes the gain on exchange of wireless spectrum licences, net gains and equity income from real estate joint ventures, long-term debt prepayment premium and income tax-related adjustments.

During 2016, our financial objectives, which are reviewed annually and which were unchanged from 2015, included the financial objectives set out in the following table. We believe that our financial objectives are supportive of our long-term strategy.

As at, or for the 12-month periods ended, December 31 ($ in millions)	Objective	2016	2015
Components of debt and coverage ratios			
Net debt [1]		**$ 12,652**	$ 11,953
EBITDA — excluding restructuring and other costs [2]		**$ 4,708**	$ 4,488
Net interest cost [3]		**$ 566**	$ 465
Debt ratio			
Net debt to EBITDA — excluding restructuring and other costs	2.00 – 2.50 [4]	**2.69**	2.66
Coverage ratios			
Earnings coverage [5]		**4.0**	4.8
EBITDA — excluding restructuring and other costs interest coverage [6]		**8.3**	9.7
Other measures			
Dividend payout ratio of adjusted net earnings [7]		**77%**	73%
Dividend payout ratio	65%–75% [8]	**89%**	73%

(1) Net debt is calculated as follows:

As at December 31	Note	2016	2015
Long-term debt	*26*	**$ 12,931**	$ 12,038
Debt issuance costs netted against long-term debt		**67**	52
Derivative (assets) liabilities, net		**20**	(14)
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)		**(34)**	—
Cash and temporary investments, net		**(432)**	(223)
Short-term borrowings	*22*	**100**	100
Net debt		**$ 12,652**	$ 11,953

(2) EBITDA — excluding restructuring and other costs is calculated as follows:

Years ended December 31	Note	2016	2015
EBITDA	*5*	**$ 4,229**	$ 4,262
Restructuring and other costs	*15*	**479**	226
EBITDA — excluding restructuring and other costs		**$ 4,708**	$ 4,488

(3) Net interest cost is defined as financing costs, excluding employee defined benefit plans net interest, recoveries on long-term debt prepayment premium and repayment of debt, calculated on a 12-month trailing basis (expenses recorded for long-term debt prepayment premium, if any, are included in net interest cost).

(4) Our long-term objective range for this ratio is 2.00 – 2.50 times. The ratio as at December 31, 2016, is outside the long-term objective range. In the short term, we may permit, and have permitted, this ratio to go outside the objective range (for long-term investment opportunities), but will endeavour to return this ratio to within the objective range in the medium term, as we believe that this range is supportive of our long-term strategy. We are in compliance with our credit facilities leverage ratio covenant, which states that we may not permit our net debt to operating cash flow ratio to exceed 4.00:1.00 (see *Note 26(d)*); the calculation of the debt ratio is substantially similar to the calculation of the leverage ratio covenant in our credit facilities.

(5) Earnings coverage is defined as net income before borrowing costs and income tax expense, divided by borrowing costs (interest on long-term debt; interest on short-term borrowings and other; long-term debt prepayment premium), and adding back capitalized interest.

* EBITDA does not have any standardized meaning prescribed by IFRS-IASB and is therefore unlikely to be comparable to similar measures presented by other issuers; we define EBITDA as operating revenues less goods and services purchased and employee benefits expense. We have issued guidance on, and report, EBITDA because it is a key measure that management uses to evaluate the performance of our business, and it is also utilized in measuring compliance with certain debt covenants.

(6) EBITDA — excluding restructuring and other costs interest coverage is defined as EBITDA — excluding restructuring and other costs, divided by net interest cost. This measure is substantially similar to the coverage ratio covenant in our credit facilities.

(7) Adjusted net earnings attributable to Common Shares is calculated as follows:

12-month periods ended December 31	2016	2015
Net income attributable to Common Shares	**$ 1,223**	$ 1,382
Gain on exchange of wireless spectrum licences, after income taxes	**(13)**	—
Gain and net equity income related to real estate redevelopment project, after income taxes	**(16)**	—
Business acquisition-related provisions, after income taxes	**15**	—
Immediately vesting transformative compensation expense, after income taxes	**224**	—
Income tax-related adjustments	**(17)**	1
Adjusted net earnings attributable to Common Shares	**$ 1,416**	$ 1,383

(8) Our target guideline for the dividend payout ratio is 65%—75% of sustainable earnings on a prospective basis; we estimate that we will be within our target guideline on a prospective basis.

Net debt to EBITDA — excluding restructuring and other costs was 2.69 times as at December 31, 2016, up from 2.66 one year earlier. The increase in net debt increased the ratio by 0.16, which was largely offset by growth in EBITDA — excluding restructuring and other costs, which decreased the ratio by 0.13. The earnings coverage ratio for the twelve-month period ended December 31, 2016, was 4.0 times, down from 4.8 times one year earlier. Higher borrowing costs reduced the ratio by 0.3 and lower income before borrowing costs and income taxes reduced the ratio by 0.5. The EBITDA — excluding restructuring and other costs interest coverage ratio for the twelve-month period ended December 31, 2016, was 8.3 times, down from 9.7 times one year earlier. Growth in EBITDA — excluding restructuring and other costs increased the ratio by 0.4, while an increase in net interest costs reduced the ratio by 1.8.

4 financial instruments

(a) Risks — overview

Our financial instruments, and the nature of certain risks to which they may be subject, are as set out in the following table.

	Risks				
			Market risks		
Financial instrument	Credit	Liquidity	Currency	Interest rate	Other price
Measured at amortized cost					
Accounts receivable	X		X		
Construction credit facilities advances to real estate joint venture				X	
Short-term obligations		X	X	X	
Accounts payable		X	X		
Provisions (including restructuring accounts payable)		X	X		X
Long-term debt		X	X	X	

Measured at fair value						
Cash and temporary investments	X			X	X	
Long-term investments (not subject to significant influence) [1]				X		X
Foreign exchange derivatives [2]	X	X		X		
Share-based compensation derivatives [2]	X	X				X

(1) Long-term investments over which we do not have significant influence are measured at fair value if those fair values can be reliably measured.

(2) Use of derivative financial instruments is subject to a policy which requires that no derivative transaction is to be entered into for the purpose of establishing a speculative or leveraged position (the corollary being that all derivative transactions are to be entered into for risk management purposes only) and sets criteria for the creditworthiness of the transaction counterparties.

(b) Credit risk

Excluding credit risk, if any, arising from currency swaps settled on a gross basis, the best representation of our maximum exposure (excluding income tax effects) to credit risk, which is a worst-case scenario and does not reflect results we expect, is as set out in the following table:

As at December 31 (millions)	2016	2015
Cash and temporary investments, net	**$ 432**	$ 223
Accounts receivable	**1,471**	1,428
Derivative assets	**17**	40
	$ 1,920	$ 1,691

Cash and temporary investments

Credit risk associated with cash and temporary investments is managed by ensuring that these financial assets are placed with: governments; major financial institutions that have been accorded strong investment grade ratings by a primary rating agency; and/or other creditworthy counterparties. An ongoing review is performed to evaluate changes in the status of counterparties.

Accounts receivable

Credit risk associated with accounts receivable is inherently managed by the size and diversity of our large customer base, which includes substantially all consumer and business sectors in Canada. We follow a program of credit evaluations of customers and limit the amount of credit extended when deemed necessary.

The following table presents an analysis of the age of customer accounts receivable for which an allowance had not been made as at the dates of the Consolidated statements of financial position. As at December 31, 2016, the weighted average age of customer accounts receivable was 26 days (2015 — 28 days) and the weighted average age of past-due customer accounts receivable was 61 days (2015 — 62 days). Any late payment charges are levied at an industry-based market or negotiated rate on outstanding non-current customer account balances.

As at December 31 (millions)	Note	2016	2015
Customer accounts receivable, net of allowance for doubtful accounts			
Less than 30 days past billing date		**$ 897**	$ 823
30-60 days past billing date		**176**	208
61-90 days past billing date		**35**	52
More than 90 days past billing date		**55**	64
		$ 1,163	$ 1,147
Customer accounts receivable	*16*	**$ 1,217**	$ 1,199
Allowance for doubtful accounts		**(54)**	(52)
		$ 1,163	$ 1,147

We maintain allowances for potential credit losses related to doubtful accounts. Current economic conditions, historical information, reasons for the accounts being past due and line of business from which the customer accounts receivable arose are all considered when determining whether to make allowances for past-due accounts. The same factors are considered when determining whether to write off amounts charged to the allowance for doubtful accounts against the customer accounts receivable. The doubtful accounts expense is calculated on a specific-identification basis for customer accounts receivable above a specific balance threshold and on a statistically derived allowance basis for the remainder. No customer accounts receivable are written off directly to the doubtful accounts expense.

The following table presents a summary of the activity related to our allowance for doubtful accounts.

Years ended December 31 (millions)	2016	2015
Balance, beginning of period	**$ 52**	$ 44
Additions (doubtful accounts expense)	**58**	55
Net use	**(56)**	(47)

Balance, end of period	**$ 54**	$ 52

Derivative assets (and derivative liabilities)

Counterparties to our share-based compensation cash-settled equity forward agreements and foreign exchange derivatives are major financial institutions that have been accorded investment grade ratings by a primary credit rating agency. The dollar amount of credit exposure under contracts with any one financial institution is limited and counterparties' credit ratings are monitored. We do not give or receive collateral on swap agreements and hedging items due to our credit rating and those of our counterparties. While we are exposed to potential credit losses due to the possible non-performance of our counterparties, we consider this risk remote. Our derivative liabilities do not have credit risk-related contingent features.

(c) Liquidity risk

As a component of our capital structure financial policies, discussed further in *Note 3*, 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 (*Note 22*);
- maintaining bilateral bank facilities (*Note 22*) and syndicated credit facilities (*Note 26(d),(f)*);
- maintaining a commercial paper program (*Note 26(c)*);
- maintaining an in-effect shelf prospectus;
- continuously monitoring forecast and actual cash flows; and

- managing maturity profiles of financial assets and financial liabilities.

Our debt maturities in future years are as disclosed in *Note 26(g)*. As at December 31, 2016, we could offer $2.2 billion of debt or equity securities pursuant to a shelf prospectus that is in effect until April 2018 (2015 — $250 million until December 2016). We believe that our investment grade credit ratings contribute to reasonable access to capital markets.

We closely match the contractual maturities of our derivative financial liabilities with those of the risk exposures they are being used to manage.

The expected maturities of our undiscounted financial liabilities do not differ significantly from the contractual maturities, other than as noted below. The contractual maturities of our undiscounted financial liabilities, including interest thereon (where applicable), are as set out in the following tables:

	Non-derivative						Derivative			
As at December 31, 2016 (millions)	Non-interest bearing financial liabilities	Short-term borrowings [1]	Construction credit facilities commitment (Note 21) [2]	Composite long-term debt: Long-term debt [1] (Note 26)	Composite long-term debt: Currency swap agreement amounts to be exchanged [3] (Receive)	Composite long-term debt: Currency swap agreement amounts to be exchanged [3] Pay	Other	Currency swap agreement amounts to be exchanged (Receive)	Currency swap agreement amounts to be exchanged Pay	Total
2017	$ 1,949	$ 1	$ 93	$ 1,832	$ (634)	$ 634	$ 3	$ (475)	$ 469	$ 3,872
2018	227	102	—	750	(23)	23	—	—	—	1,079
2019	16	—	—	1,498	(23)	23	—	—	—	1,514
2020	9	—	—	1,447	(23)	23	—	—	—	1,456
2021	9	—	—	1,711	(23)	23	—	—	—	1,720
Thereafter	5	—	—	11,584	(930)	921	—	—	—	11,580
Total	$ 2,215	$ 103	$ 93	$ 18,822	$ (1,656)	$ 1,647	$ 3	$ (475)	$ 469	$ 21,221
				Total (*Note 26(g)*)		$ 18,813				

(1) Cash outflows in respect of interest payments on our short-term borrowings, commercial paper and amounts drawn under our credit facilities (if any) have been calculated based upon the interest rates in effect as at December 31, 2016.

(2) The drawdowns on the construction credit facilities are expected to occur as construction progresses through 2018.

(3) The amounts included in undiscounted non-derivative long-term debt in respect of U.S. dollar-denominated long-term debt, and the corresponding amounts in the long-term debt currency swaps receive column, have been determined based upon the currency exchange rates in effect as at December 31, 2016. The hedged U.S. dollar-denominated long-term debt contractual amounts at maturity, in effect, are reflected in the long-term debt currency swaps pay column as gross cash flows are exchanged pursuant to the currency swap agreements.

	Non-derivative						Derivative			
As at December 31, 2015 (millions)	Non-interest bearing financial liabilities	Short-term borrowings [1]	Construction credit facilities commitment (Note 21) [2]	Composite long-term debt: Long-term debt [1] (Note 26)	Composite long-term debt: Currency swap agreement amounts to be exchanged [3] (Receive)	Composite long-term debt: Currency swap agreement amounts to be exchanged [3] Pay	Other	Currency swap agreement amounts to be exchanged (Receive)	Currency swap agreement amounts to be exchanged Pay	Total
2016	$ 1,895	$ 101	$ 131	$ 1,353	$ (256)	$ 242	$ 4	$ (415)	$ 390	$ 3,445
2017	28	—	—	1,174	—	—	9	—	—	1,211
2018	8	—	—	705	—	—	—	—	—	713
2019	6	—	—	1,453	—	—	—	—	—	1,459
2020	6	—	—	1,402	—	—	—	—	—	1,408
Thereafter	6	—	—	12,057	—	—	—	—	—	12,063
Total	$ 1,949	$ 101	$ 131	$ 18,144	$ (256)	$ 242	$ 13	$ (415)	$ 390	$ 20,299
				Total		$ 18,130				

(1) Cash outflows in respect of interest payments on our short-term borrowings, commercial paper and amounts drawn under our credit facilities (if any) have been calculated based upon the interest rates in effect as at December 31, 2015.
(2) The drawdowns on the construction credit facilities are expected to occur as construction progresses through 2018.
(3) The amounts included in undiscounted non-derivative long-term debt in respect of U.S. dollar-denominated long-term debt, and the corresponding amounts in the long-term debt currency swaps receive column, have been determined based upon the currency exchange rates in effect as at December 31, 2015. The hedged U.S. dollar-denominated long-term debt contractual amounts at maturity, in effect, are reflected in the long-term debt currency swaps pay column as gross cash flows are exchanged pursuant to the currency swap agreements.

(d) Currency risk

Our functional currency is the Canadian dollar, but certain routine revenues and operating costs are denominated in U.S. dollars and some inventory purchases and capital asset acquisitions are sourced internationally. The U.S. dollar is the only foreign currency to which we have a significant exposure.

Our foreign exchange risk management includes the use of foreign currency forward contracts and currency options to fix the exchange rates on short-term U.S. dollar-denominated transactions, commitments and commercial paper.

As discussed further in *Note 26(b)* and *(f)*, we are also exposed to currency risk in that the fair value or future cash flows of our U.S. Dollar Notes and our TELUS International (Cda) Inc. credit facility U.S. dollar borrowings could fluctuate because of changes in foreign exchange rates. Currency hedging relationships have been established for the related semi-annual interest payments and the principal payment at maturity in respect of the U.S. Dollar Notes.

(e) Interest rate risk

Changes in market interest rates will cause fluctuations in the fair values or future cash flows of temporary investments, construction credit facility advances made to the real estate joint venture, short-term obligations, long-term debt and interest rate swap derivatives.

When we have temporary investments, they have short maturities and fixed interest rates and as a result, their fair values will fluctuate with changes in market interest rates; absent monetization prior to maturity, the related future cash flows will not change due to changes in market interest rates.

If the balance of short-term investments includes dividend-paying equity instruments, we could be exposed to interest rate risk.

Due to the short-term nature of the applicable rates of interest charged, the fair value of the construction credit facilities advances made to the real estate joint venture is not materially affected by changes in market interest rates; associated cash flows representing interest payments will be affected until such advances are repaid.

As short-term obligations arising from bilateral bank facilities, which typically have variable interest rates, are rarely outstanding for periods that exceed one calendar week, interest rate risk associated with this item is not material.

Short-term borrowings arising from the sales of trade receivables to an arm's-length securitization trust are fixed-rate debt. Due to the short maturities of these borrowings, interest rate risk associated with this item is not material.

All of our currently outstanding long-term debt, other than commercial paper and amounts drawn on our credit facilities (*Note 26(d), (f)*), is fixed-rate debt. The fair value of fixed-rate debt fluctuates with changes in market interest rates; absent early redemption, the related future cash flows will not change. Due to the short maturities of commercial paper, its fair value is not materially affected by changes in market interest rates, but the associated cash flows representing interest payments may be if the commercial paper is rolled over.

Amounts drawn on our short-term and long-term credit facilities will be affected by changes in market interest rates in a manner similar to commercial paper.

(f) Other price risk

Long-term investments

We are exposed to equity price risk arising from investments classified as available-for-sale. Such investments are held for strategic rather than trading purposes.

Share-based compensation derivatives

We are exposed to other price risk arising from cash-settled share-based compensation (appreciating Common Share prices increase both the expense and the potential cash outflow). Certain cash-settled equity swap agreements have been entered into that fix the cost associated with our restricted stock units (*Note 13(b)*).

(g) Market risks

Net income and other comprehensive income for the years ended December 31, 2016 and 2015, could have varied if the Canadian dollar: U.S. dollar exchange rate and our Common Share price varied by reasonably possible amounts from their actual statement of financial position date amounts.

The sensitivity analysis of our exposure to currency risk at the reporting date has been determined based upon a hypothetical change taking place at the relevant statement of financial position date. The U.S. dollar-denominated balances and derivative financial instrument notional amounts as at the statement of financial position dates have been used in the calculations.

The sensitivity analysis of our exposure to other price risk arising from share-based compensation at the reporting date has been determined based upon a hypothetical change taking place at the relevant statement of financial position date. The relevant notional number of Common Shares at the statement of financial position date, which includes those in the cash-settled equity swap agreements, has been used in the calculations.

Income tax expense, which is reflected net in the sensitivity analysis, reflects the applicable statutory income tax rates for the reporting periods.

Years ended December 31 (increase (decrease) in millions)	Net income 2016	Net income 2015	Other comprehensive income 2016	Other comprehensive income 2015	Comprehensive income 2016	Comprehensive income 2015
Reasonably possible changes in market risks [1]						
10% change in Cdn.$: U.S.$ exchange rate						
Canadian dollar appreciates	**$ (1)**	$ (25)	**$ (4)**	$ (8)	**$ (5)**	$ (33)
Canadian dollar depreciates	**$ 1**	$ 25	**$ 6**	$ 8	**$ 7**	$ 33
25% [2] change in Common Share price [3]						
Price increases	**$ (8)**	$ (9)	**$ 16**	$ 12	**$ 8**	$ 3
Price decreases	**$ 8**	$ 5	**$ (16)**	$ (12)	**$ (8)**	$ (7)

(1) These sensitivities are hypothetical and should be used with caution. Changes in net income and/or other comprehensive income generally cannot be extrapolated because the relationship of the change in assumption to the change in net income and/or other comprehensive income may not be linear. In this table, the effect of a variation in a particular assumption on the amount of net income and/or other comprehensive income is calculated without changing any other factors; in reality, changes in one factor may result in changes in another, which might magnify or counteract the sensitivities.

The sensitivity analysis assumes that we would realize the changes in exchange rates; in reality, the competitive marketplace in which we operate would have an effect on this assumption.

No consideration has been made for a difference in the notional number of Common Shares associated with share-based compensation awards made during the reporting period that may have arisen due to a difference in the Common Share price.

(2) To facilitate ongoing comparison of sensitivities, a constant variance of approximate magnitude has been used. Reflecting a twelve-month data period and calculated on a monthly basis, the volatility of our Common Share price as at December 31, 2016, was 13.1% (2015 — 14.1%).

(3) The hypothetical effects of changes in the price of our Common Shares are restricted to those which would arise from our share-based compensation awards that are accounted for as liability instruments and the associated cash-settled equity swap agreements.

(h) Fair values

General

The carrying values of cash and temporary investments, accounts receivable, short-term obligations, short-term borrowings, accounts payable and certain provisions (including restructuring accounts payable) approximate their fair values due to the immediate or short-term maturity of these financial instruments. The fair values are determined directly by reference to quoted market prices in active markets.

The carrying values of our investments accounted for using the cost method do not exceed their fair values. The fair values of our investments accounted for as available-for-sale are based on quoted market prices in active markets or other clear and objective evidence of fair value.

The fair value of our long-term debt is based on quoted market prices in active markets.

The fair values of the derivative financial instruments we use to manage our exposure to currency risks are estimated based upon quoted market prices in active markets for the same or similar financial instruments or on the current rates offered to us for financial instruments of the same maturity, as well as discounted future cash flows determined using current rates for similar financial instruments of similar maturities subject to similar risks (such fair value estimates being largely based on the Canadian dollar: U.S. dollar forward exchange rate as at the statement of financial position dates).

The fair values of the derivative financial instruments we use to manage our exposure to increases in compensation costs arising from certain forms of share-based compensation are based upon fair value estimates of the related cash-settled equity forward agreements provided by the counterparty to the transactions (such fair value estimates being largely based on our Common Share price as at the statement of

financial position dates).

The financial instruments that we measure at fair value on a recurring basis in periods subsequent to initial recognition and the level within the fair value hierarchy at which they are measured are as set out in the following table.

			Fair value measurements at reporting date using					
	Carrying value		Quoted prices in active markets for identical items (Level 1)		Significant other observable inputs (Level 2)		Significant unobservable inputs (Level 3)	
As at December 31 (millions)	2016	2015	2016	2015	2016	2015	2016	2015
Assets								
Foreign exchange derivatives	**$ 10**	$ 40	**$ —**	$ —	**$ 10**	$ 40	**$ —**	$ —
Share-based compensation derivatives	**7**	—	—	—	**7**	—	**—**	—
Available-for-sale portfolio investments	**62**	30	—	2	**62**	28	**—**	—
	$ 79	$ 70	**$ —**	$ 2	**$ 79**	$ 68	**$ —**	$ —
Liabilities								
Foreign exchange derivatives	**$ 30**	$ —	**$ —**	$ —	**$ 30**	$ —	**$ —**	$ —
Share-based compensation derivatives	**3**	11	—	—	**3**	11	**—**	—
	$ 33	$ 11	**$ —**	$ —	**$ 33**	$ 11	**$ —**	$ —

notes to consolidated financial statements

Derivative

The derivative financial instruments that we measure at fair value on a recurring basis subsequent to initial recognition are as set out in the following table.

			2016		2015	
As at December 31 (millions)	Designation	Maximum maturity date	Notional amount	Fair value and carrying value	Notional amount	Fair value and carrying value
Current Assets [1]						
Derivatives used to manage						
Currency risks arising from U.S. dollar-denominated purchases	HFT [2]	2017	**$ 8**	**$ —**	$ 115	$ 15
Currency risks arising from U.S. dollar-denominated purchases	HFH [3]	2017	**$ 263**	**7**	$ 161	11
Currency risks arising from U.S. dollar revenues	HFT [2]	2017	**$ 4**	**—**	$ 62	—
Changes in share-based compensation costs (*Note 13(b)*)	HFH [3]	2017	**$ 6**	**1**	$ —	—
Currency risks arising from U.S. dollar-denominated long-term debt (*Note 26(b)-(c)*)	HFH [3]	2017	**$ 191**	**3**	$ 243	14
				$ 11		$ 40
Other Long-Term Assets [1]						
Derivatives used to manage						
Changes in share-based compensation costs (*Note 13(b)*)	HFH [3]	2018	**$ 69**	**$ 6**	$ —	$ —
Current Liabilities [1]						
Derivatives used to manage						
Currency risks arising from U.S. dollar-denominated purchases	HFT [2]	2017	**$ —**	**$ —**	$ 31	$ —
Currency risks arising from U.S. dollar-denominated purchases	HFH [3]	2017	**$ 69**	**2**	$ 11	—
Currency risks arising from U.S. dollar revenues	HFT [2]	2017	**$ 124**	**5**	$ 8	—
Changes in share-based compensation costs (*Note 13(b)*)	HFH [3]	2017	**$ 65**	**3**	$ 71	2

Currency risks arising from U.S. dollar-denominated long-term debt (*Note 26(b)-(c)*)	HFH [3]	2017	**$ 422**	**2**	$ —	—
				$ 12		$ 2
Other Long-Term Liabilities [1]						
Derivatives used to manage						
Changes in share-based compensation costs (*Note 13(b)*)	HFH [3]	2017	**$ —**	**$ —**	$ 68	$ 9
Currency risks arising from U.S. dollar-denominated long-term debt (*Note 26(b)-(c)*)	HFH [3]	2027	**$ 1,036**	**21**	$ —	—
				$ 21		$ 9

(1) Derivative financial assets and liabilities are not set off.

(2) Designated as held for trading (HFT) upon initial recognition; hedge accounting is not applied.

(3) Designated as held for hedging (HFH) upon initial recognition (cash flow hedging item); hedge accounting is applied.

Non-derivative

Our long-term debt, which is measured at amortized cost, and the fair value thereof, are as set out in the following table.

	2016		2015	
As at December 31 (millions)	**Carrying value**	**Fair value**	**Carrying value**	**Fair value**
Long-term debt (*Note 26*)	**$ 12,931**	**$ 13,533**	$ 12,038	$ 12,575

(i) Recognition of derivative gains and losses

The following table sets out the gains and losses, excluding income tax effects, on derivative instruments that are classified as cash flow hedging items and their location within the Consolidated statements of income and other comprehensive income. There was no ineffective portion of derivative instruments classified as cash flow hedging items for the periods presented.

	Amount of gain (loss) recognized in other comprehensive income (effective portion) (Note 10)		**Gain (loss) reclassified from other comprehensive income to income (effective portion) (Note 10)**		
				Amount	
Years ended December 31 (millions)	**2016**	**2015**	**Location**	**2016**	**2015**
Derivatives used to manage					
Currency risks arising from U.S. dollar-denominated purchases	**$ (12)**	$ 12	Goods and services purchased	**$ (9)**	$ 2
Changes in share-based compensation costs *(Note 13(b))*	**19**	(15)	Employee benefits expense	**8**	—
Currency risks arising from U.S. dollar-denominated long-term debt (*Note 26(b)-(c)*)	**(54)**	61	Financing costs	**(20)**	61
	$ (47)	$ 58		**$ (21)**	$ 63

The following table sets out the gains and losses arising from derivative instruments that are classified as held for trading and that are not designated as being in a hedging relationship, and their location within the Consolidated statements of income and other comprehensive income.

		Gain (loss) recognized in income on derivatives	
Years ended December 31 (millions)	**Location**	**2016**	**2015**
Derivatives used to manage currency risks	Financing costs	**$ (2)**	$ 10

5 segment information

General

Operating segments are components of an entity that engage in business activities from which they earn revenues and incur expenses (including revenues and expenses related to transactions with the other component(s)), the operating results of which are regularly reviewed by a chief operating decision-maker to make resource allocation decisions and to assess performance. The operating segments that are regularly reported to our Chief Executive Officer (our chief operating decision-maker) are wireless and wireline.

As we do not currently aggregate operating segments, our currently reportable segments are also wireless and wireline. The wireless segment includes network revenues (data and voice) and equipment sales arising from mobile technologies. The wireline segment includes data revenues (which include Internet protocol; television; hosting, managed information technology and cloud-based services; business process outsourcing; and certain healthcare solutions), voice and other telecommunications services revenues (excluding wireless arising from mobile technologies), and equipment sales. Segmentation is based on similarities in technology (mobile versus fixed), the technical expertise required to deliver the service and products, customer characteristics, the distribution channels used and regulatory treatment. Intersegment sales are recorded at the exchange value, which is the amount agreed to by the parties.

The segment information regularly reported to our chief operating decision-maker, and the reconciliations thereof to our revenues and income before income taxes, are as set out in the following table.

Years ended December 31 (millions)	Wireless		Wireline		Eliminations		Consolidated	
	2016	2015	2016	2015	2016	2015	2016	2015
Operating revenues								
External revenues								
Service	**$ 6,569**	$ 6,338	**$ 5,431**	$ 5,252	**$ —**	$ —	**$ 12,000**	$ 11,590
Equipment	**509**	586	**216**	254	**—**	—	**725**	840
Revenues arising from contracts with customers	**7,078**	6,924	**5,647**	5,506	**—**	—	**12,725**	12,430
Other operating income	**37**	9	**37**	63	**—**	—	**74**	72
	7,115	6,933	**5,684**	5,569	**—**	—	**12,799**	12,502
Intersegment revenues	**58**	61	**194**	174	**(252)**	(235)	**—**	—
	$ 7,173	$ 6,994	**$ 5,878**	$ 5,743	**$ (252)**	$ (235)	**$ 12,799**	$ 12,502
EBITDA [1]	**$ 2,906**	$ 2,806	**$ 1,323**	$ 1,456	**$ —**	$ —	**$ 4,229**	$ 4,262
CAPEX, excluding spectrum licences [2]	**$ 982**	$ 893	**$ 1,986**	$ 1,684	**$ —**	$ —	**$ 2,968**	$ 2,577

Operating revenues — external (above)	**$ 12,799**	$ 12,502
Goods and services purchased	**5,631**	5,532
Employee benefits expense	**2,939**	2,708
EBITDA (above)	**4,229**	4,262
Depreciation	**1,564**	1,475
Amortization	**483**	434
Operating income	**2,182**	2,353
Financing costs	**520**	447
Income before income taxes	**$ 1,662**	$ 1,906

(1) Earnings before interest, income taxes, depreciation and amortization (EBITDA) does not have any standardized meaning prescribed by IFRS-IASB and is therefore unlikely to be comparable to similar measures presented by other issuers; we define EBITDA as operating revenues less goods and services purchased and employee benefits expense. We have issued guidance on, and report, EBITDA because it is a key measure that management uses to evaluate the performance of our business, and it is also utilized in measuring compliance with certain debt covenants.

(2) Total capital expenditures (CAPEX); see *Note 31(a)* for a reconciliation of capital expenditures, excluding spectrum licences to cash payments for capital assets, excluding spectrum licences reported in the Consolidated statements of cash flows.

Geographical information

We attribute revenues from external customers to individual countries on the basis of the location where the goods and/or services are provided. We do not have material revenues that we attribute to countries other than Canada (our country of domicile), nor do we have material amounts of property, plant, equipment, intangible assets and/or goodwill located outside of Canada.

6 other operating income

Years ended December 31 (millions)	Note	2016	2015
Government assistance, including deferral account amortization		**$ 36**	$ 48
Investment income (loss)		**27**	(5)
Interest income	*21(c)*	**1**	3
Gain on disposal of assets and other		**10**	26
		$ 74	$ 72

We receive government assistance, as defined by IFRS-IASB, from a number of sources and include such amounts received in Other operating income.

CRTC subsidy

Local exchange carriers' costs of providing the level of residential basic telephone services that the CRTC requires to be provided in high cost serving areas are greater than the amounts the CRTC allows the local exchange carriers to charge for the level of service. To ameliorate the situation, the CRTC directs the collection of contribution payments, in a central fund, from all registered Canadian telecommunications service providers (including voice, data and wireless service providers) that are then disbursed to incumbent local exchange carriers as subsidy payments to partially offset the costs of providing residential basic telephone services in non-forborne high cost serving areas. The subsidy payments are based upon a total subsidy requirement calculated on a per network access line/per band subsidy rate. For the year ended December 31, 2016, our subsidy receipts were $20 million (2015 — $22 million).

The CRTC currently determines, at a national level, the total annual contribution requirement necessary to pay the subsidies and then collects contribution payments from the Canadian telecommunications service providers, calculated as a percentage of their CRTC-defined telecommunications service revenue. The final contribution expense rate for 2016

was 0.53% and the interim rate for 2017 has been set at 0.63%. For the year ended December 31, 2016, our contributions to the central fund, which are accounted for as goods and services purchased, were $23 million (2015 — $26 million).

Government of Quebec

Salaries for qualifying employment positions in the province of Quebec, mainly in the information technology sector, are eligible for tax credits. In respect of such tax credits, for the year ended December 31, 2016, we recorded $6 million (2015 — $8 million).

7 employee benefits expense

		2016			2015
Years ended December 31 (millions)	Note	Traditional	Transformative compensation (Note 15(c))	Total	Total
Employee benefits expense — gross					
Wages and salaries		**$ 2,548**	**$ 185**	**$ 2,733**	$ 2,537
Share-based compensation [1]	*13*	**114**	**67**	**181**	125
Pensions — defined benefit	*14(b)*	**92**	**—**	**92**	118
Pensions — defined contribution	*14(f)*	**89**	**41**	**130**	90
Other defined benefits	*14(g)*	**1**	**—**	**1**	—
Restructuring costs [1]	*15(b)*	**112**	**—**	**112**	156
Other		**153**	**12**	**165**	149
		3,109	**305**	**3,414**	3,175
Capitalized internal labour costs					
Property, plant and equipment		**(314)**	**—**	**(314)**	(319)
Intangible assets subject to amortization		**(161)**	**—**	**(161)**	(148)
		(475)	**—**	**(475)**	(467)
		$ 2,634	**$ 305**	**$ 2,939**	$ 2,708

(1) For the year ended December 31, 2016, $4 of share-based compensation was included in restructuring costs (2015 — $7).

8 financing costs

Years ended December 31 (millions)	Note	2016	2015
Interest expense			
Interest on long-term debt — gross		**$ 538**	$ 498
Capitalized long-term debt interest [1]	*18(a)*	**(52)**	(45)
Interest on long-term debt — net		**486**	453
Interest on short-term borrowings and other		**4**	5
Interest accretion on provisions	*25*	**12**	12
		502	470
Employee defined benefit plans net interest	*14(b), (g)*	**6**	27
Foreign exchange		**15**	(25)
		523	472
Interest income			

Interest on income tax refunds	**(1)**	(23)
Other	**(2)**	(2)
	(3)	(25)
	$ 520	$ 447

(1) Long-term debt interest at a composite rate of 3.31% was capitalized to intangible assets with indefinite lives.

notes to consolidated financial statements

9 income taxes

(a) Expense composition and rate reconciliation

Years ended December 31 (millions)	2016	2015
Current income tax expense		
For the current reporting period	**$ 506**	$ 553
Adjustments recognized in the current period for income taxes of prior periods	**(38)**	(97)
	468	456
Deferred income tax expense (recovery)		
Arising from the origination and reversal of temporary differences	**(64)**	(47)
Revaluation of deferred income tax liability to reflect future statutory income tax rates	**(4)**	48
Adjustments recognized in the current period for income taxes of prior periods	**26**	67
	(42)	68
	$ 426	$ 524

Our income tax expense and effective income tax rate differ from those calculated by applying the applicable statutory rates for the following reasons:

Years ended December 31 ($ in millions)	2016		2015	
Income taxes computed at applicable statutory rates	**$ 444**	**26.7%**	$ 505	26.5%
Revaluation of deferred income tax liability to reflect future income tax rates	**(4)**	**(0.2)**	48	2.5
Adjustments recognized in the current period for income taxes of prior periods	**(12)**	**(0.8)**	(30)	(1.6)
Other	**(2)**	**(0.1)**	1	0.1
Income tax expense per Consolidated statements of income and other comprehensive income	**$ 426**	**25.6%**	$ 524	27.5%

(b) Temporary differences

We must make significant estimates in respect of the composition of our deferred income tax liability. Our operations are complex and the related income tax interpretations, regulations, legislation and jurisprudence are continually changing. As a result, there are usually some income tax matters in question.

Temporary differences comprising the net deferred income tax liability and the amounts of deferred income taxes recognized in the Consolidated statements of income and other comprehensive income and the Consolidated statements of changes in owners' equity are estimated as follows:

(millions)	Property, plant and equipment and intangible assets subject to amortization	Intangible assets with indefinite lives	Partnership income unallocated for income tax purposes	Net pension and share-based compensation amounts	Reserves not currently deductible	Losses available to be carried forward [1]	Other	Net deferred income tax liability
As at January 1, 2015	$ 601	$ 1,289	$ 359	$ (194)	$ (135)	$ (5)	$ 21	$ 1,936
Deferred income tax expense recognized in								
Net income	184	91	(164)	(5)	(25)	2	(15)	68
Other comprehensive income	—	—	—	154	—	—	(3)	151
As at December 31, 2015	785	1,380	195	(45)	(160)	(3)	3	2,155
Deferred income tax expense recognized in								
Net income	**85**	**77**	**(200)**	**(7)**	**12**	**(3)**	**(6)**	**(42)**
Other comprehensive income	**—**	**—**	**—**	**4**	**—**	**—**	**(10)**	**(6)**
Deferred income taxes charged directly to owners' equity and other	**—**	**—**	**—**	**—**	**—**	**—**	**(5)**	**(5)**
As at December 31, 2016 [2]	**$ 870**	**$ 1,457**	**$ (5)**	**$ (48)**	**$ (148)**	**$ (6)**	**$ (18)**	**$ 2,102**

(1) We expect to be able to utilize our non-capital losses prior to expiry.

(2) Deferred tax liability of $2,107, net of deferred tax asset of $5 (included in Other long-term assets).

IFRS-IASB requires the separate disclosure of temporary differences arising from the carrying value of investments in subsidiaries and partnerships exceeding their tax base, for which no deferred income tax liabilities have been recognized unless the parent is able to control the timing of the reversal of the difference and it is probable that it will not reverse in the forseeable future. In our specific instance, this is relevant to our investments in Canadian subsidiaries and Canadian partnerships. We are not required to recognize such deferred income tax liabilities, as we are in a position to control the timing and manner of the reversal of the temporary differences, which would not be expected to be exigible to

income tax, and it is probable that such differences will not reverse in the foreseeable future. We are in a position to control the timing and manner of the reversal of temporary differences in respect of our non-Canadian subsidiaries, and it is probable that such differences will not reverse in the foreseeable future.

(c) Other

We have net capital losses and such losses may only be applied against realized taxable capital gains. We expect to include a net capital loss carry-forward of $4 million (2015 — $4 million) in our Canadian income tax returns. During the year ended December 31, 2016, we recognized the benefit of $NIL (2015 — $3 million) of net capital losses.

We conduct research and development activities, which are eligible to earn Investment Tax Credits. During the year ended December 31, 2016, we recorded Investment Tax Credits of $5 million (2015 — $6 million). Of this amount, $1 million (2015 — $4 million) was recorded as a reduction of property, plant and equipment and/or intangible assets and the balance was recorded as a reduction of Goods and services purchased.

10 other comprehensive income

	Items that may subsequently be reclassified to income						Item never reclassified to income	
	Change in unrealized fair value of derivatives designated as cash flow hedges in current period (Note 4(i))							
(millions)	Gains (losses) arising	Prior period (gains) losses transferred to net income	Total	Cumulative foreign currency translation adjustment	Change in unrealized fair value of available-for-sale financial assets	Accumulated other comp. income	Employee defined benefit plan re-measure-ments	Other comp. income
Accumulated balance as at January 1, 2015			$ 4	$ 18	$ 16	$ 38		
Other comprehensive income (loss)								
Amount arising	$ 58	$ (63)	(5)	25	—	20	$ 597	$ 617
Income taxes	$ 15	$ (16)	(1)	—	—	(1)	152	151
Net			(4)	25	—	21	$ 445	$ 466
Accumulated balance as at December 31, 2015			—	43	16	59		
Other comprehensive income (loss)								
Amount arising	**$ (47)**	**$ 21**	**(26)**	**5**	—	**(21)**	**$ —**	**$ (21)**
Income taxes	**$ (13)**	**$ 7**	**(6)**	—	—	**(6)**	**—**	**(6)**
Net			**(20)**	**5**	—	**(15)**	**$ —**	**$ (15)**
Accumulated balance as at December 31, 2016			**$ (20)**	**$ 48**	**$ 16**	**$ 44**		
Attributable to:								
Common Shares						**$ 42**		
Non-controlling interest						**2**		
						$ 44		

As at December 31, 2016, our estimate of the net amount of existing gains (losses) arising from the unrealized fair value of derivatives designated as cash flow hedges that are reported in accumulated other comprehensive income and are expected to be reclassified to net income in the next twelve months, excluding income tax effects, is $(1) million.

11 per share amounts

Basic net income per Common Share is calculated by dividing net income attributable to Common Shares by the total weighted average number of Common Shares outstanding during the period. Diluted net income per Common Share is calculated to give effect to share option awards and restricted stock units.

The following table presents the reconciliations of the denominators of the basic and diluted per share computations. Net income was equal to diluted net income for all periods presented.

Years ended December 31 (millions)	2016	2015
Basic total weighted average number of Common Shares outstanding	**592**	603
Effect of dilutive securities		
Share option awards	**1**	1
Diluted total weighted average number of Common Shares outstanding	**593**	604

For the years ended December 31, 2016 and 2015, no outstanding share option awards were excluded in the computation of diluted net income per Common Share.

12 dividends per share

(a) Dividends declared

Years ended December 31 (millions except per share amounts)	2016				2015			
	Declared		Paid to		Declared		Paid to	
Common Share dividends	Effective	Per share	shareholders	Total	Effective	Per share	shareholders	Total
Quarter 1 dividend	**Mar. 11, 2016**	**$ 0.44**	**Apr. 1, 2016**	**$ 261**	Mar. 11, 2015	$ 0.40	Apr. 1, 2015	$ 243
Quarter 2 dividend	**Jun. 10, 2016**	**0.46**	**Jul. 4, 2016**	**274**	Jun. 10, 2015	0.42	Jul. 2, 2015	253
Quarter 3 dividend	**Sep. 9, 2016**	**0.46**	**Oct. 3, 2016**	**272**	Sep. 10, 2015	0.42	Oct. 1, 2015	252
Quarter 4 dividend	**Dec. 9, 2016**	**0.48**	**Jan. 3, 2017**	**284**	Dec. 11, 2015	0.44	Jan. 4, 2016	263
		$ 1.84		**$ 1,091**		$ 1.68		$ 1,011

On February 8, 2017, the Board of Directors declared a quarterly dividend of $0.48 per share on our issued and outstanding Common Shares payable on April 3, 2017, to holders of record at the close of business on March 10, 2017. The final amount of the dividend payment depends upon the number of Common Shares issued and outstanding at the close of business on March 10, 2017.

(b) Dividend Reinvestment and Share Purchase Plan

We have a Dividend Reinvestment and Share Purchase Plan under which eligible holders of Common Shares may acquire additional Common Shares by reinvesting dividends and by making additional optional cash payments to the trustee. Under this Plan, we have the option of offering Common Shares from Treasury or having the trustee acquire Common Shares in the stock market.

We may, at our discretion, offer Common Shares at a discount of up to 5% from the market price under the Plan. During the years ended December 31, 2016 and 2015, we opted to have the trustee acquire the Common Shares in the stock market with no discount offered. In respect of Common Share dividends declared during the year ended December 31, 2016, $59 million (2015 — $59 million) was to be reinvested in Common Shares.

Under the share purchase feature of the Plan, eligible shareholders can make optional cash payments and purchase our Common Shares at the market price without brokerage commissions or service charges; such purchases are subject to a minimum investment of $100 per transaction and a maximum investment of $20,000 per calendar year.

13 share-based compensation

(a) Details of share-based compensation expense

Reflected in the Consolidated statements of income and other comprehensive income as Employee benefits expense and in the Consolidated statements of cash flows are the following share-based compensation amounts:

Years ended December 31 (millions)	Note	2016 Employee benefits expense	2016 Associated operating cash outflows	2016 Statement of cash flows adjustment	2015 Employee benefits expense	2015 Associated operating cash outflows	2015 Statement of cash flows adjustment
Restricted stock units [1]	*(b)*	**$ 81**	**$ (83)**	**$ (2)**	$ 93	$ (132)	$ (39)
Transformative compensation [2]	*15(c)*	**64**	**(64)**	**—**	—	—	—
Employee share purchase plan [3]	*(c)*	**40**	**(40)**	**—**	38	(38)	—
Share option awards	*(d)*	**—**	**—**	**—**	1	—	1
		$ 185	**$ (187)**	**$ (2)**	$ 132	$ (170)	$ (38)

(1) The expense arising from restricted stock units was net of cash-settled equity swap agreement effects (see *Note 4(i)*). Within employee benefits expense (see *Note 7*), restricted stock unit expense of $77 (2015 — $86) is presented as share-based compensation and the balance is included in restructuring costs.

(2) As set out in *Note 15(c)*, we made immediately vesting, transformative compensation lump-sum payments to substantially all of our existing unionized and non-unionized Canadian-sited workforces. For the unionized and non-unionized workforces, approximately 40% of the after-tax value of such qualifying lump-sum payments was paid in our Common Shares (see *Note 28(b)*) by way of an employee benefit trust.

As a result of our being considered for accounting purposes to control an employee benefit plan trust that was used to effect these Common Share payments, such transactions have been recognized as treasury stock transactions and we have applied the cost method of accounting. As at December 31, 2016, the employee benefit plan trust held no Common Shares.

(3) Employees receiving an immediately vesting, transformative compensation lump-sum payment contributed a percentage of their payment to the employee share purchase plan consistent with their regular compensation payment, as further described in *(c)*. Our associated employer expense and contributions were $3.

For the year ended December 31, 2016, the associated operating cash outflows in respect of restricted stock units were net of cash inflows arising from the cash-settled equity swap agreements of $9 million (2015 — $27 million). For the year ended December 31, 2016, the income tax benefit arising from share-based compensation was $49 million (2015 — $35 million).

(b) Restricted stock units

General

We use restricted stock units as a form of retention and incentive compensation. Each restricted stock unit is nominally equal in value to one equity share and is nominally entitled to the dividends that would arise thereon if it were an issued and outstanding equity share. The notional dividends are recorded as additional issuances of restricted stock units during the life of the restricted stock unit. Due to the notional dividend mechanism, the grant-date fair value of restricted stock units equals the fair market value of the corresponding equity shares at the grant date. The restricted stock units generally become payable when vesting is completed and typically vest over a period of 33 months (the requisite service period). The vesting method of restricted stock units, which is determined on or before the date of grant, may be either cliff or graded; the majority of restricted stock units outstanding have cliff vesting. The associated liability is normally cash-settled.

TELUS Corporation restricted stock units

We also award restricted stock units that largely have the same features as our general restricted stock units, but have a variable payout (0% — 200%) that depends upon the achievement of our total customer connections performance condition (with a weighting of 25%) and the total shareholder return on our Common Shares relative to an international peer group of telecommunications companies (with a weighting of 75%). The grant-date fair value of the notional subset of our restricted stock units affected by the total customer connections performance condition equals the fair market value of the corresponding Common Shares at the grant date, and thus the notional subset has been included in the presentation of our restricted stock units with only service conditions. The recurring estimate, which reflects a variable payout, of the fair value of the notional subset of our restricted stock units affected by the relative total shareholder return performance element is determined using a Monte Carlo simulation.

The following table presents a summary of outstanding TELUS Corporation non-vested restricted stock units.

Number of non-vested restricted stock units as at December 31	2016	2015
Restricted stock units without market performance conditions		
Restricted stock units with only service conditions	**3,260,745**	3,429,008
Notional subset affected by total customer connections performance condition	**130,234**	135,404
	3,390,979	3,564,412
Restricted stock units with market performance conditions		
Notional subset affected by relative total shareholder return performance condition	**390,703**	406,243
	3,781,682	3,970,655

The following table presents a summary of the activity related to TELUS Corporation restricted stock units without market performance conditions.

	2016			2015		
	Number of restricted stock units [1]		Weighted average grant-date fair value	Number of restricted stock units [1]		Weighted average grant-date fair value
Years ended December 31	Non-vested	Vested		Non-vested	Vested	
Outstanding, beginning of period						
Non-vested	**3,564,412**	**—**	**$ 41.42**	5,471,978	—	$ 35.04
Vested	**—**	**29,008**	**$ 40.00**	—	38,585	$ 34.20
Issued						
Initial award	**1,942,446**	**—**	**$ 39.74**	1,844,161	—	$ 44.00
In lieu of dividends	**209,027**	**381**	**$ 41.63**	224,336	385	$ 42.31
Vested	**(2,024,130)**	**2,024,130**	**$ 39.31**	(3,810,514)	3,810,514	$ 33.44
Settled in cash	**—**	**(2,004,126)**	**$ 39.29**	—	(3,820,476)	$ 33.34
Forfeited and cancelled	**(300,776)**	**(20,285)**	**$ 35.70**	(165,549)	—	$ 38.19
Outstanding, end of period						
Non-vested	**3,390,979**	**—**	**$ 41.71**	3,564,412	—	$ 41.42
Vested	**—**	**29,108**	**$ 38.09**	—	29,008	$ 40.00

(1) Excluding the notional subset of restricted stock units affected by the relative total shareholder return performance element.

With respect to certain issuances of TELUS Corporation restricted stock units, we have entered into cash-settled equity forward agreements that fix our cost; that information, as well as a schedule of non-vested TELUS Corporation restricted stock units outstanding as at December 31, 2016, is set out in the following table.

Vesting in years ending December 31	Number of fixed-cost restricted stock units	Our fixed cost per restricted stock unit	Number of variable-cost restricted stock units	Total number of non-vested restricted stock units [1]
2017	1,610,984	$ 45.35	35,609	1,646,593
2018	1,604,835	$ 40.77	139,551	1,744,386
	3,215,819		175,160	3,390,979

(1) Excluding the notional subset of restricted stock units affected by the relative total shareholder return performance element.

TELUS International (Cda) Inc. restricted stock units

We also award restricted stock units that largely have the same features as the TELUS Corporation restricted stock units, but have a variable payout (0% — 150%) that depends upon the achievement of TELUS International (Cda) Inc. financial performance and non-market quality-of-service performance conditions.

The following table presents a summary of the activity related to TELUS International (Cda) Inc. restricted stock units.

	2016				
	U.S.$ denominated		Canadian $ denominated		
	Number of non-vested restricted stock units	Grant-date fair value	Number of restricted stock units		Grant-date fair value
Year ended December 31			Non-vested	Vested	
Issued — initial award	156,936	U.S.$ 21.92	32,299	—	$ 21.36
Vested	—	U.S.$ —	(32,299)	32,299	$ 21.36
Outstanding, end of period					
Non-vested	156,936	U.S.$ 21.92	—	—	$ —
Vested	—	U.S.$ —	—	32,299	$ 21.36

(c) Employee share purchase plan

We have an employee share purchase plan under which eligible employees up to a certain job classification can purchase our Common Shares through regular payroll deductions by contributing between 1% and 20% of their pay; for more highly compensated job classifications, employees may contribute between 1% and 55% of their pay. For every dollar contributed by an employee, up to a maximum of 6% of eligible employee pay, we are required to make a contribution at a percentage between 20% and 40%. For the years ended December 31, 2016 and 2015, we contributed 40% for employees up to a certain job classification; for more highly compensated job classifications, we contributed 35%. We record our contributions as a component of Employee benefits expense and our contribution vests on the earlier of a plan participant's last day in our employ or the last business day of the calendar year of our contribution, unless the plan participant's employment is terminated with cause, in which case the plan participant will forfeit any in-year contribution from us.

(d) Share option awards

General

We use share option awards as a form of retention and incentive compensation. We apply the fair value method of accounting for share-based compensation awards granted to officers and other employees. Share option awards typically have a three-year vesting period (the requisite service period), but may vest over periods of up to five years. The vesting method of share option awards, which is determined on or before the date of grant, may be either cliff or graded; all share option awards granted subsequent to 2004 have been cliff-vesting awards.

The weighted average fair value of share option awards granted is calculated by using the Black-Scholes model (a closed-form option pricing model). The risk-free interest rate used in determining the fair value of the share option awards is based on a Government of Canada yield curve that is current at the time of grant. The expected lives of the share option awards are based on our historical share option award exercise data. Similarly, expected volatility considers the historical volatility in the price of our Common Shares for TELUS Corporation share options and historical volatility in the price of a peer group's shares in respect of TELUS International (Cda) Inc. share options. The dividend yield is the annualized dividend current at the time of grant divided by the share option award exercise price. Dividends are not paid on unexercised share option awards and are not subject to vesting.

TELUS Corporation share options

Employees may receive options to purchase Common Shares at a price equal to the fair market value at the time of grant. Share option awards granted under the plan may be exercised over specific periods not to exceed seven years from the time of grant. No share options were awarded in fiscal 2016 or 2015.

These share option awards have a net-equity settlement feature. The optionee does not have the choice of exercising the net-equity settlement feature; it is at our option whether the exercise of a share option award is settled as a share option or settled using the net-equity settlement feature.

The following table presents a summary of the activity related to the TELUS Corporation share option plan.

	2016		2015	
Years ended December 31	Number of share options	Weighted average share option price	Number of share options	Weighted average share option price
Outstanding, beginning of period	2,375,596	$ 22.96	4,667,422	$ 23.53

Exercised [1]	**(925,682)**	**$**	**20.75**	(2,064,100)	$ 24.23
Forfeited	**(13,112)**	**$**	**24.49**	(72,350)	$ 26.13
Expired	**(19,109)**	**$**	**15.29**	(155,376)	$ 21.90
Outstanding, end of period	**1,417,693**	**$**	**24.49**	2,375,596	$ 22.96

(1) The total intrinsic value of share option awards exercised for the year ended December 31, 2016, was $19 million (2015 — $38 million), reflecting a weighted average price at the dates of exercise of $41.06 per share (2015 — $42.64 per share). The difference between the number of share options exercised and the number of Common Shares issued (as reflected in the Consolidated statements of changes in owners' equity) is the effect of our choosing to settle share option award exercises using the net-equity settlement feature.

The following is a life and exercise price stratification of outstanding TELUS Corporation share options, all of which are vested, as at December 31, 2016.

Options outstanding and exercisable

				Total	Weighted average price
Range of option prices					
Low	$ 16.31	$ 21.42	$ 28.56	$ 16.31	
High	$ 18.92	$ 25.64	$ 31.69	$ 31.69	
Year of expiry and number of options					
2017	295,887	8,180	—	304,067	$ 16.53
2018	—	477,308	—	477,308	$ 23.29
2019	—	—	636,318	636,318	$ 29.21
	295,887	485,488	636,318	1,417,693	
Weighted average remaining contractual life (years)	0.2	1.2	2.4	1.5	
Weighted average price	$ 16.37	$ 23.27	$ 29.21	$ 24.49	
Aggregate intrinsic value [1] (millions)	$ 8	$ 9	$ 9	$ 26	

(1) The aggregate intrinsic value is calculated based on the December 31, 2016, price of $42.75 per Common Share.

TELUS International (Cda) Inc. share options

Employees may receive equity share options (equity-settled) to purchase TELUS International (Cda) Inc. common shares at a price equal to, or a multiple of, the fair market value at the time of grant and/or phantom share options (cash-settled) that provide them with exposure to TELUS International (Cda) Inc. common share price appreciation. Share option awards granted under the plan may be exercised over specific periods not to exceed ten years from the time of grant. All equity share option awards and most phantom share option awards have a variable payout (0% — 100%) that depends upon the achievement of TELUS International (Cda) Inc. financial performance and non-market quality-of-service performance conditions.

The following table presents a summary of the activity related to the TELUS International (Cda) Inc. share option plan.

	2016			
	U.S.$ denominated		Canadian $ denominated	
Year ended December 31	Number of share options	Weighted average share option price [1]	Number of share options	Share option price [2]
Granted and outstanding, end of period	**573,354**	**U.S.$ 34.71**	**53,832**	**$ 21.36**

(1) The range of share option prices is U.S.$21.90 — U.S.$40.26 per TELUS International (Cda) Inc. equity share and the weighted average remaining contractual life is 10 years.

(2) The weighted average remaining contractual life is 9.5 years.

notes to consolidated financial statements

14 employee future benefits

We have a number of defined benefit and defined contribution plans providing pension and other retirement and post-employment benefits to most of our employees. As at December 31, 2016 and 2015, all registered defined benefit pension plans were closed to substantially all new participants and substantially all benefits had vested. The benefit plans in which our employees are participants reflect developments in our corporate history.

TELUS Corporation Pension Plan

Management and professional employees in Alberta who joined us prior to January 1, 2001, and certain unionized employees who joined us prior to June 9, 2011, are covered by this contributory defined benefit pension plan, which comprises slightly more than one-half of our total defined benefit obligation accrued. The plan contains a supplemental benefit account that may provide indexation of up to 70% of the annual increase in a specified cost-of-living index. Pensionable remuneration is determined by the average of the best five years in the last ten years preceding retirement.

Pension Plan for Management and Professional Employees of TELUS Corporation

This defined benefit pension plan, which with certain limited exceptions ceased accepting new participants on January 1, 2006, and which comprises approximately one-quarter of our total defined benefit obligation accrued, provides a non-contributory base level of pension benefits. Additionally, on a contributory basis, employees annually can choose increased and/or enhanced levels of pension benefits above the base level. At an enhanced level of pension benefits, the plan has indexation of 100% of the annual increase in a specified cost-of-living index, to an annual maximum of 2%. Pensionable remuneration is determined by the annualized average of the best 60 consecutive months.

TELUS Québec Defined Benefit Pension Plan

This contributory defined benefit pension plan, which ceased accepting new participants on April 14, 2009, covers any employee not governed by a collective agreement in Quebec who joined us prior to April 1, 2006, any non-supervisory employee governed by a collective agreement who joined us prior to September 6, 2006, and certain other unionized employees. The plan comprises approximately one-tenth of our total defined benefit obligation accrued. The plan has no indexation and pensionable remuneration is determined by the average of the best four years.

TELUS Edmonton Pension Plan

This contributory defined benefit pension plan ceased accepting new participants on January 1, 1998. Indexation is 60% of the annual increase in a specified cost-of-living index and pensionable remuneration is determined by the annualized average of the best 60 consecutive months. The plan comprises less than one-tenth of our total defined benefit obligation accrued.

Other defined benefit pension plans

In addition to the foregoing plans, we have non-registered, non-contributory supplementary defined benefit pension plans, which have the effect of maintaining the earned pension benefit once the allowable maximums in the registered plans are attained. As is common with non-registered plans of this nature, these plans are typically funded only as benefits are paid. These plans comprise less than 5% of our total defined benefit obligation accrued.

We have three contributory non-indexed defined benefit pension plans arising from a pre-merger acquisition, which comprise less than 1% of our total defined benefit obligation accrued; these plans ceased accepting new participants in September 1989.

Telecommunication Workers Pension Plan

Certain employees in British Columbia are covered by a negotiated-cost, target-benefit union pension plan. Our contributions are determined in accordance with provisions of negotiated labour contracts, the current one of which expires December 31, 2021, and are generally based on employee gross earnings. We are not required to guarantee the benefits or assure the solvency of the plan, and we are not liable to the plan for other participating employers' obligations. For the years ended December 31, 2016 and 2015, our contributions comprised a significant proportion of the employer contributions to the union pension plan; similarly, a significant proportion of the plan participants were our active and retired employee participants.

British Columbia Public Service Pension Plan

Certain employees in British Columbia are covered by a public service pension plan. Contributions are determined in accordance with provisions of labour contracts negotiated by the Province of British Columbia and are generally based on employee gross earnings.

Defined contribution pension plans

We offer three defined contribution pension plans, which are contributory, and these are the pension plans that we sponsor that are available to our non-unionized and certain of our unionized employees. Employees, annually, can generally choose to contribute to the plans at a rate of between 3% and 6% of their pensionable earnings. Generally, we match 100% of the contributions of employees up to 5% of their pensionable earnings and 80% of employee contributions greater than that. Membership in a defined contribution pension plan is generally voluntary until an employee's third-year service anniversary. In the event that annual contributions exceed allowable maximums, excess amounts are in certain cases contributed to a non-registered supplementary defined contribution pension plan.

Other defined benefit plans

Other defined benefit plans, which are all non-contributory and, as at December 31, 2016 and 2015, non-funded, are comprised of a healthcare plan for retired employees and a life insurance plan, both of which ceased accepting new participants on January 1, 1997.

(a) Defined benefit pension plans — funded status overview

Information concerning our defined benefit pension plans, in aggregate, is as follows:

As at December 31 (millions)	2016	2015
PRESENT VALUE OF THE DEFINED BENEFIT OBLIGATIONS		
Balance at beginning of year	**$ 8,620**	$ 9,036
Current service cost	**109**	126
Past service cost	**2**	11
Interest expense	**340**	349
Actuarial loss (gain) arising from:		
Demographic assumptions	**25**	(69)
Financial assumptions	**184**	(418)
Benefits paid	**(443)**	(415)
Balance at end of year	**8,837**	8,620
PLAN ASSETS		
Fair value at beginning of year	**8,641**	8,480
Return on plan assets		
Notional interest income on plan assets at discount rate	**339**	325
Actual return on plan assets greater than discount rate	**247**	139
Contributions		
Employer contributions *(d)*	**70**	93
Employees' contributions	**25**	25
Benefits paid	**(443)**	(415)
Administrative fees	**(6)**	(6)
Fair value at end of year	**8,873**	8,641
Effect of asset ceiling limit		
Beginning of year	**(74)**	(42)
Change	**(41)**	(32)
End of year	**(115)**	(74)
Fair value of plan assets at end of year, net of asset ceiling limit	**8,758**	8,567
FUNDED STATUS — PLAN SURPLUS (DEFICIT)	**$ (79)**	$ (53)

The plan surplus (deficit) is reflected in the Consolidated statements of financial position as follows:

As at December 31 (millions)	Note	2016	2015
Funded status — plan surplus (deficit)			
Pension benefit plans		**$ (79)**	$ (53)
Other benefit plans		**(43)**	(42)
		$ (122)	$ (95)
Presented in the Consolidated statements of financial position as:			
Other long-term assets	*20*	**$ 358**	$ 356
Other long-term liabilities	*27*	**(480)**	(451)
		$ (122)	$ (95)

The measurement date used to determine the plan assets and defined benefit obligations accrued was December 31.

(b) Defined benefit pension plans — details

Expense

Our defined benefit pension plan expense (recovery) was as follows:

	2016				2015			
Years ended December 31 (millions) Recognized in	Employee benefits expense (Note 7)	Financing costs (Note 8)	Other comp. income (Note 10)	Total	Employee benefits expense (Note 7)	Financing costs (Note 8)	Other comp. income (Note 10)	Total
Current service cost	**$ 84**	**$ —**	**$ —**	**$ 84**	$ 101	$ —	$ —	$ 101
Past service costs	**2**	**—**	**—**	**2**	11	—	—	11
Net interest; return on plan assets								

Interest expense arising from defined benefit obligations accrued	**—**	**340**	**—**	**340**	—	349	—	349
Return, including interest income, on plan assets [1]	**—**	**(339)**	**(247)**	**(586)**	—	(325)	(139)	(464)
Interest effect on asset ceiling limit	**—**	**3**	**—**	**3**	—	2	—	2
	—	**4**	**(247)**	**(243)**	—	26	(139)	(113)
Administrative fees	**6**	**—**	**—**	**6**	6	—	—	6
Re-measurements arising from:								
Demographic assumptions	**—**	**—**	**25**	**25**	—	—	(69)	(69)
Financial assumptions	**—**	**—**	**184**	**184**	—	—	(418)	(418)
	—	**—**	**209**	**209**	—	—	(487)	(487)
Changes in the effect of limiting net defined benefit assets to the asset ceiling	**—**	**—**	**38**	**38**	—	—	30	30
	$ 92	**$ 4**	**$ —**	**$ 96**	$ 118	$ 26	$ (596)	$ (452)

(1) The interest income on the plan assets portion of the employee defined benefit plans net interest amount included in Financing costs reflects a rate of return on plan assets equal to the discount rate used in determining the defined benefit obligations accrued.

Disaggregation of defined benefit pension plan funding status

Defined benefit obligations accrued are the actuarial present values of benefits attributed to employee services rendered to a particular date. Our disaggregation of defined benefit pension plan surpluses and deficits at year-end is as follows:

	2016				2015			
As at December 31 (millions)	**Defined benefit obligations accrued**	**Plan assets**	**Difference**	**PBSR solvency position [1]**	**Defined benefit obligations accrued**	**Plan assets**	**Difference**	**PBSR solvency position [1]**
Pension plans that have plan assets in excess of defined benefit obligations accrued	**$ 7,610**	**$ 7,968**	**$ 358**	**$ 356**	$ 7,429	$ 7,785	$ 356	$ 98
Pension plans that have defined benefit obligations accrued in excess of plan assets								
Funded	**1,034**	**790**	**(244)**	**(62)**	1,001	782	(219)	(190)
Unfunded	**193**	**—**	**(193)**	**N/A** [2]	190	—	(190)	N/A [2]
	1,227	**790**	**(437)**	**(62)**	1,191	782	(409)	(190)
	$ 8,837	**$ 8,758**	**$ (79)**	**$ 294**	$ 8,620	$ 8,567	$ (53)	$ (92)
Defined benefit obligations accrued owed to:								
Active members	**$ 2,140**				$ 2,271			
Deferred members	**557**				513			
Pensioners	**6,140**				5,836			
	$ 8,837				$ 8,620			

(1) The Office of the Superintendent of Financial Institutions, by way of the *Pension Benefits Standards Regulations, 1985* (PBSR) (see *(d)*), requires that a solvency valuation be performed on a periodic basis. The actual PBSR solvency positions are determined in conjunction with mid-year annual funding reports prepared by actuaries (see *(d)*); as a result, the PBSR solvency positions in this table as at December 31, 2016 and 2015, are interim estimates and updated estimates, respectively. The interim estimate as at December 31, 2015, was a net surplus of $429.

Interim estimated solvency ratios as at December 31, 2016, ranged from 93% to 107% (2015 — updated estimate is 90% to 102%; interim estimate was 96% to 110%) and the estimated three-year average solvency ratios, adjusted as required by the *Pension Benefits Standards Regulations, 1985*, ranged from 93% to 104% (2015 — updated estimate is 95% to 106%; interim estimate was 97% to 108%).

The solvency valuation effectively uses the fair value (excluding any asset ceiling limit effects) of the funded defined benefit pension plan assets (adjusted for theoretical wind-up expenses) to measure the solvency assets. Although the defined benefit obligations accrued and the solvency liabilities are calculated similarly, the assumptions used for each differ, primarily in respect of retirement ages and discount rates, and the solvency liabilities, due to the

required assumption about each plan being terminated on the valuation date, do not reflect assumptions about future compensation levels.

Relative to the experience-based estimates of retirement ages used for purposes of determining the defined benefit obligations accrued, the minimum no-consent retirement age used for solvency valuation purposes may result in either a greater or lesser pension liability, depending upon the provisions of each plan. The solvency positions in this table reflect composite weighted average discount rates of 3.10% (2015 — 3.00%). A hypothetical decrease of 25 basis points in the composite weighted average discount rate would result in a $303 decrease in the PBSR solvency position as at December 31, 2016 (2015 — $322); these sensitivities are hypothetical, should be used with caution, are calculated without changing any other assumption and generally cannot be extrapolated because changes in amounts may not be linear.

(2) PBSR solvency position calculations are not required for the three pension plans arising from a pre-merger acquisition or for the non-registered, unfunded pension plans.

Fair value measurements

Information about the fair value measurements of our defined benefit pension plan assets, in aggregate, is as follows:

			Fair value measurements at reporting date using			
	Total		Quoted prices in active markets for identical items		Other	
As at December 31 (millions)	**2016**	**2015**	**2016**	**2015**	**2016**	**2015**
Asset class						
Equity securities						
Canadian	**$ 1,172**	$ 1,841	**$ 1,135**	$ 1,387	**$ 37**	$ 454
Foreign	**1,876**	2,232	**1,189**	1,527	**687**	705
Debt securities						
Issued by national, provincial or local governments	**1,463**	1,441	**1,362**	1,338	**101**	103
Corporate debt securities	**1,317**	1,164	**—**	—	**1,317**	1,164
Asset-backed securities	**31**	32	**—**	—	**31**	32
Commercial mortgages	**1,107**	691	**—**	—	**1,107**	691
Cash, cash equivalents and other	**1,151**	614	**29**	12	**1,122**	602
Real estate	**756**	626	**—**	14	**756**	612
	8,873	8,641	**$ 3,715**	$ 4,278	**$ 5,158**	$ 4,363
Effect of asset ceiling limit	**(115)**	(74)				
	$ 8,758	$ 8,567				

As at December 31, 2016, we administered pension benefit trusts that held no TELUS Corporation Common Shares and held debt of TELUS Corporation with a fair value of approximately $3 million (2015 — $3 million) (see *(c) — Allowable and prohibited investment types*). As at December 31, 2016 and 2015, pension benefit trusts that we administered did not lease real estate to us.

Future benefit payments

Estimated future benefit payments from our defined benefit pension plans, calculated as at December 31, 2016, are as follows:

Years ending December 31 (millions)	
2017	**$ 441**
2018	**450**
2019	**456**
2020	**459**
2021	**464**
2022-2026	**2,399**

(c) Plan investment strategies and policies

Our primary goal for the defined benefit pension plans is to ensure the security of the retirement income and other benefits of the plan members and their beneficiaries. A secondary goal is to maximize the long-term rate of return on the defined benefit plans' assets within a level of risk acceptable to us.

Risk management

We consider absolute risk (the risk of contribution increases, inadequate plan surplus and unfunded obligations) to be more important than relative return risk. Accordingly, the defined benefit plans' designs, the nature and maturity of defined benefit obligations and the characteristics of the plans' memberships significantly influence investment strategies and policies. We manage risk by specifying allowable and prohibited investment types, setting diversification strategies and determining target asset allocations.

Allowable and prohibited investment types

Allowable and prohibited investment types, along with associated guidelines and limits, are set out in each plan's required Statement of Investment Policies and Procedures (SIPP), which is reviewed and approved annually by the designated governing body. The SIPP guidelines and limits are further governed by the permitted investments and lending limits set out in the *Pension Benefits Standards Regulations, 1985*. As well as conventional investments, each

fund's SIPP may provide for the use of derivative products to facilitate investment operations and to manage risk, provided that no short position is taken, no use of leverage is made and there is no violation of guidelines and limits established in the SIPP. Internally and externally managed funds are not permitted to directly invest in our securities and are prohibited from increasing grandfathered investments in our securities; grandfathered investments were made prior to the merger of BC TELECOM Inc. and TELUS Corporation, our predecessors.

Diversification

Our strategy for investments in equity securities is to be broadly diversified across individual securities, industry sectors and geographical regions. A meaningful portion (20% – 30% of total plan assets) of the plans' investment in equity securities is allocated to foreign equity securities with the intent of further diversifying plan assets. Debt securities may include a meaningful allocation to mortgages, with the objective of enhancing cash flow and providing greater scope for the management of the bond component of the plan assets. Debt securities also may include real return bonds to provide inflation protection, consistent with the indexed nature of some defined benefit obligations. Real estate investments are used to provide diversification of plan assets, hedging of potential long-term inflation and comparatively stable investment income.

Relationship between plan assets and benefit obligations

With the objective of lowering the long-term costs of our defined benefit pension plans, we purposely mismatch plan assets and benefit obligations. This mismatching is effected by including equity investments in the long-term asset mix, as well as fixed income securities and mortgages with durations that differ from those of the benefit obligations.

As at December 31, 2016, the present value-weighted average timing of estimated cash flows for the obligations (duration) of the defined benefit pension plans was 13.6 years (2015 — 13.6 years) and of the other defined benefit plans was 7.3 years (2015 — 7.3 years). Compensation for liquidity issues that may have otherwise arisen from the mismatching of plan assets and benefit obligations is provided by broadly diversified investment holdings (including cash and short-term investments) and cash flows from dividends, interest and rents from those diversified investment holdings.

Asset allocations

Our defined benefit pension plans' target asset allocations and actual asset allocations are as follows:

	Target allocation	Percentage of plan assets at end of year	
Years ended December 31	**2017**	**2016**	**2015**
Equity securities	20-50%	**38%**	47%
Debt securities	40-75%	**53%**	46%
Real estate	5-25%	**9%**	7%
Other	0-4%	**—**	—
		100%	100%

(d) Employer contributions

The determination of the minimum funding amounts necessary for substantially all of our registered defined benefit pension plans is governed by the *Pension Benefits Standards Act, 1985*, which requires that, in addition to current service costs being funded, both going-concern and solvency valuations be performed on a specified periodic basis.

- Any excess of plan assets over plan liabilities determined in the going-concern valuation reduces our minimum funding requirement for current service costs, but may not reduce the requirement to an amount less than the employees' contributions. The going-concern valuation generally determines the excess (if any) of a plan's assets over its liabilities, determined on a projected benefit basis.

- As of the date of these consolidated financial statements, the solvency valuation generally requires that a plan's average solvency liabilities, determined on the basis that the plan is terminated on the valuation date, in excess of its assets (if any) be funded, at a minimum, in equal annual amounts over a period not exceeding five years. So as to manage the risk of overfunding the plans, which results from the solvency valuation for funding purposes utilizing the average solvency ratios, our funding may include the provision of letters of credit. As at December 31, 2016, undrawn letters of credit in the amount of $175 million (2015 — $161 million) secured certain obligations of the defined benefit pension plans.

Our best estimate of fiscal 2017 employer contributions to our defined benefit plans is approximately $65 million for defined benefit pension plans. This estimate is based upon the mid-year 2016 annual funding reports that were prepared by actuaries using December 31, 2015, actuarial valuations. The funding reports are based on the pension plans' fiscal years, which are calendar years. The next annual funding valuations are expected to be prepared mid-year 2017.

(e) Assumptions

As referred to in *Note 1(b)*, management is required to make significant estimates related to certain actuarial and economic assumptions that are used in determining defined benefit pension costs, defined benefit obligations accrued and pension plan assets. These significant estimates are of a long-term nature, consistent with the nature of employee future benefits.

Demographic assumptions

In determining the defined benefit pension expense recognized in net income for the years ended December 31, 2016 and 2015, we utilized the Canadian Institute of Actuaries CPM 2014 mortality tables.

Financial assumptions

The discount rate, which is used to determine a plan's defined benefit obligations accrued, is based upon the yield on long-term, high-quality fixed-term investments, and is set annually. The rate of future increases in compensation is based upon current benefits policies and economic forecasts.

The significant weighted average actuarial assumptions arising from these estimates and adopted in measuring our defined benefit obligations accrued are as follows:

	2016	2015
Discount rate [1] used to determine:		
Net benefit costs for the year ended December 31	**4.00%**	3.90%
Defined benefit obligations accrued as at December 31	**3.80%**	4.00%
Current service cost in subsequent fiscal year	**4.00%**	4.00%
Rate of future increases in compensation used to determine:		
Net benefit costs for the year ended December 31	**3.00%**	3.00%
Defined benefit obligations accrued as at December 31	**2.51%**	3.00%

(1) In 2016, we refined our methodology for estimating the discount rate to reflect discount rates appropriate for the timing of estimated cash flows for the obligations, rather than applying a single discount rate that was not specific to the timing of the estimated cash flows for the obligations. The discount rate disclosed in this table reflects the computation of an average discount rate that replicates the timing of the obligation cash flows. This refinement in estimation methodology did not have a material impact on our 2016 results of operations.

Sensitivity of key assumptions

The sensitivity of our key assumptions for our defined benefit pension plans was as follows:

Years ended, or as at, December 31	**2016**		**2015**	
Increase (decrease) (millions)	**Change in obligations**	**Change in expense**	**Change in obligations**	**Change in expense**
Sensitivity of key demographic assumptions to an increase of one year [1] in life expectancy	**$ 228**	**$ 10**	$ 214	$ 11
Sensitivity of key financial assumptions to a hypothetical decrease of 25 basis points [1] in:				
Discount rate	**$ 310**	**$ 17**	$ 302	$ 17
Rate of future increases in compensation	**$ (27)**	**$ (3)**	$ (26)	$ (3)

(1) These sensitivities are hypothetical and should be used with caution. Favourable hypothetical changes in the assumptions result in decreased amounts, and unfavourable hypothetical changes in the assumptions result in increased amounts, of the obligations and expenses. Changes in amounts based on a variation in assumptions of one year or 25 basis points generally cannot be extrapolated because the relationship of the change in assumption to the change in amounts may not be linear. Also, in this table, the effect of a variation in a particular assumption on the change in obligations or change in expense is calculated without changing any other assumption; in reality, changes in one factor may result in changes in another (for example, increases in the discount rate may result in changes in expectations about the rate of future increases in compensation), which might magnify or counteract the sensitivities.

(f) Defined contribution plans — expense

Our total defined contribution pension plan costs recognized were as follows:

	2016			
Years ended December 31 (millions)	**Traditional**	**Transformative compensation (Notes 7, 15(c))**	**Total**	**2015**
Union pension plan and public service pension plan contributions	**$ 26**	**$ 36**	**$ 62**	$ 28
Other defined contribution pension plans	**63**	**5**	**68**	62
	$ 89	**$ 41**	**$ 130**	$ 90

We expect that our 2017 union pension plan and public service pension plan contributions will be approximately $88 million.

(g) Other defined benefit plans

For the year ended December 31, 2016, other defined benefit current service cost was $1 million (2015 — $NIL), financing cost was $2 million

(2015 — $1 million) and other re-measurements recorded in other comprehensive income were $NIL (2015 — $(1) million). Estimated future benefit payments from our other defined benefit plans, calculated as at December 31, 2016, are $2 million annually for the five-year period from 2017 to 2021 and $7 million for the five-year period from 2022 to 2026.

15 restructuring and other costs

(a) Details of restructuring and other costs

With the objective of reducing ongoing costs, we incur associated incremental, non-recurring restructuring costs, as discussed further in *(b)* following. We may also incur atypical charges when undertaking major or transformational changes to our business or operating models, as discussed further in *(c)* following. We also include incremental external costs incurred in connection with business acquisition or disposition activity, as well as litigation costs, in the context of significant losses or settlements, in other costs.

Restructuring and other costs are presented in the Consolidated statements of income and other comprehensive income as set out in the following table:

	Restructuring (b)		Other (c)		Total	
Years ended December 31 (millions)	**2016**	**2015**	**2016**	**2015**	**2016**	**2015**
Goods and services purchased	**$ 62**	$ 70	**$ —**	$ —	$ **62**	$ 70
Employee benefits expense	**112**	156	**305**	—	**417**	156
	$ 174	$ 226	**$ 305**	$ —	$ **479**	$ 226

(b) Restructuring provisions

Employee related provisions and other provisions, as presented in *Note 25,* include amounts in respect of restructuring activities. In 2016, restructuring activities included ongoing and incremental efficiency initiatives, including personnel-related costs and rationalization of real estate. These initiatives were intended to improve our long-term operating productivity and competitiveness.

	2016			2015		
Years ended December 31 (millions)	**Employee related [1]**	**Other [1]**	**Total [1]**	**Employee related [1]**	**Other [1]**	**Total [1]**
Restructuring costs						
Additions	**$ 116**	**$ 69**	**$ 185**	$ 160	$ 74	$ 234
Reversal	**(4)**	**(7)**	**(11)**	(4)	(4)	(8)
Expense	**112**	**62**	**174**	156	70	226
Use	**(146)**	**(39)**	**(185)**	(81)	(41)	(122)
Expenses greater (less) than disbursements	**(34)**	**23**	**(11)**	75	29	104
Restructuring provisions						
Balance, beginning of period	**116**	**57**	**173**	41	28	69
Balance, end of period	**$ 82**	**$ 80**	**$ 162**	$ 116	$ 57	$ 173

(1) The transactions and balances in this column, excluding share-based compensation amounts, are included in, and thus are a subset of, the transactions and balances in the column with the same caption in *Note 25*.

(c) Other costs

For the year ended December 31, 2016, other costs are in respect of immediately vesting, transformative compensation expense for substantially all of our existing unionized (see *Note 29(c)*) and non-unionized Canadian-situated workforces; a portion of the expense is considered share-based compensation for accounting purposes, as set out in *Note 13(a)*. The compensation vested immediately, and thus was expensed when incurred, as there was no requisite service period of the recipients. The one-time payment to our existing unionized Canadian-situated workforce was compensation in respect of collective agreement concessions that moderate future labour costs and underpin productivity improvements, as well as in lieu of salary increases that would otherwise have been paid on July 1, 2016, 2017 and 2018; the one-time payment to our non-unionized Canadian-sited workforce was in lieu of general salary increases that would otherwise have been awarded in 2017 and 2018.

16 accounts receivable

As at December 31 (millions)	Note	2016	2015
Customer accounts receivable	*4(b)*	**$ 1,217**	$ 1,199
Accrued receivables — customer		**131**	128
Allowance for doubtful accounts	*4(b)*	**(54)**	(52)
		1,294	1,275
Accrued receivables — other		**177**	153
		$ 1,471	$ 1,428

17 property, plant and equipment

(millions)	Network assets	Buildings and leasehold improvements	Other	Land	Assets under construction	Total
At cost						
As at January 1, 2015	$ 26,415	$ 2,801	$ 1,163	$ 55	$ 504	$ 30,938
Additions [1]	732	24	93	—	1,252	2,101
Dispositions, retirements and other	(1,098)	(106)	(209)	—	—	(1,413)
Assets under construction put into service	1,142	128	73	—	(1,343)	—
As at December 31, 2015	27,191	2,847	1,120	55	413	31,626
Additions [1]	**762**	**45**	**39**	**—**	**1,472**	**2,318**
Additions arising from business acquisitions	**—**	**1**	**1**	**—**	**—**	**2**
Dispositions, retirements and other	**(739)**	**(78)**	**(223)**	**—**	**—**	**(1,040)**
Assets under construction put into service	**1,070**	**139**	**84**	**—**	**(1,293)**	**—**
As at December 31, 2016	**$ 28,284**	**$ 2,954**	**$ 1,021**	**$ 55**	**$ 592**	**$ 32,906**
Accumulated depreciation						
As at January 1, 2015	$ 19,202	$ 1,808	$ 805	$ —	$ —	$ 21,815
Depreciation	1,268	95	112	—	—	1,475
Dispositions, retirements and other	(1,119)	(93)	(188)	—	—	(1,400)
As at December 31, 2015	19,351	1,810	729	—	—	21,890
Depreciation	**1,357**	**99**	**108**	**—**	**—**	**1,564**
Dispositions, retirements and other	**(758)**	**(73)**	**(181)**	**—**	**—**	**(1,012)**
As at December 31, 2016	**$ 19,950**	**$ 1,836**	**$ 656**	**$ —**	**$ —**	**$ 22,442**
Net book value						
As at December 31, 2015	$ 7,840	$ 1,037	$ 391	$ 55	$ 413	$ 9,736
As at December 31, 2016	**$ 8,334**	**$ 1,118**	**$ 365**	**$ 55**	**$ 592**	**$ 10,464**

(1) For the year ended December 31, 2016, additions include $(40) (2015 — $65) in respect of asset retirement obligations (see *Note 25*).

As at December 31, 2016, our contractual commitments for the acquisition of property, plant and equipment totalled $436 million over a period ending December 31, 2020 (2015 — $326 million over a period ending December 31, 2017).

notes to consolidated financial statements

18 intangible assets and goodwill

(a) Intangible assets and goodwill, net

	Intangible assets subject to amortization						Intangible assets with indefinite lives			
(millions)	Subscriber base	Customer contracts, related customer relationships and leasehold interests	Software	Access to rights-of-way and other	Assets under construction	Total	Spectrum licences	Total intangible assets	Goodwill [1]	Total intangible assets and goodwill
At cost										
As at January 1, 2015	$ 245	$ 228	$ 3,406	$ 83	$ 222	$ 4,184	$ 6,390	$ 10,574	$ 4,121	$ 14,695
Additions	—	—	19	4	508	531	2,048	2,579	—	2,579
Additions arising from business acquisitions	—	—	2	—	—	2	—	2	4	6
Dispositions, retirements and other (including capitalized interest (see *Note 8*))	—	—	(140)	3	—	(137)	42	(95)	—	(95)

Assets under construction put into service	—	—	514	—	(514)	—	—	—	—	—
As at December 31, 2015	245	228	3,801	90	216	4,580	8,480	13,060	4,125	17,185
Additions	**—**	**—**	**50**	**4**	**575**	**629**	**164**	**793**	**—**	**793**
Additions arising from business acquisitions	**—**	**12**	**4**	**—**	**—**	**16**	**—**	**16**	**22**	**38**
Dispositions, retirements and other (including capitalized interest (see *Note 8*))	**—**	**—**	**(137)**	**(3)**	**—**	**(140)**	**49**	**(91)**	**—**	**(91)**
Assets under construction put into service	**—**	**—**	**577**	**2**	**(579)**	**—**	**—**	**—**	**—**	**—**
Net foreign exchange differences	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**4**	**4**
As at December 31, 2016	**$ 245**	**$ 240**	**$ 4,295**	**$ 93**	**$ 212**	**$ 5,085**	**$ 8,693**	**$ 13,778**	**$ 4,151**	**$ 17,929**
Accumulated amortization										
As at January 1, 2015	$ 98	$ 139	$ 2,490	$ 50	$ —	$ 2,777	$ —	$ 2,777	$ 364	$ 3,141
Amortization	14	29	387	4	—	434	—	434	—	434
Dispositions, retirements and other	—	—	(138)	2	—	(136)	—	(136)	—	(136)
As at December 31, 2015	112	168	2,739	56	—	3,075	—	3,075	364	3,439
Amortization	**13**	**30**	**436**	**4**	**—**	**483**	**—**	**483**	**—**	**483**
Dispositions, retirements and other	**—**	**—**	**(143)**	**(1)**	**—**	**(144)**	**—**	**(144)**	**—**	**(144)**
As at December 31, 2016	**$ 125**	**$ 198**	**$ 3,032**	**$ 59**	**$ —**	**$ 3,414**	**$ —**	**$ 3,414**	**$ 364**	**$ 3,778**
Net book value										
As at December 31, 2015	$ 133	$ 60	$ 1,062	$ 34	$ 216	$ 1,505	$ 8,480	$ 9,985	$ 3,761	$ 13,746
As at December 31, 2016	**$ 120**	**$ 42**	**$ 1,263**	**$ 34**	**$ 212**	**$ 1,671**	**$ 8,693**	**$ 10,364**	**$ 3,787**	**$ 14,151**

(1) Accumulated amortization of goodwill is amortization recorded prior to 2002; there are no accumulated impairment losses in the accumulated amortization of goodwill.

As at December 31, 2016, our contractual commitments for the acquisition of intangible assets, excluding that arising from BCE Inc.'s announced agreement to acquire Manitoba Telecom Services Inc. discussed in the following paragraph, totalled $82 million over a period ending December 31, 2020 (2015 — $55 million over a period ending December 31, 2018).

On May 2, 2016, BCE Inc. announced that it had entered into a definitive agreement to acquire all issued and outstanding shares of Manitoba Telecom Services Inc., subject to customary closing conditions, including court, shareholder and regulatory approvals, and was expected to close in late 2016 or early 2017; as of September 30, 2016, court and shareholder approvals had been obtained. In June 2016, we submitted a notification and advanced ruling request to the Competition Bureau regarding our previously announced agreement in principle with BCE Inc. pursuant to which we intend to acquire a portion of Manitoba Telecom Services Inc.'s postpaid wireless subscribers and dealer locations in Manitoba, upon the successful completion of BCE Inc.'s acquisition of Manitoba Telecom Services Inc. Our total price of the transaction with BCE Inc. will vary depending upon the actual number of qualifying postpaid wireless subscribers acquired. On February 2, 2017, BCE Inc. announced that it expected to close its acquisition of Manitoba Telecom Services Inc. by the end of March 31, 2017, subject to Competition Bureau and Innovation, Science and Economic Development Canada approvals. As of February 9, 2017, BCE Inc. had not received the requisite approvals from the Competition Bureau and Innovation, Science and Economic Development Canada.

(b) Intangible assets with indefinite lives — spectrum licences

Our intangible assets with indefinite lives include spectrum licences granted by Innovation, Science and Economic Development Canada and which are used for the provision of both mobile and fixed wireless services. The spectrum licence policy terms indicate that the spectrum licences will likely be renewed. We expect our spectrum licences to be renewed every 20 years following a review of our compliance with licence terms. In addition to current usage, our licensed spectrum can be used for planned and new technologies. As a result of our assessment of the combination of these significant factors, we currently consider our spectrum licences to have indefinite lives and, as referred to in *Note 1(b)*, this represents a significant judgment for us.

(c) Impairment testing of intangible assets with indefinite lives and goodwill

General

As referred to in *Note 1(i)*, the carrying values of intangible assets with indefinite lives and goodwill are periodically tested for impairment and, as referred to in *Note 1(b)*, this test represents a significant estimate for us, while also requiring significant judgments to be made.

The allocated carrying values of intangible assets with indefinite lives and goodwill are as set out in the following table.

As at December 31 (millions)	Intangible assets with indefinite lives		Goodwill		Total	
	2016	2015	2016	2015	2016	2015
Wireless	**$ 8,693**	$ 8,480	**$ 2,647**	$ 2,646	**$ 11,340**	$ 11,126
Wireline	**—**	—	**1,140**	1,115	**1,140**	1,115
	$ 8,693	$ 8,480	**$ 3,787**	$ 3,761	**$ 12,480**	$ 12,241

The recoverable amounts of the cash-generating units' assets have been determined based on a fair value less costs of disposal calculation (2015 — value in use calculation). There is a material degree of uncertainty with respect to the estimates of the recoverable amounts of the cash-generating units' assets, given the necessity of making key economic assumptions about the future. The fair value less costs of disposal recoverable amounts are categorized as Level 3 fair value measures.

We validate our recoverable amount calculation results through a market-comparable approach and an analytical review of industry facts and facts that are specific to us. The market-comparable approach uses current (at time of test) market consensus estimates and equity trading prices for U.S. and Canadian firms in the same industry. In addition, we ensure that the combination of the valuations of the cash-generating units is reasonable based on our current (at time of test) market values.

Key assumptions

The fair value less costs of disposal and the value in use calculations both use discounted cash flow projections that employ the following key assumptions: future cash flows and growth projections (including judgments about the allocation of future capital expenditures supporting both wireless and wireline operations); associated economic risk assumptions and estimates of achieving key operating metrics and drivers; estimates of future generational infrastructure capital expenditures; and the future weighted average cost of capital. We consider a range of reasonably possible amounts to use for key assumptions and decide upon amounts that represent management's best estimates of market amounts (2015 — TELUS-specific amounts). In the normal course, we make changes to key assumptions so that they reflect current (at time of test) economic conditions, updates of historical information used to develop the key assumptions and changes (if any) in our debt ratings.

The key assumptions for cash flow projections are based upon our approved financial forecasts, which span a period of three years and are discounted, for December 2016 annual test purposes, at a consolidated post-tax notional rate of 7.0% (the fair value less costs of disposal method requires the use of a post-tax rate) (2015 — 9.11% (the value in use method requires the use of a pre-tax rate)). For impairment testing valuations, the cash flows subsequent to the three-year projection period are extrapolated, for December 2016 annual test purposes, using perpetual growth rates of 2.0% (2015 — 1.75%) for the wireless cash-generating unit and 2.0% (2015 — 0.50%) for the wireline cash-generating unit; these growth rates do not exceed the long-term average growth rates observed in the markets in which we operate.

We believe that any *reasonably possible* change in the key assumptions on which the calculation of the recoverable amounts of our cash-generating units is based would not cause the cash-generating units' carrying values (including the intangible assets with indefinite lives and the goodwill allocated to each cash-generating unit) to exceed their recoverable amounts. If the future were to *adversely* differ from management's best estimates of key assumptions and associated cash flows were to be materially adversely affected, we could potentially experience future material impairment charges in respect of our intangible assets with indefinite lives and goodwill.

Sensitivity testing

Sensitivity testing was conducted as a part of the December 2016 annual test, a component of which was hypothetical changes in the future weighted average cost of capital. Stress testing included moderate declines in annual cash flows with all other assumptions being held constant; under this scenario, we would be able to recover the carrying values of our intangible assets with indefinite lives and goodwill for the foreseeable future.

(d) Business acquisitions

During the years ended December 31, 2016 and 2015, we acquired 100% ownership of multiple businesses complementary to our existing lines of business. The primary factor that gave rise to the recognition of goodwill was the earnings capacity of the acquired businesses in excess of the net tangible and intangible assets acquired (such excess arising from: the low levels of tangible assets relative to the earnings capacity of the businesses; expected synergies; the benefits of acquiring established businesses with certain capabilities in the industry; and the geographic presence of the acquired businesses). A portion of the amounts assigned to goodwill may be deductible for income tax purposes.

The acquisition-date fair values assigned to assets acquired and liabilities assumed in the individually immaterial acquisitions are also individually immaterial. Any differences between the results of operations currently presented and the pro forma amounts for operating revenues, net income and basic and diluted net income per Common Share reflecting the results of operations as if the business acquisitions had been completed at the beginning of the fiscal year are immaterial (as are the post-acquisition operating revenues and net income of the acquired businesses for the year ended December 31, 2016).

19 leases

We occupy leased premises in various locations and have land, buildings and equipment under operating leases. For the year ended

December 31, 2016, real estate and vehicle operating lease expenses, which are net of the amortization of deferred gains on the sale-leaseback of buildings and the occupancy costs associated with leased real estate, were $231 million (2015 — $227 million); occupancy costs associated with leased real estate totalled $78 million (2015 — $88 million).

As referred to in *Note 15*, we have consolidated administrative real estate holdings and, in some instances, t his has resulted in subletting land and buildings. The future minimum lease payments under operating leases are as follows:

As at December 31 (millions)	2016			2015		
Years ending	Operating leases with arm's-length lessors [1]	Operating leases with related party lessors [2]	Total	Operating leases with arm's-length lessors[1]	Operating leases with related party lessors [2]	Total
1 year hence	**$ 211**	**$ 6**	**$ 217**	$ 206	$ 6	$ 212
2 years hence	**192**	**6**	**198**	177	6	183
3 years hence	**171**	**12**	**183**	157	12	169
4 years hence	**147**	**13**	**160**	132	12	144
5 years hence	**125**	**13**	**138**	112	13	125
Thereafter	**599**	**220**	**819**	624	228	852
	$ 1,445	**$ 270**	**$ 1,715**	$ 1,408	$ 277	$ 1,685

(1) Immaterial amounts for minimum lease receipts from sublet land and buildings have been netted against the minimum lease payments in this table. Minimum lease payments exclude occupancy costs and thus will differ from future amounts reported for operating lease expenses. As at December 31, 2016, commitments under operating leases for occupancy costs totalled $869 (2015 — $907).

(2) As set out in *Note 21(d),* we have entered into leases with the real estate joint ventures. This table includes 100% of the minimum lease payment amounts due under these leases; of the total, $112 (2015 — $116) is due to our economic interests in the real estate joint ventures and $158 (2015 — $159) is due to our partners' economic interests in the real estate joint ventures.

Of the total amount above as at December 31, 2016:

- Approximately 34% (2015 — 37%) was in respect of our five largest leases, all of which were for office premises over various terms, with expiry dates ranging from 2024 to 2036 (2015 — ranging from 2024 to 2036); the weighted average term of these leases is approximately 14 years (2015 — 15 years).

- Approximately 30% (2015 — 29%) was in respect of wireless site leases; the weighted average term of these leases is approximately 17 years (2015 — 17 years).

See *Note 2(b)* for details of significant changes to IFRS-IASB which are not yet effective and have not yet been applied, but which will significantly affect the timing of the recognition of operating lease expenses and their recognition in the Consolidated statement of financial position, as well as their classification in the Consolidated statement of income and other comprehensive income and the Consolidated statement of cash flows.

20 other long-term assets

As at December 31 (millions)	Note	2016	2015
Pension assets	*14(a)*	**$ 358**	$ 356
Investments		**62**	69
Prepaid maintenance		**62**	46
Real estate joint ventures	*21(c)*	**30**	25
Real estate joint venture advances	*21(c)*	**21**	3
Other		**107**	94
		$ 640	$ 593

21 real estate joint ventures

(a) General

In 2011, we partnered, as equals, with an arm's-length party in a residential condominium, retail and commercial real estate redevelopment project, TELUS Garden, in Vancouver, British Columbia. TELUS is a tenant in TELUS Garden, which is now our global headquarters. The new-build office tower has received its 2009 Leadership in Energy and Environmental Design (LEED) Platinum certification, and the neighbouring new-build residential condominium tower was built to the LEED Gold standard.

In 2013, we partnered, as equals, with two arm's-length parties (one of which is also our TELUS Garden partner) in a residential, retail and commercial real estate redevelopment project, TELUS Sky, in Calgary, Alberta. The new-build tower, scheduled for completion in 2018, is to be built to the LEED Platinum standard.

notes to consolidated financial statements

(b) Real estate joint ventures — summarized financial information

As at December 31 (millions)	2016	2015
ASSETS		
Current assets		
Cash and temporary investments, net	**$ 15**	$ 20
Escrowed deposits for tenant inducements and liens	**5**	20
Sales contract deposits held by arm's-length trustee	**2**	6
Other	**6**	21
Property under development — residential condominiums (subject to sales contracts)	**13**	156
	41	223
Non-current assets		
Property under development — Investment property	**121**	96
Investment property	**261**	238
	382	334
	$ 423	$ 557
LIABILITIES AND OWNERS' EQUITY		
Current liabilities		
Accounts payable and accrued liabilities	**$ 18**	$ 46
Sales contract deposits		
Payable	**3**	55
Held by arm's-length trustee	**2**	6
Current portion of senior secured 3.4% bonds due July 2025	**4**	4
Construction credit facilities	**—**	96
Construction holdback liabilities	**7**	10
Other financial liability [1]	**—**	18
	34	235
Non-current liabilities		
Construction credit facilities	**63**	9
Other	**—**	4
Senior secured 3.4% bonds due July 2025	**213**	217
	276	230
Liabilities	**310**	465
Owners' equity		
TELUS [2]	**48**	36
Other partners	**65**	56
	113	92
	$ 423	$ 557

(1) Other financial liability was due to us; such amount was non-interest bearing, was secured by an $18 mortgage on the TELUS Garden residential condominium tower, was payable in cash and was due subsequent to repayment of the residential condominium tower construction credit facility.
(2) The equity amounts recorded by the real estate joint ventures differ from those recorded by us by the amount of the deferred gains on our real estate contributed and the valuation provision we have recorded in excess of that recorded by the real estate joint venture.

Years ended December 31 (millions)	2016	2015
Revenue		
From investment property	**$ 34**	$ 17
From sale of residential condominiums	**$ 262**	$ —
Depreciation and amortization	**$ 8**	$ 7
Interest expense [1]	**$ 10**	$ 7
Net income (loss) and comprehensive income (loss) [2]	**$ 72**	$ (4)

(1) During the year ended December 31, 2016, the real estate joint ventures capitalized $4 (2015 — $5) of financing costs.
(2) As the real estate joint ventures are partnerships, no provision for income taxes of the partners is made in determining the real estate joint ventures' net income (loss) and comprehensive income (loss).

(c) Our real estate joint ventures activity

Our real estate joint ventures investment activity is as set out in the following table.

Years ended December 31 (millions)	2016 Loans and receivables [1]	2016 Equity [2]	2016 Total	2015 Loans and receivables [1]	2015 Equity [2]	2015 Total
Related to real estate joint ventures' statements of income and other comprehensive income						
Comprehensive income (loss) attributable to us [3]	**$ —**	**$ 33**	**$ 33**	$ —	$ (2)	$ (2)
Related to real estate joint ventures' statements of financial position						
Items not affecting currently reported cash flows						
Recognition of gain initially deferred on our real estate initially contributed	**—**	**8**	**8**	—	—	—
Construction credit facilities financing costs charged by us and other *(Note 6)*	**1**	**—**	**1**	3	—	3
Cash flows in the current reporting period						
Construction credit facilities						
Amounts advanced	**33**	**—**	**33**	44	—	44
Amounts repaid	**(63)**	**—**	**(63)**	(95)	—	(95)
Financing costs paid to us	**(1)**	**—**	**(1)**	(3)	—	(3)
Repayment of funds advanced	**(18)**	**—**	**(18)**	—	—	—
Funds we contributed	**—**	**—**	**—**	—	6	6
Funds repaid to us and earnings distributed	**—**	**(21)**	**(21)**	—	—	—
Net increase (decrease)	**(48)**	**20**	**(28)**	(51)	4	(47)
Real estate joint ventures carrying amounts						
Balance, beginning of period	**69**	**25**	**94**	120	21	141
Valuation provision	**—**	**(15)**	**(15)**	—	—	—
Balance, end of period	**$ 21**	**$ 30**	**$ 51**	$ 69	$ 25	$ 94

(1) Loans and receivables are included in our Consolidated statements of financial position as Real estate joint venture advances and are comprised of advances under construction credit facilities (see *(d)*) and, prior to its repayment during the three-month period ended September 30, 2016, an $18 mortgage on the TELUS Garden residential condominium tower.
(2) We account for our interests in the real estate joint ventures using the equity method of accounting.
(3) As the real estate joint ventures are partnerships, no provision for income taxes of the partners is made in determining the real estate joint ventures' net income (loss) and comprehensive income (loss); provision for income taxes is made in determining the comprehensive income (loss) attributable to us.

During the year ended December 31, 2016, the TELUS Garden real estate joint venture recognized $11 million (2015 — $6 million) of revenue from our TELUS Garden office tenancy; of this amount, one-half is due to our economic interest in the real estate joint venture and one-half is due to our partner's economic interest in the real estate joint venture.

(d) Commitments and contingent liabilities

Construction commitments

The TELUS Sky real estate joint venture is expected to spend a total of approximately $400 million on the construction of a mixed-use tower. As at December 31, 2016, the real estate joint venture's construction-related contractual commitments were approximately $121 million through to 2018 (2015 — $124 million through to 2018).

Construction credit facilities

The TELUS Sky real estate joint venture has a credit agreement with three Canadian financial institutions (as 66-2/3% lender) and TELUS Corporation (as 33-1/3% lender) to provide $342 million of construction financing for the project. The TELUS Garden real estate joint venture had a credit agreement with two Canadian financial institutions (as 50% lender) and TELUS Corporation (as 50% lender) to provide $136 million of construction financing for the residential project as at December 31, 2015; as at December 31, 2016, all outstanding amounts had been repaid.

The construction credit facilities contain customary real estate construction financing representations, warranties and covenants and are secured by demand debentures constituting first fixed and floating charge mortgages over the underlying real estate assets. The construction credit facilities are available by way of bankers' acceptance or prime loan and bear interest at rates in line with similar construction financing facilities.

As at December 31 (millions)	Note	2016	2015
Construction credit facilities commitment — TELUS Corporation			
Undrawn	*4(c)*	**$ 93**	$ 131
Advances		**21**	51
		114	182
Construction credit facilities commitment — other		**228**	296
		$ 342	$ 478

notes to consolidated financial statements

22 short-term borrowings

On July 26, 2002, one of our subsidiaries, TELUS Communications Inc., entered into an agreement with an arm's-length securitization trust associated with a major Schedule I bank under which it is able to sell an interest in certain trade receivables up to a maximum of $500 million (2015 — $500 million). This revolving-period securitization agreement term ends December 31, 2018, and it requires minimum cash proceeds of $100 million from monthly sales of interests in certain trade receivables. TELUS Communications Inc. is required to maintain at least a BB (2015 — BB) credit rating by Dominion Bond Rating Service or the securitization trust may require the sale program to be wound down prior to the end of the term.

When we sell our trade receivables, we retain reserve accounts, which are retained interests in the securitized trade receivables, and servicing rights. As at December 31, 2016, we had sold to the trust (but continued to recognize) trade receivables of $116 million (2015 — $124 million). Short-term borrowings of $100 million (2015 — $100 million) are comprised of amounts advanced to us by the arm's-length securitization trust pursuant to the sale of trade receivables.

The balance of short-term borrowings (if any) are comprised of amounts drawn on our bilateral bank facilities.

23 accounts payable and accrued liabilities

As at December 31 (millions)	2016	2015
Accrued liabilities	**$ 1,013**	$ 843
Payroll and other employee related liabilities	**460**	410
Restricted stock units liability	**55**	58
	1,528	1,311
Trade accounts payable	**578**	476
Interest payable	**144**	134
Other	**80**	69
	$ 2,330	$ 1,990

24 advance billings and customer deposits

As at December 31 (millions)	2016	2015
Advance billings	**$ 697**	$ 706
Deferred customer activation and connection fees	**17**	19
Customer deposits	**15**	19
Regulatory deferral accounts	**8**	16
	$ 737	$ 760

25 provisions

(millions)	Asset retirement obligation	Employee related	Other	Total
As at January 1, 2015	$ 320	$ 41	$ 107	$ 468
Additions [1]	5	153	85	243
Use	(9)	(81)	(45)	(135)
Reversal	(10)	(4)	(4)	(18)
Interest effect [2]	71	—	1	72
As at December 31, 2015	377	109	144	630
Additions [1]	**15**	**113**	**71**	**199**
Use	**(9)**	**(141)**	**(105)**	**(255)**
Reversal	**—**	**(4)**	**(8)**	**(12)**
Interest effect [2]	**(44)**	**—**	**1**	**(43)**
As at December 31, 2016	**$ 339**	**$ 77**	**$ 103**	**$ 519**
Current	$ 19	$ 109	$ 69	$ 197
Non-current	358	—	75	433
As at December 31, 2015	$ 377	$ 109	$ 144	$ 630
Current	**$ 11**	**$ 76**	**$ 37**	**$ 124**
Non-current	**328**	**1**	**66**	**395**
As at December 31, 2016	**$ 339**	**$ 77**	**$ 103**	**$ 519**

(1) For the year ended December 31, 2016, employee related additions are net of share-based compensation of $4 (2015 — $7).

(2) The difference of $(55) (2015 — $60) between the interest effect in this table and the amount disclosed in *Note 8* is in respect of the change in the discount rates applicable to the provision, such difference being included in the cost of the associated asset(s) by way of being included with (netted against) the additions detailed in *Note 17*.

notes to consolidated financial statements

Asset retirement obligation

We establish provisions for liabilities associated with the retirement of property, plant and equipment when those obligations result from the acquisition, construction, development and/or normal operation of the assets. We expect that the cash outflows in respect of the balance accrued as at the financial statement date will occur proximate to the dates these assets are retired.

Employee related

The employee related provisions are largely in respect of restructuring activities (as discussed further in *Note 15(b)*). The timing of the cash outflows in respect of the balance accrued as at the financial statement date is substantially short-term in nature.

Other

The provisions for other include: legal claims; non-employee related restructuring activities (as discussed further in *Note 15*); and written put options, contract termination costs and onerous contracts related to business acquisitions. Other than as set out following, we expect that the cash outflows in respect of the balance accrued as at the financial statement date will occur over an indeterminate multi-year period.

As discussed further in *Note 29*, we are involved in a number of legal claims and we are aware of certain other possible legal claims. In respect of legal claims, we establish provisions, when warranted, after taking into account legal assessments, information presently available, and the expected availability of recourse. The timing of cash outflows associated with legal claims cannot be reasonably determined.

In connection with business acquisitions, we have established provisions for contingent consideration, contract termination costs and onerous contracts acquired. In respect of contract termination costs and onerous contracts acquired, cash outflows are expected to occur through mid-2018.

26 long-term debt

(a) Details of long-term debt

As at December 31 (millions)	Note	2016	2015
TELUS Corporation notes	*(b)*	**$ 11,367**	$ 11,164
TELUS Corporation commercial paper	*(c)*	**613**	256
TELUS Communications Inc. debentures	*(e)*	**619**	618
TELUS International (Cda) Inc. credit facility	*(f)*	**332**	—
Long-term debt		**$ 12,931**	$ 12,038
Current		**$ 1,327**	$ 856
Non-current		**11,604**	11,182
Long-term debt		**$ 12,931**	$ 12,038

(b) TELUS Corporation notes

The notes are our senior, unsecured and unsubordinated obligations and rank equally in right of payment with all of our existing and future unsecured, unsubordinated obligations, are senior in right of payment to all of our existing and future subordinated indebtedness, and are effectively subordinated to all existing and future obligations of, or guaranteed by, our subsidiaries. The indentures governing the notes contain certain covenants which, among other things, place limitations on our ability and the ability of certain of our subsidiaries to: grant security in respect of indebtedness; enter into sale-leaseback transactions; and incur new indebtedness.

					Principal face amount		Redemption present value spread	
Series [1]	Issued	Maturity	Issue price	Effective interest rate [2]	Originally issued	Outstanding at financial statement date	Basis points	Cessation date
4.95% Notes, Series CD	March 2007	March 2017	$ 999.53	4.96%	$ 700 million	$ 700 million	24 [3]	N/A
5.05% Notes, Series CG [4]	December 2009	December 2019	$ 994.19	5.13%	$ 1.0 billion	$ 1.0 billion	45.5 [3]	N/A
5.05% Notes, Series CH [4]	July 2010	July 2020	$ 997.44	5.08%	$ 1.0 billion	$ 1.0 billion	47 [3]	N/A
3.65% Notes, Series CI [4]	May 2011	May 2016	$ 996.29	3.73%	$ 600 million	$ NIL	29.5 [3]	N/A
3.35% Notes, Series CJ [4]	December 2012	March 2023	$ 998.83	3.36%	$ 500 million	$ 500 million	40 [5]	Dec. 15, 2022
3.35% Notes, Series CK [4]	April 2013	April 2024	$ 994.35	3.41%	$ 1.1 billion	$ 1.1 billion	36 [5]	Jan. 2, 2024
4.40% Notes, Series CL [4]	April 2013	April 2043	$ 997.68	4.41%	$ 600 million	$ 600 million	47 [5]	Oct. 1, 2042
3.60% Notes, Series CM [4]	November 2013	January 2021	$ 997.15	3.65%	$ 400 million	$ 400 million	35 [3]	N/A
5.15% Notes, Series CN [4]	November 2013	November 2043	$ 995.00	5.18%	$ 400 million	$ 400 million	50 [5]	May 26, 2043

Series [1]	Issued	Maturity	Issue price	Effective interest rate [2]	Principal face amount		Redemption present value spread	
					Originally issued	Outstanding at financial statement date	Basis points	Cessation date
3.20% Notes, Series CO [4]	April 2014	April 2021	$ 997.39	3.24%	$ 500 million	$ 500 million	30 [5]	Mar. 5, 2021
4.85% Notes, Series CP [4]	Multiple [6]	April 2044	$ 987.91 [6]	4.93% [6]	$ 500 million [6]	$ 900 million [6]	46 [5]	Oct. 5, 2043
3.75% Notes, Series CQ [4]	September 2014	January 2025	$ 997.75	3.78%	$ 800 million	$ 800 million	38.5 [5]	Oct. 17, 2024
4.75% Notes, Series CR [4]	September 2014	January 2045	$ 992.91	4.80%	$ 400 million	$ 400 million	51.5 [5]	July 17, 2044
1.50% Notes, Series CS [4]	March 2015	March 2018	$ 999.62	1.51%	$ 250 million	$ 250 million	N/A [7]	N/A
2.35% Notes, Series CT [4]	March 2015	March 2022	$ 997.31	2.39%	$ 1.0 billion	$ 1.0 billion	35.5 [5]	Feb. 28, 2022
4.40% Notes, Series CU [4]	March 2015	January 2046	$ 999.72	4.40%	$ 500 million	$ 500 million	60.5 [5]	July 29, 2045
3.75% Notes, Series CV [4]	December 2015	March 2026	$ 992.14	3.84%	$ 600 million	$ 600 million	53.5 [5]	Dec. 10, 2025
2.80% U.S. Dollar Notes [4, 8]	September 2016	February 2027	U.S.$ 991.89	2.89%	U.S.$ 600 million	U.S.$ 600 million	20 [9]	Nov. 16, 2026

(1) Interest is payable semi-annually.
(2) The effective interest rate is that which the notes would yield to an initial debt holder if held to maturity.
(3) The notes are redeemable at our option, in whole at any time, or in part from time to time, on not fewer than 30 and not more than 60 days' prior notice. The redemption price is equal to the greater of (i) the present value of the notes discounted at the Government of Canada yield plus the redemption present value spread, or (ii) 100% of the principal amount thereof. In addition, accrued and unpaid interest, if any, will be paid to the date fixed for redemption.
(4) This series of notes requires us to make an offer to repurchase the notes at a price equal to 101% of their principal amount plus accrued and unpaid interest to the date of repurchase upon the occurrence of a change in control triggering event, as defined in the supplemental trust indenture.
(5) At any time prior to the respective maturity dates set out in the table, the notes are redeemable at our option, in whole at any time, or in part from time to time, on not fewer than 30 and not more than 60 days' prior notice. The redemption price is equal to the greater of (i) the present value of the notes discounted at the Government of Canada yield plus the redemption present value spread calculated over the period to maturity, other than in the case of the Series CT and Series CU notes, where it is calculated over the period to the redemption present value spread cessation date, or (ii) 100% of the principal amount thereof. In addition, accrued and unpaid interest, if any, will be paid to the date fixed for redemption. On or after the respective redemption present value spread cessation dates set out in the table, the notes are redeemable at our option, in whole but not in part, on not fewer than 30 and not more than 60 days' prior notice, at redemption prices equal to 100% of the principal amount thereof.
(6) $500 million of 4.85% Notes, Series CP were issued in April 2014 at an issue price of $998.74 and an effective interest rate of 4.86%. This series of notes was reopened in December 2015 and a further $400 million of notes were issued at an issue price of $974.38 and an effective interest rate of 5.02%.
(7) The notes are not redeemable at our option, other than in the event of certain changes in tax laws.
(8) We have entered into a foreign exchange derivative (a cross currency interest rate exchange agreement) which effectively converted the principal payments and interest obligations to Canadian dollar obligations with a fixed interest rate of 2.95% and an issued and outstanding amount of $792 million (reflecting a fixed exchange rate of $1.3205).
(9) At any time prior to the maturity date set out in the table, the notes are redeemable at our option, in whole at any time, or in part from time to time, on not fewer than 30 and not more than 60 days' prior notice. The redemption price is equal to the greater of (i) the present value of the notes discounted at the U.S. Adjusted Treasury Rate plus the redemption present value spread calculated over the period to the redemption present value spread cessation date, or (ii) 100% of the principal amount thereof. In addition, accrued and unpaid interest, if any, will be paid to the date fixed for redemption. On or after the redemption present value spread cessation date set out in the table, the notes are redeemable at our option, in whole but not in part, on not fewer than 30 and not more than 60 days' prior notice, at a redemption price equal to 100% of the principal amount thereof.

(c) TELUS Corporation commercial paper

TELUS Corporation has an unsecured commercial paper program, which is backstopped by our $2.25 billion syndicated credit facility (see *(d)*) and is to be used for general corporate purposes, including capital expenditures and investments. This program enables us to issue commercial paper, subject to conditions related to debt ratings, up to a maximum aggregate amount at any one time of $1.4 billion (2015 — $1.4 billion). Foreign currency forward contracts are used to manage currency risk arising from issuing commercial paper denominated in U.S. dollars. Commercial paper debt is due within one year and is classified as a current portion of long-term debt, as the amounts are fully supported, and we expect that they will continue to be supported, by the revolving credit facility, which has no repayment requirements within the next year. As at December 31, 2016, we had $613 million of commercial paper outstanding, all of which was denominated in U.S. dollars (U.S.$456 million), with an effective weighted average interest rate of 1.21%, maturing through March 2017.

(d) TELUS Corporation credit facility

As at December 31, 2016, TELUS Corporation had an unsecured revolving $2.25 billion bank credit facility, expiring on May 31, 2021, with a syndicate of financial institutions, which is to be used for general corporate purposes, including the backstopping of commercial paper.

TELUS Corporation's credit facility bears interest at prime rate, U.S. Dollar Base Rate, a bankers' acceptance rate or London interbank offered rate (LIBOR) (all such terms as used or defined in the credit facility), plus applicable margins. The credit facility contains customary representations, warranties and covenants, including two financial quarter-end financial ratio tests. These tests are that our net debt to operating cash flow ratio must not exceed 4.00:1.00 and our operating cash flow to interest expense ratio must not be less than 2.00:1.00, each as defined under the credit facility.

Continued access to TELUS Corporation's credit facility is not contingent on TELUS Corporation maintaining a specific credit rating.

As at December 31 (millions)	2016	2015
Net available	**$ 1,637**	$ 1,994
Backstop of commercial paper	**613**	256
Gross available	**$ 2,250**	$ 2,250

We had $210 million of letters of credit outstanding as at December 31, 2016 (2015 — $202 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.

(e) TELUS Communications Inc. debentures

The Series 3 and 5 Debentures were issued by a predecessor corporation of TELUS Communications Inc., BC TEL, under a Trust Indenture dated May 31, 1990. The Series B Debentures were issued by a predecessor corporation of TELUS Communications Inc., AGT Limited, under a Trust Indenture dated August 24, 1994, and a supplemental trust indenture dated September 22, 1995.

Series [1]	Issued	Maturity	Issue price	Principal face amount: Originally issued	Principal face amount: Outstanding at financial statement date	Redemption present value spread: Basis points
10.65% Debentures, Series 3	June 1991	June 2021	$ 998.00	$ 175 million	$ 175 million	N/A (non-redeemable)
9.65% Debentures, Series 5 [2]	April 1992	April 2022	$ 972.00	$ 150 million	$ 249 million	N/A (non-redeemable)
8.80% Debentures, Series B	September 1995	September 2025	$ 995.10	$ 200 million	$ 200 million	15 [3]

(1) Interest is payable semi-annually.
(2) Series 4 debentures were exchangeable, at the holder's option, effective on April 8 of any year during the four-year period from 1996 to 1999 for Series 5 debentures; $99 million of Series 4 debentures were exchanged for Series 5 debentures.
(3) At any time prior to the maturity date set out in the table, the debentures are redeemable at our option, in whole at any time, or in part from time to time, on not less than 30 days' prior notice. The redemption price is equal to the greater of (i) the present value of the debentures discounted at the Government of Canada yield plus the redemption present value spread, or (ii) 100% of the principal amount thereof. In addition, accrued and unpaid interest, if any, will be paid to the date fixed for redemption.

The debentures became obligations of TELUS Communications Inc. pursuant to an amalgamation on January 1, 2001, are not secured by any mortgage, pledge or other charge and are governed by certain covenants, including a negative pledge and a limitation on issues of additional debt, subject to a debt to capitalization ratio and an interest coverage test. Effective June 12, 2009, TELUS Corporation guaranteed the payment of the debentures' principal and interest.

(f) TELUS International (Cda) Inc. credit facility

As at December 31, 2016, TELUS International (Cda) Inc. had a U.S.$330 million bank credit facility, secured by its assets, expiring on May 31, 2021, with a syndicate of financial institutions. The credit facility is comprised of a U.S.$115 million revolving component and a U.S.$215 million term loan component. The credit facility is non-recourse to TELUS Corporation. As at December 31, 2016, $340 million ($332 million net of unamortized issue costs) was outstanding, all of which was denominated in U.S. dollars (U.S.$253 million), with a weighted average interest rate of 2.49%.

TELUS International (Cda) Inc.'s credit facility bears interest at prime rate, U.S. Dollar Base Rate, a bankers' acceptance rate or London interbank offered rate (LIBOR) (all such terms as used or defined in the credit facility), plus applicable margins. The credit facility contains customary representations, warranties and covenants, including two financial quarter-end financial ratio tests. These tests are that TELUS International (Cda) Inc.'s net debt to operating cash flow ratio must not exceed 3.75:1.00 through June 30, 2017, and 3.25:1.00 subsequently, and its operating cash flow to debt service (interest and scheduled principal repayment) ratio must not be less than 1.50:1.00, all as defined in the credit facility.

The term loan is subject to an amortization schedule which requires that 5% of the principal advanced be repaid each year of the term of the agreement, with the balance due at maturity.

(g) Long-term debt maturities

Anticipated requirements to meet long-term debt repayments, calculated upon such long-term debts owing as at December 31, 2016, for each of the next five fiscal years are as follows:

Long-term debt denominated in	Cdn. dollars	U.S. dollars				
			Derivative liability			
Years ending December 31 (millions)	Debt	Debt	(Receive) [1]	Pay	Total	Total
2017	$ 700	$ 627	$ (623)	$ 622	$ 626	$ 1,326
2018	250	14	—	—	14	264
2019	1,000	14	—	—	14	1,014
2020	1,000	14	—	—	14	1,014
2021	1,075	283	—	—	283	1,358
Thereafter	7,249	806	(806)	792	792	8,041
Future cash outflows in respect of long-term debt principal repayments	11,274	1,758	(1,429)	1,414	1,743	13,017
Future cash outflows in respect of associated interest and like carrying costs [2]	5,518	272	(227)	233	278	5,796
Undiscounted contractual maturities (*Note 4(c)*)	$ 16,792	$ 2,030	$ (1,656)	$ 1,647	$ 2,021	$ 18,813

(1) Where applicable, principal-related cash flows reflect foreign exchange rates at December 31, 2016.
(2) Future cash outflows in respect of associated interest and like carrying costs for commercial paper and amounts drawn under our credit facilities (if any) have been calculated based upon the rates in effect at December 31, 2016.

27 other long-term liabilities

As at December 31 (millions)	Note	2016	2015

Pension and other post-retirement liabilities	*14(a)*	**$ 480**	$ 451
Other		**170**	150
Restricted stock unit and deferred share unit liabilities		**62**	57
		712	658
Deferred customer activation and connection fees		**24**	30
		$ 736	$ 688

28 Common Share capital

(a) General

Our authorized share capital is as follows:

As at December 31	2016	2015
First Preferred Shares	**1 billion**	1 billion
Second Preferred Shares	**1 billion**	1 billion
Common Shares	**2 billion**	2 billion

Only holders of Common Shares may vote at our general meetings, with each holder of Common Shares entitled to one vote per Common Share held at all such meetings so long as not less than 66-2/3% of the issued and outstanding Common Shares are owned by Canadians. With respect to priority in payment of dividends and in the distribution of assets in the event of our liquidation, dissolution or winding-up, whether voluntary or involuntary, or any other distribution of our assets among our shareholders for the purpose of winding up our affairs, preferences are as follows: First Preferred Shares; Second Preferred Shares; and finally Common Shares.

As at December 31, 2016, approximately 48 million Common Shares were reserved for issuance, from Treasury, under a share option plan (see *Note 13(d)*).

(b) Purchase of Common Shares for cancellation pursuant to normal course issuer bid

As referred to in *Note 3*, we may purchase a portion of our Common Shares for cancellation pursuant to normal course issuer bids in order to maintain or adjust our capital structure. During the years ended December 31, 2016 and 2015, we purchased a number of our Common Shares for cancellation, through the facilities of the Toronto Stock Exchange, the New York Stock Exchange and/or alternative trading platforms or otherwise as may be permitted by applicable securities laws and regulations, including privately negotiated block purchases, as set out in the following table.

	2016		2015	
Years ended December 31 (millions)	Common Shares	Cost	Common Shares	Cost
Normal course issuer bid period:				
October 1, 2014 — September 30, 2015 (bid maximum reached on September 14, 2015)	**—**	**$ —**	9	$ 385
September 15, 2015 — September 14, 2016	**3**	**130**	7	250
September 30, 2016 — September 29, 2017 [1]	**1**	**35**	—	—
Total excluding employee benefit plan trust transactions	**4**	**165**	16	635
Employee benefit plan trust transactions	**—**	**4**	—	—
	4	**$ 169**	16	$ 635

(1) On September 28, 2016, we announced that we had received approval for a normal course issuer bid to purchase and cancel up to 8 of our Common Shares (up to a maximum amount of $250) from September 30, 2016, to September 29, 2017; in lieu of purchasing and cancelling shares, an employee benefit plan trust could purchase up to 25% of the approved normal course issuer bid amount for distribution to non-executive employees pursuant to partial payment of the immediately vesting, transformative compensation expense (see *Notes 7, 13(a)* and *15(a)*). Transactions with the employee benefit plan trust are presented in the Consolidated statements of changes in owners' equity as treasury share transactions. Additionally, we have entered into an automatic share purchase plan with a broker for the purpose of permitting us to purchase our Common Shares under the normal course issuer bid at times when we would not be permitted to trade in our own Common Shares during internal blackout periods, including during regularly scheduled quarterly blackout periods. Such purchases are determined by the broker in its sole discretion based on parameters we have established. We record a liability and charge share capital and retained earnings for purchases that may occur during such blackout periods based upon the parameters of the normal course issuer bid as at the statement of financial position date.

The excess of the purchase price over the average stated value of Common Shares purchased for cancellation is charged to retained earnings. We cease to consider the Common Shares to be outstanding on the date of our purchase of the Common Shares, although the actual cancellation of the Common Shares by the transfer agent and registrar occurs on a timely basis on a date shortly thereafter.

29 contingent liabilities

(a) Claims and lawsuits

General

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 and 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, 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 enumerated following.

Certified class actions

Certified class actions against us include the following:

System access fee class actions

In 2004 a class action was brought in Saskatchewan against a number of past and present wireless service providers, including us, which alleged breach of contract, misrepresentation, unjust enrichment and violation of competition, trade practices and consumer protection legislation across Canada in connection with the collection of system access fees. In September 2007, a national opt-in class was certified by the Saskatchewan Court of Queen's Bench in relation to the unjust enrichment claim only; all appeals of this certification decision have now been exhausted. In February 2008, the Saskatchewan Court of Queen's Bench granted an order amending the certification order so as to exclude from the class of plaintiffs any customer bound by an arbitration clause with us. All appeals of this decision have now been exhausted. In addition to the 2004 class action brought in Saskatchewan, fourteen additional class actions were brought against us and other wireless service providers in the period 2004 to date in connection with the collection of system access fees in nine provinces. One of those actions, filed in Alberta in 2013, was a nullity. A second action, filed in British Columbia in 2004, was dismissed against us in January 2013, with an appeal of that decision being dismissed in March 2015. During the year ended December 31, 2016, developments in the remaining twelve additional class actions occurred which will lead to their final resolution:

- Seven were discontinued pursuant to terms of settlement.
- The plaintiff was denied leave to appeal by the Supreme Court of Canada in relation to three additional class actions dismissed as an abuse of process by the Courts of Appeal of Alberta, Manitoba and Nova Scotia.
- The plaintiff was denied leave to appeal by the Supreme Court of Canada in relation to a British Columbia action in respect of which the Court of Appeal had denied certification, ending this matter.
- The plaintiff agreed to dismiss an Alberta action, and that dismissal has now been implemented.

As a result, none of the additional fourteen class actions has been certified and all have been dismissed, stayed or discontinued, or are in the process of being dismissed, stayed or discontinued.

Per minute billing class action

In 2008 a class action was brought in Ontario against us alleging breach of contract, breach of the Ontario *Consumer Protection Act*, breach of the *Competition Act* and unjust enrichment, in connection with our practice of "rounding up" wireless airtime to the nearest minute and charging for the full minute. The action sought certification of a national class. In November 2014, an Ontario class only was certified by the Ontario Superior Court of Justice in relation to the breach of contract, breach of *Consumer Protection Act*, and unjust enrichment claims; all appeals of the certification decision have now been exhausted. At the same time, the Ontario Superior Court of Justice declined to stay the claims of our business customers notwithstanding an arbitration clause in our customer service agreements with those customers. This latter decision is under appeal; the appeal hearing was held in September 2016 and we are awaiting the Court's decision.

Unilateral rate amendments class actions

In 2012 a class action was brought against us in Quebec alleging that we improperly unilaterally amended customer contracts to increase various wireless rates for optional services, contrary to the Quebec *Consumer Protection Act* and the *Civil Code of Quebec*. On June 13, 2013, the Superior Court of Quebec authorized this matter as a class action. This class action follows on a non-material 2008 class action brought in Quebec alleging that we improperly unilaterally amended customer contracts to charge for incoming SMS messages. On April 8, 2014, judgment was granted in part against TELUS in the 2008 class action. We had appealed that judgment, but have now settled both the 2008 and 2012 class actions. This settlement received court approval in June 2016, is being implemented and has been fully accounted for in our financial statements.

Call set-up time class actions

In 2005 a class action was brought against us in British Columbia alleging that we have engaged in deceptive trade practices in charging for incoming calls from the moment the caller connects to the network, and not from the moment the incoming call is connected to the recipient. In 2011, the Supreme Court of Canada upheld a stay of all of the causes of action advanced by the plaintiff in this class action, with one exception, based on the arbitration clause that was included in TELUS' customer service agreements. The sole exception was the cause of action based on deceptive or unconscionable practices under the British Columbia *Business Practices and Consumer Protection Act*, which the Supreme Court of Canada declined to stay. In January 2016, the British Columbia Supreme Court certified this class action in relation to the claim under the *Business Practices and Consumer Protection Act*. The class is limited to residents of British Columbia who contracted wireless services with TELUS in the period from January 21, 1999, to April 2010. We have appealed the certification decision and the appeal hearing is expected to occur in May 2017. A companion class action was brought against us in Alberta at the same time as the British Columbia class action. The Alberta class action duplicates the allegations in the British Columbia action, but has not proceeded to date and is not certified.

Uncertified class actions

Uncertified class actions against us include:

9-1-1 class actions

In 2008 a class action was brought in Saskatchewan against us and other Canadian telecommunications carriers alleging that, among other matters, we failed to provide proper notice of 9-1-1 charges to the public, have been deceitfully passing them off as government charges, and have charged 9-1-1 fees to customers who reside in areas where 9-1-1 service is not available. The plaintiffs advance causes of action in breach of contract, misrepresentation and false advertising and seek certification of a national class. A virtually identical class action was filed in Alberta at

the same time, but the Alberta Court of Queen's Bench declared that class action expired against us as of 2009. No steps were taken in this proceeding in 2016.

Electromagnetic field radiation class actions

In 2013 a class action was brought in British Columbia against us, other telecommunications carriers, and cellular telephone manufacturers alleging that prolonged usage of cellular telephones causes adverse health effects. The British Columbia class action alleges: strict liability; negligence; failure to warn; breach of warranty; breach of competition, consumer protection and trade practices legislation; negligent misrepresentation, breach of a duty not to market the products in question; and waiver of tort. Certification of a national class is sought, but the action has not proceeded to date and no steps were taken in 2016. In 2015 a class action was brought in Quebec against us, other telecommunications carriers, and various other defendants alleging that electromagnetic field radiation causes adverse health effects, contravenes the Quebec *Environmental Quality Act*, creates a nuisance, and constitutes an abuse of right pursuant to the Quebec *Civil Code*. This action has not yet proceeded to an authorization hearing.

Public Mobile class actions

In 2014 class actions were brought against us in Quebec and Ontario on behalf of Public Mobile's customers, alleging that changes to the technology, services and rate plans made by us contravene our statutory and common law obligations. In particular, the Quebec action alleges that our actions constitute a breach of the Quebec *Consumer Protection Act*, the Quebec *Civil Code*, and the Ontario *Consumer Protection Act*. It has not yet proceeded to an authorization hearing. The Ontario class action alleges negligence, breach of express and implied warranty, breach of the *Competition Act*, unjust enrichment, and waiver of tort. No steps have been taken in this proceeding since it was filed and served.

Promotional pricing class action

In 2016 a class action was brought in Quebec against us, other telecommunications carriers, and various other defendants alleging that we violated the Quebec *Consumer Protection Act* by enticing Quebec consumer customers to contract with us by providing them goods or services at a reduced price, or free as a trial, for a fixed period and, at the end of the fixed period, charging them the regular price if they did not take steps to either renegotiate or cancel their contract with us. This action has not yet proceeded to an authorization hearing.

Handset subsidy class action

In 2016 a class action was brought in Quebec against us and other telecommunications carriers alleging that we breached the Quebec *Consumer Protection Act* and the *Civil Code of Quebec* by making false or misleading representations relating to the handset subsidy provided to our wireless customers, and by charging our wireless customers inflated rate plan prices and termination fees higher than those permitted under the *Act*. This action has not yet proceeded to an authorization hearing.

Intellectual property infringement claims

Claims and possible claims received by us include:

Optik TV patent infringement claim

A patent infringement claim was filed in Ontario in 2014 alleging that TELUS' IPTV products, including its Optik TV product that utilizes the MediaRoom platform and its previous TELUS TV product that utilized the Minerva platform, infringe two third-party patents. In late 2016, the plaintiff agreed to abandon its claims relating to the TELUS TV product and relating to one of the two patents that it had asserted. This matter is scheduled to proceed to trial on liability issues only in April 2017.

4G LTE network patent infringement claim

A patent infringement claim was filed in Ontario in 2016 alleging that communications between devices, including cellular telephones, and base stations on TELUS' 4G LTE network infringe three third-party patents. No trial date has yet been set for this matter.

Summary

We believe that we have good defences to the above matters. Should the ultimate resolution of these matters differ from management's assessments and assumptions, a material adjustment to our financial position and the results of our operations, including cash flows, could result. Management's assessments and assumptions include that reliable estimates of any such exposure cannot be made considering the continued uncertainty about: the nature of the damages

that may be sought by the plaintiffs; the causes of action that are being, or may ultimately be, pursued; and, in the case of the uncertified class actions, the causes of action that may ultimately be certified.

(b) Indemnification obligations

In the normal course of operations, we provide indemnification in conjunction with certain transactions. The terms of these indemnification obligations range in duration. These indemnifications would require us to compensate the indemnified parties for costs incurred as a result of failure to comply with contractual obligations, or litigation claims or statutory sanctions, or damages that may be suffered by an indemnified party. In some cases, there is no maximum limit on these indemnification obligations. The overall maximum amount of an indemnification obligation will depend on future events and conditions and therefore cannot be reasonably estimated. Where appropriate, an indemnification obligation is recorded as a liability. Other than obligations recorded as liabilities at the time of such transactions, historically we have not made significant payments under these indemnifications.

See *Note 21(d)* for details regarding our guarantees to the real estate joint ventures.

As at December 31, 2016, we had no liability recorded in respect of our indemnification obligations.

(c) Concentration of labour

In 2015, we commenced collective bargaining with the Telecommunications Workers Union, United Steel Workers Local Union 1944, to renew the collective agreement that expired on December 31, 2015; the expired contract covered approximately 40% of our Canadian workforce as at December 31, 2015.

On October 3, 2016, the Telecommunications Workers Union, United Steel Workers Local Union 1944 and ourselves announced that the two parties had reached a tentative five-year collective agreement which would be subject to ratification by members of the Telecommunications Workers Union, United Steel Workers Local Union 1944. On November 23, 2016, the Telecommunications Workers Union, United Steel Workers Local Union 1944 announced that its members had voted to accept the October 3, 2016, tentative agreement. The terms and conditions of the new collective agreement are effective from November 27, 2016, to December 31, 2021, and cover approximately 37% of our Canadian workforce as at December 31, 2016.

In December 2016, a new collective agreement between the Syndicat des agents de maîtrise de TELUS and ourselves was ratified by a majority of its members. This collective agreement will take effect on April 1, 2017, and will expire on March 31, 2022. A new collective agreement between the Syndicat québécois des employés de TELUS and ourselves was also ratified in December 2016. The new agreement is effective from January 1, 2018 to December 31, 2022. The current Syndicat québécois des employés de TELUS collective agreement will remain in effect until it expires on December 31, 2017.

30 related party transactions

(a) Transactions with key management personnel

Our key management personnel have authority and responsibility for overseeing, planning, directing and controlling our activities and consist of our Board of Directors and our Executive Leadership Team.

Total compensation expense for key management personnel, and the composition thereof, is as follows:

Years ended December 31 (millions)	2016	2015
Short-term benefits	**$ 12**	$ 13
Post-employment pension [1] and other benefits	**7**	14
Termination benefits	**—**	8
Share-based compensation [2]	**35**	30
	$ 54	$ 65

(1) Our Executive Leadership Team members are either: members of our *Pension Plan for Management and Professional Employees of TELUS Corporation* and non-registered, non-contributory supplementary defined benefit pension plans; or members of one of our defined contribution pension plans.

(2) For the year ended December 31, 2016, share-based compensation expense is net of $2 (2015 — $1) of the effects of derivatives used to manage share-based compensation costs (*Note 13(b)*). For the year ended December 31, 2016, $4 (2015 — $(6)) is included in share-based compensation expense representing restricted stock unit and deferred share unit expense arising from changes in the fair market value of the corresponding Common Shares, which is not affected by derivatives used to manage share-based compensation costs. For the year ended December 31, 2016, share-based compensation expense of $4 (2015 — $7) was included in restructuring costs (*Note 15*).

As disclosed in *Note 13*, we made initial awards of share-based compensation in 2016 and 2015, including, as set out in the following table, to our key management personnel. As most of these awards are cliff-vesting or graded-vesting and have multi-year requisite service periods, the expense will be recognized ratably over a period of years and thus only a portion of the 2016 and 2015 awards are included in the amounts in the table above.

	2016			2015		
Years ended December 31 ($ in millions)	Number of restricted stock units	Notional value [1]	Grant-date fair value [1]	Number of restricted stock units	Notional value [1]	Grant-date fair value [1]
Awarded in period	**585,759**	**$ 23**	**$ 15**	595,674	$ 26	$ 30

(1) Notional value is determined by multiplying the Common Share price at the time of award by the number of units awarded. The grant-date fair value differs from the notional value because the fair values of some awards have been determined using a Monte Carlo simulation (see *Note 13(b)*).

During the year ended December 31, 2016, key management personnel (including retirees) exercised 169,522 share options (2015 — 98,702 share options) that had an intrinsic value of $4 million (2015 — $2 million) at the time of exercise, reflecting a weighted average price at the date of exercise of $42.47 (2015 — $42.04).

The liability amounts accrued for share-based compensation awards to key management personnel are as follows:

As at December 31 (millions)	2016	2015
Restricted stock units	**$ 25**	$ 21
Deferred share units [1]	**32**	29
	$ 57	$ 50

(1) Our *Directors' Deferred Share Unit Plan* provides that, in addition to his or her annual equity grant of deferred share units, a director may elect to receive his or her annual retainer and meeting fees in deferred share units, Common Shares or cash. Deferred share units entitle directors to a specified number of, or a cash payment based on the value of, our Common Shares. Deferred share units are paid out when a director ceases to be a director, for any reason, at a time elected by the director in accordance with the *Directors' Deferred Share Unit Plan*; during the year ended December 31, 2016, $4 (2015 — $3) was paid out.

Employment agreements with members of the Executive Leadership Team typically provide for severance payments if an executive's employment is terminated without cause: generally 18—24 months of base salary, benefits and accrual of pension service in lieu of notice and 50% of base salary in lieu of an annual cash bonus. In the event of a change in control, Executive Leadership Team members are not entitled to treatment any different than that given to our other employees with respect to non-vested share-based compensation.

(b) Transactions with defined benefit pension plans

During the year ended December 31, 2016, we provided management and administrative services to our defined benefit pension plans; the charges for these services were on a cost recovery basis and amounted to $6 million (2015 — $7 million).

(c) Transactions with real estate joint ventures

During the years ended December 31, 2016 and 2015, we had transactions with the real estate joint ventures, which are related parties, as set out in *Note 21.*

31 additional statement of cash flow information

(a) Statements of cash flows — operating activities and investing activities

Years ended December 31 (millions)	Note	2016	2015
Net change in non-cash operating working capital			
Accounts receivable		**$ (45)**	$ 55
Inventories		**42**	(40)
Prepaid expenses		**(20)**	(22)
Accounts payable and accrued liabilities		**126**	(60)
Income and other taxes receivable and payable, net		**(128)**	202
Advance billings and customer deposits		**(28)**	7
Provisions		**(18)**	72
		$ (71)	$ 214

notes to consolidated financial statements

Years ended December 31 (millions)	Note	2016	2015
Cash payments for capital assets, excluding spectrum licences			
Capital asset additions, excluding spectrum licences			
Gross capital expenditures			
Property, plant and equipment	*17*	**$ (2,358)**	$ (2,046)
Intangible assets	*18*	**(629)**	(531)
		(2,987)	(2,577)
Additions arising from non-monetary transactions		**19**	—
Capital expenditures		**(2,968)**	(2,577)
Asset retirement obligations netted (included) in additions		**40**	(65)
		(2,928)	(2,642)
Other non-cash items included above			
Change in associated non-cash investing working capital		**231**	60
Non-cash change in asset retirement obligation		**(55)**	60
		176	120
		$ (2,752)	$ (2,522)

notes to consolidated financial statements

(b) Changes in liabilities arising from financing activities

	Year ended December 31, 2015						Year ended December 31, 2016					
		Statement of cash flows		Non-cash changes				Statement of cash flows		Non-cash changes		
(millions)	As at January 1, 2015	Issued or received	Redemptions, repayments or payments	Foreign exchange movement (Note 4(i))	Other	As at December 31, 2015	Issued or received	Redemptions, repayments or payments	Foreign exchange movement (Note 4(i))	Other	As at December 31, 2016
Dividends paid to holders of Common Shares	$ 244	$ —	$ (992)	$ —	$1,011	$ 263	**$ —**	**$ (1,070)**	**$ —**	**$1,091**	**$ 284**
Purchase of Common Shares for cancellation [1]	$ 3	$ —	$ (628)	$ —	$ 635	$ 10	**$ —**	**$ (179)**	**$ —**	**$ 169**	**$ —**
Short-term borrowings	$ 100	$ 401	$ (401)	$ —	$ —	$ 100	**$ 3**	**$ (3)**	**$ —**	**$ —**	**$ 100**
Long-term debt											
TELUS Corporation notes	$ 8,437	$ 2,732	$ —	$ —	$ (5)	$ 11,164	**$ 785**	**$ (600)**	**$ 19**	**$ (1)**	**$ 11,367**
TELUS Corporation commercial paper	130	5,461	(5,396)	61	—	256	**4,568**	**(4,181)**	**(30)**	**—**	**613**
TELUS Corporation credit facility	—	780	(780)	—	—	—	**—**	**—**	**—**	**—**	**—**

TELUS Communications Inc. debentures	743	—	(125)	—	—	618	—	—	—	1	619
TELUS International (Cda) Inc. credit facility	—	—	—	—	—	—	373	(42)	9	(8)	332
Derivatives used to manage currency risks arising from U.S. dollar-denominated long-term debt — liability (asset)	—	4,229	(4,182)	(61)	—	(14)	4,181	(4,201)	11	43	20
	9,310	13,202	(10,483)	—	(5)	12,024	9,907	(9,024)	9	35	12,951
To eliminate effect of gross settlement of derivatives used to manage currency risks arising from U.S. dollar-denominated long-term debt	—	(4,229)	4,229	—	—	—	(4,181)	4,181	—	—	—
	$ 9,310	$ 8,973	$ (6,254)	$ —	$ (5)	$ 12,024	$ 5,726	$ (4,843)	$ 9	$ 35	$ 12,951
Issue of shares by subsidiary to non-controlling interest											
Gross proceeds on share issuance							$ 302	$ —	$ —	$ (302)	$ —
Transaction costs							—	(8)	—	12	4
Income taxes charged directly to contributed surplus [2]							—	—	—	47	47
							302	(8)	—	(243)	51
To eliminate effect of gross settlement of transaction costs							(8)	8	—	—	—
							$ 294	$ —	$ —	$ (243)	$ 51

(1) Normal course issuer bid transactions including employee benefit plan trust transactions (see *Note 28(b)*).
(2) Income taxes charged directly to contributed surplus were comprised of a current income tax charge of $50 and a deferred income tax recovery of $3.

TELUS CORPORATION

Management's discussion and analysis

2016

Caution regarding forward-looking statements

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.

This Management's discussion and analysis (MD&A) including, in particular, *Section 9 General trends, outlook and assumptions*, contains forward-looking statements and forward-looking information within the meaning of applicable securities laws (collectively, forward-looking statements).

Forward-looking statements include any statements that do not refer to historical facts. They include, but are not limited to, statements about our objectives and our strategies to achieve those objectives, about our annual outlook, targets, multi-year dividend growth program, multi-year share purchase program, statements about anticipated trends regarding our business and the environment in which we operate (in particular:

Section 5 Discussion of operations and *Section 9 General trends, outlook and assumptions*), and much of our discussion regarding risk mitigation. 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, estimate, expect, intend, may, plan, predict, seek, should, strive* and *will*.

Forward-looking statements are subject to inherent risks and uncertainties and are based on assumptions about future economic conditions and courses of action, including the assumptions mentioned in *Section 9 General trends, outlook and assumptions* and *Section 10 Risks and risk management* in this MD&A. The assumptions on which our forward-looking statements are based 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.

Risks and uncertainties that could also cause actual results or events to differ materially from the forward-looking statements made herein and in other TELUS filings include, but are not limited to, competitive intensity; technological demands and disruptive changes; regulatory conditions and changes to the regulatory regime; and economic, financial and other risks, including those risks described or referred to in *Section 10 Risks and risk management* of this MD&A, which is incorporated by reference in this cautionary statement but is 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 MD&A, 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 MD&A describe our expectations and are based on our assumptions as at the date of this MD&A 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 MD&A.

Management's discussion and analysis (MD&A)
February 9, 2017

Contents

Section	Page	Subsection
1. Introduction	4	1.1 Preparation of the MD&A
	4	1.2 The environment in which we operate
	5	1.3 Highlights of 2016
	9	1.4 Performance scorecard (key performance measures)
2. Core business and strategy	12	2.1 Core business
	12	2.2 Strategic imperatives
3. Corporate priorities	14	
4. Capabilities	16	4.1 Principal markets addressed and competition
	18	4.2 Operational resources
	19	4.3 Liquidity and capital resources
	21	4.4 Disclosure controls and procedures and changes in internal control over financial reporting
5. Discussion of operations	23	5.1 Selected annual information
	24	5.2 Summary of consolidated quarterly results, trends and fourth quarter recap
	26	5.3 Consolidated operations
	29	5.4 Wireless segment
	33	5.5 Wireline segment
6. Changes in financial position	37	
7. Liquidity and capital resources	38	7.1 Overview
	39	7.2 Cash provided by operating activities
	39	7.3 Cash used by investing activities
	40	7.4 Cash provided (used) by financing activities
	42	7.5 Liquidity and capital resource measures
	43	7.6 Credit facilities
	44	7.7 Sale of trade receivables
	44	7.8 Credit ratings
	45	7.9 Financial instruments, commitments and contingent liabilities
	49	7.10 Outstanding share information
	49	7.11 Transactions between related parties
8. Accounting matters	50	8.1 Critical accounting estimates
	55	8.2 Accounting policy developments

9. General trends, outlook and assumptions	57	9.1 Telecommunications industry in 2016
	58	9.2 Telecommunications industry general outlook and trends
	59	9.3 TELUS assumptions for 2017
	61	9.4 Telecommunications industry regulatory developments and proceedings
10. Risks and risk management	64	10.1 Overview
	66	10.2 Competition
	69	10.3 Technology
	73	10.4 Regulatory matters
	74	10.5 Human resources
	75	10.6 Process risks
	78	10.7 Financing, debt requirements and returning cash to shareholders
	79	10.8 Taxation matters
	80	10.9 Litigation and legal matters
	82	10.10 Health, safety and environment
	84	10.11 Human-caused and natural threats
	85	10.12 Economic growth and fluctuations
11. Definitions and reconciliations	86	11.1 Non-GAAP and other financial measures
	89	11.2 Operating indicators

1. Introduction

1.1 Preparation of the MD&A

The following sections are a discussion of the consolidated financial position and financial performance of TELUS for the year ended December 31, 2016, and should be read together with TELUS' December 31, 2016 audited Consolidated financial statements (subsequently referred to as the 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 Consolidated financial statements comply with IFRS-IASB and Canadian GAAP. 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 (www.sedar.com). Our filings with the Securities and Exchange Commission in the United States, including Form 40-F, are available on EDGAR (www.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 Consolidated financial statements were reviewed by TELUS' Audit Committee and approved by our board of directors (our Board) for issuance on February 9, 2017.

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 the competitive industry in which we operate. Our estimates regarding our environment also form an important part of the assumptions on which our targets are based.

2016 Canadian telecom industry revenues	TELUS 2016 revenues	TELUS subscriber connections	TELUS employees
Est. $60 billion	$ 12.8 billion	12.7 million	51,250

Economic growth

We estimate that the rate of economic growth in Canada in 2017 will be 1.8% (1.2% in 2016), both of which are based on a composite of estimates from Canadian banks and other sources. For our incumbent local exchange carrier (ILEC) provinces in Western Canada, we estimate that economic growth in British Columbia (B.C.) will be 2.3% in 2017 (2.9% in 2016), and in Alberta will be between 1.0 to 2.0% in 2017 (estimated contraction of 2.4% in 2016). The Bank of Canada's January 2017 Monetary Policy Report estimated economic growth in Canada will be 2.1% in 2017 (1.3% in 2016). However, the Bank stated their outlook is subject to considerable uncertainty, particularly concerning trade, given the potential outcomes of yet unknown policies and actions of the incoming U.S. administration.

In respect of the national unemployment rate, Statistics Canada's Labour Force Survey reported a rate of 6.9% for December 2016 (7.1% reported for December 2015). The unemployment rate for B.C. was 5.8% for December 2016 (6.7% for December 2015), while the unemployment rate for Alberta was 8.5% in December 2016 (7.0% in December 2015).

Canadian telecommunications industry growth

We estimate that industry revenues (including TV revenue and excluding media revenue) grew by approximately 2% in 2016 (2% in 2015). We estimate that the Canadian wireless industry grew in 2016 by approximately one million new subscribers and experienced approximately 5%

network revenue growth. Key drivers included the continuing significant growth in wireless applications and data usage and the ongoing movement to more capable smartphones. The wireline market was impacted by continued slow economic growth in 2016, particularly in Alberta. Revenue growth in enhanced data, IP and Internet services continued at a slower pace amid cautious business spending, while declines in higher-margin legacy voice services were ongoing. (See *Section 9 General trends, outlook and assumptions, Section 10.2 Competition,* and *Section 10.12 Economic growth and fluctuations.*)

1.3 Highlights of 2016

Collective bargaining and transformative change compensation

In 2015, we commenced collective bargaining with the Telecommunications Workers Union, United Steel Workers Local Union 1944 (TWU), to renew the collective agreement that expired on December 31, 2015. On October 3, 2016, TELUS and the TWU announced that they had reached a tentative five-year collective agreement which would be subject to ratification by members of the TWU. The ratification process was completed in November with a majority of TWU members who cast their ballots voting to accept the tentative agreement. The new collective agreement with the TWU is in place through to December 31, 2021 and covers approximately 37% of our Canadian workforce as at December 31, 2016.

In December 2016, a new collective agreement between TELUS and the Syndicat des agents de maîtrise de TELUS (SAMT) was ratified by a majority of the SAMT members. This collective agreement will take effect on April 1, 2017, and will expire on March 31, 2022. A new collective agreement between TELUS and the Syndicat québécois des employés de TELUS (SQET) was also ratified in December 2016. The new agreement will be effective from January 1, 2018 to December 31, 2022. The current SQET collective agreement will remain in effect until it expires on December 31, 2017.

In the fourth quarter of 2016, we recorded an expense of $305 million in respect of immediately vesting transformative compensation (transformative compensation) paid to substantially all of our existing unionized and non-unionized Canadian-situated workforces; a portion of the after-tax value for certain lump-sum recipients was paid in Common Shares purchased in the market for that purpose under our normal course issuer bid (NCIB) by an employee benefit plan trust. The one-time payment to unionized employees in the fourth quarter of 2016 represents both a one-time payment in lieu of wage increases for the period July 1, 2016 to December 31, 2018 (a period of 30 months) and a one-time payment as compensation for reductions in certain premium payments and paid time-off provisions that underpin future productivity improvements. A similar approach with respect to salary increases was adopted for management employees. For most of our current Canadian-situated management employees, there was a one-time payment in the fourth quarter of 2016 in lieu of general salary increases for 2017 and 2018. For the unionized and non-unionized workforces, approximately 40% of the after-tax value of such qualifying lump-sum payments was paid in our Common Shares.

For substantially all of our Canadian-situated employees, the next salary increases are planned for 2019. This arrangement will provide us with financial flexibility to make the necessary growth and customer retention investments within a competitive environment.

Investment in TELUS International

In June 2016, we announced the completion of the previously announced agreement with Baring Private Equity Asia (Baring Asia), an Asian-based investment firm that advises funds holding a total of more than $13 billion (U.S.$10 billion) in assets, under which it has acquired a 35% non-controlling interest in TELUS International (Cda) Inc. (TELUS International), a global provider of customer service, information technology (IT) and business process outsourcing services. The agreement valued TELUS International at $1.2 billion. As a result of this collaboration, TELUS International is well positioned to leverage Baring Asia's deep Asian market presence and worldwide experience and tap into its global network in order to further expand TELUS International's operations. In connection with the transaction, we arranged an incremental U.S.$330 million in bank financing, which is secured by assets of TELUS International and its subsidiaries, expires in 2021 and is non-recourse to TELUS Corporation.

Agreement with BCE Inc. regarding Manitoba Telecom Services Inc.

In 2016, we announced an agreement with BCE Inc. (BCE), pursuant to which we would acquire a portion of Manitoba Telecom Services Inc.'s (MTS') postpaid wireless subscribers and dealer locations in Manitoba, dependent on the successful completion of BCE's acquisition of MTS. On February 2, 2017, BCE announced that it expected to close its acquisition of MTS by the end of March 2017, subject to Competition Bureau and Innovation, Science and Economic Development Canada (ISED) approvals. As of February 9, 2017, BCE had not received the requisite approvals from the Competition Bureau and ISED.

Leadership changes

On May 16, 2016, we announced the appointment of Doug French as Executive Vice-President and Chief Financial Officer of TELUS. Doug has 30 years of financial management experience and 20 years of career progression within TELUS, including a wide range of key roles as Controller for our largest business units, and more recently as Senior Vice-President, Corporate Controller.

Consolidated highlights

Years ended December 31 ($ millions, unless noted otherwise)	2016	2015	Change
Consolidated statements of income			
Operating revenues	**12,799**	12,502	2.4%
Operating income	**2,182**	2,353	(7.3)%
Income before income taxes	**1,662**	1,906	(12.8)%
Net income	**1,236**	1,382	(10.6)%
Net income attributable to Common Shares	**1,223**	1,382	(11.5)%
Earnings per share (EPS) ($)			
Basic EPS	**2.06**	2.29	(10.0)%
Adjusted basic EPS[1]	**2.58**	2.58	—
Diluted EPS	**2.06**	2.29	(10.0)%
Dividends declared per Common Share ($)	**1.84**	1.68	9.5%
Basic weighted-average Common Shares outstanding (millions)	**592**	603	(1.8)%
Consolidated statements of cash flows			
Cash provided by operating activities	**3,219**	3,556	(9.5)%
Cash used by investing activities	**(2,923)**	(4,477)	34.7%
Capital expenditures (excluding spectrum licences)	**(2,968)**	(2,577)	(15.2)%
Payments for wireless spectrum licences	**(145)**	(2,048)	92.9%
Cash provided (used) by financing activities	**(87)**	1,084	n/m
Other highlights			
Subscriber connections[2] (thousands)	**12,673**	12,495	1.4%
EBITDA (earnings before interest, income taxes, depreciation and amortization)[1]	**4,229**	4,262	(0.8)%
Restructuring and other costs[1] [3]	**479**	226	111.9%
EBITDA — excluding restructuring and other costs[1]	**4,708**	4,488	4.9%
Adjusted EBITDA[4]	**4,667**	4,488	4.0%
Adjusted EBITDA margin[5] (%)	**36.6**	35.9	0.7pts.
Free cash flow[1]	**141**	1,078	(86.9)%
Net debt to EBITDA — excluding restructuring and other costs[1] (times)	**2.69**	2.66	0.03

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

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

(2) The sum of active wireless subscribers, residential network access lines (NALs), high-speed Internet access subscribers and TELUS TV® subscribers (Optik TV® and TELUS Satellite TV® subscribers), measured at the end of the respective periods based on information in billing and other systems. Subsequent to a review of our subscriber base during the first quarter of 2016, our 2016 opening postpaid wireless subscriber base was reduced by 45,000 and our 2016 opening high-speed Internet subscriber base was increased by 21,000.

(3) In the fourth quarter of 2016, we recorded a transformative compensation expense of $305 million as part of other costs.

(4) Adjusted EBITDA excludes restructuring and other costs. In addition, adjusted EBITDA for 2016 excludes net gains and equity income of $26 million related to real estate joint venture developments and a $15 million gain from the exchange of wireless spectrum licences.

(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 on exchanged wireless spectrum licences.

Operating highlights

- **Consolidated operating revenues** increased by $297 million in 2016:

  Service revenues increased by $410 million in 2016, mainly due to growth in wireline data services and wireless network revenue, partly offset by the ongoing decline in legacy wireline voice revenue due to technological substitution and continued competitive pressures.

  Equipment revenues decreased by $115 million in 2016, reflecting a combination of higher wireless per-unit subsidies, lower wireless retention volumes, and lower wireline equipment sales activity in the business market, in part due to the economic slowdown, and a focus on providing managed services, rather than equipment-only sales.

  Other operating income increased by $2 million in 2016, reflecting a gain in the second quarter of 2016 on exchange of wireless spectrum licences, and net gains and equity income in the second, third and fourth quarters of 2016 related to real estate joint venture developments, partly offset by non-recurrence of gains on the sale of certain real estate assets in 2015 and a decrease in amounts recognized from the regulatory price cap deferral account.

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

- During 2016, our total **subscriber connections** increased by 178,000, reflecting a 2.7% increase in wireless postpaid subscribers, a 5.4%

increase in TELUS TV subscribers and a 5.7% increase in high-speed Internet subscribers, partly offset by a 6.3% decline in wireless prepaid subscribers and a 6.3% decline in wireline residential NALs.

Our postpaid wireless subscriber net additions were 243,000 in 2016, down slightly from 2015, as higher gross additions due to the success of targeted promotions and focus on higher-value loading were offset by the effects of the economic slowdown, particularly in Alberta, and heightened competitive intensity. Our monthly postpaid subscriber churn rate was 0.95% in 2016, as compared to 0.94% in 2015. (See *Section 5.4 Wireless segment* for additional details.)

Net additions of high-speed Internet subscribers were 68,000 in 2016, down 23,000 from 2015. The decrease resulted from the effects of heightened competitive intensity and the impact of the economic slowdown in Alberta, resulting in increased churn, partly offset by growth in the areas of continued expansion of our high-speed broadband footprint, including fibre to the premises (FTTP) and the pull-through impact from the continued adoption of Optik TV. Net additions of TELUS TV subscribers were 54,000 in 2016, down 35,000 from 2015. The decrease reflects lower gross additions, a higher customer churn rate and a decline in satellite-TV subscribers due a declining overall market for paid TV services resulting from the economic slowdown in Alberta, a high rate of market penetration and the effects of heightened competitive intensity including OTT services. 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 combined Internet and TV subscriber growth of 122,000 or 4.7% in 2016. (See *Section 5.5 Wireline segment* for additional details.)

- **Operating income** decreased by $171 million in 2016, primarily due to the effects of the $305 million transformative compensation expense recorded in the fourth quarter of 2016, as well as increases in Depreciation and amortization expenses.

EBITDA includes restructuring and other costs, such as the $305 million transformative compensation expense recorded in other costs in the fourth quarter of 2016. EBITDA also includes net gains and equity income related to real estate joint venture developments recorded in the second, third and fourth quarters of 2016, and a gain from the exchange of wireless spectrum licences recorded in the second quarter of 2016. EBITDA decreased by $33 million in 2016.

Adjusted EBITDA excludes restructuring and other costs, the net real estate gains and equity income, and the gain from the exchange of wireless spectrum licences, noted above. Adjusted EBITDA increased by $179 million in 2016 due to: growth in wireline data revenues and wireless network revenue; improvements in Internet, business process outsourcing, TELUS TV and TELUS Health margins; and the execution on our operational efficiency and effectiveness initiatives. This growth was partly offset by higher wireless acquisition and retention costs, continued declines in legacy wireline voice revenues, certain business acquisition-related provisions, and approximately $5 million of costs and revenue impacts, predominantly in wireline, related to the severe wildfires in northern Alberta. Had 2015 adjusted EBITDA also excluded the non-recurring gain on certain real estate assets in the fourth quarter of 2015, adjusted EBITDA would have reflected an increase of approximately $199 million or 4.5% in 2016. (See *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment* for additional details.)

- **Income before income taxes** decreased by $244 million in 2016, reflecting lower Operating income as noted above, and an increase in Financing costs. The increase in Financing costs resulted from higher average long-term debt outstanding (including the full-year impact of increased debt related to the purchase of spectrum licences in 2015), higher foreign exchange losses and a decrease in interest income related to the settlement of prior years' income tax-related items. These were partly offset by a lower weighted average cost of long-term debt, lower employee defined benefit plans net interest and higher capitalized long-term debt interest costs for spectrum licences not yet able to be deployed. (See *Financing costs* in *Section 5.3.)*

- **Income taxes** decreased by $98 million in 2016, primarily due to lower Income before income taxes, the revaluation of deferred income tax liabilities in 2016 to reflect the provincial income tax rate reduction in Quebec beginning in 2017, and a $48 million increase in deferred taxes in the second quarter of 2015 to revalue deferred income tax liabilities arising from an increase in the Alberta provincial corporate tax rate, partly offset by lower recoveries related to the settlement of prior years' income tax-related matters (excluding related interest income).

- **Net income attributable to Common Shares** decreased by $159 million in 2016, reflecting lower Operating income and increased Financing costs, partly offset by lower Income taxes. Excluding restructuring and other costs, income tax-related adjustments, the net gains and equity income from real estate joint venture developments in 2016, the gain on the exchange of wireless spectrum licences in 2016 and the asset retirement from the closure of Black's Photography retail stores in 2015, adjusted Net income decreased by $27 million or 1.7% for the full year of 2016.

Analysis of Net income

Years ended December 31 ($ millions)	2016	2015	Change
Net income attributable to Common Shares	**1,223**	1,382	(159)
Add back (deduct):			
Restructuring and other costs, after income taxes	**351**	166	185
(Favourable) unfavourable income tax-related adjustments	**(17)**	1	(18)
Net gains and equity income from real estate joint venture developments, after income taxes	**(16)**	—	(16)
Gain on the exchange of wireless spectrum licences, after income taxes	**(13)**	—	(13)
Asset retirement from closure of Black's Photography, after income taxes	**—**	6	(6)
Adjusted net income	**1,528**	1,555	(27)

- **Basic EPS** decreased by $0.23 or 10.0% in 2016. The effect of fewer shares outstanding resulting from our NCIB program, net of share option exercises, contributed positively to basic EPS by approximately $0.03 in 2016. Excluding the effects of restructuring and other costs, income tax-related adjustments, net gains and equity income from real estate joint venture developments, the gain on the exchange of wireless spectrum licences and asset retirement from the closure of Black's Photography retail stores, basic EPS remained unchanged.

Analysis of basic EPS

Years ended December 31 ($)	2016	2015	Change
Basic EPS	**2.06**	2.29	(0.23)
Add back (deduct):			
Restructuring and other costs, after income taxes, per share	**0.60**	0.28	0.32
Unfavourable (favourable) income tax-related adjustments, per share	**(0.03)**	—	(0.03)
Net gains and equity income from real estate joint venture developments, after income taxes, per share	**(0.03)**	—	(0.03)
Gain on the exchange of wireless spectrum licences, after income taxes, per share	**(0.02)**	—	(0.02)
Asset retirement from closure of Black's Photography, after income taxes, per share	**—**	0.01	(0.01)
Adjusted basic EPS	**2.58**	2.58	—

- **Dividends declared per Common Share** totalled $1.84 in 2016, up 9.5% from 2015. On February 8, 2017, the Board declared a first quarter dividend of $0.48 per share on the issued and outstanding Common Shares, payable on April 3, 2017, to shareholders of record at the close of business on March 10, 2017. The first quarter dividend increased by $0.04 per share or 9.1% from the $0.44 per share dividend declared one year earlier, consistent with our multi-year dividend growth program described in *Section 4.3 Liquidity and capital resources*.

Liquidity and capital resource highlights

- **Net debt to EBITDA — excluding restructuring and other costs** was 2.69 times at December 31, 2016, up from 2.66 times at December 31, 2015, as the increase in net debt was largely offset by growth in EBITDA — excluding restructuring and other costs. (See *Section 4.3 Liquidity and capital resources* and *Section 7.5 Liquidity and capital resource measures.*)

- **Cash provided by operating activities** decreased by $337 million in 2016 due to increases in income taxes paid, interest paid and restructuring and other disbursements, of which the most significant component related to transformative compensation payments. These factors were partly offset by growth in EBITDA — excluding restructuring and other costs and lower share-based compensation payments.

- **Cash used by investing activities** decreased by $1.55 billion or 35% in 2016, mainly due to lower expenditures for spectrum licences, partly offset by higher capital expenditures. **Payments for spectrum licences** decreased by $1.9 billion in 2016, largely due to our participation in wireless spectrum auctions held by ISED in 2015. **Capital expenditures** (excluding spectrum licences) increased by $391 million in 2016, mainly due to generational capital investments in broadband infrastructure and deploying 700 MHz and 2500 MHz spectrum licences. Investments in our broadband infrastructure include our fibre-optic network, which supports our small-cell technology strategy to improve coverage 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** was $87 million in 2016, as compared to **Cash provided by financing activities** of $1.1 billion in 2015. The $1.2 billion net increase in cash used by financing activities was mainly due to lower net issues of long-term debt in 2016, partly offset by lower purchases of shares under the NCIB program. (See *Section 7.4 Cash provided (used) by financing activities.*)

- **Free cash flow** decreased by $937 million in 2016, resulting from the $391 million increase in capital expenditures — (excluding spectrum licences), increased payments in respect of restructuring and other costs, and increases in income taxes paid and interest paid, partially offset by growth in EBITDA — excluding restructuring and other costs. (See calculation in *Section 11.1 Non-GAAP and other financial measures.*)

1.4 Performance scorecard (key performance measures)

In 2016, we achieved three of four original consolidated targets and all of our original segment targets, missing only the target for capital expenditures. In respect of updated guidance provided for five targets with our second quarter results, we achieved the revised target for consolidated revenue, consolidated EBITDA — excluding restructuring and other costs, and wireless segment EBITDA — excluding restructuring and other costs. We did not achieve the revised guidance for capital expenditures or wireline external revenue. Our original targets were announced on February 11, 2016.

We achieved our consolidated revenue target primarily due to growth in wireless network revenue, which exceeded the high end of our target range. Wireless network revenue growth resulted from higher than expected average revenue per subscriber unit per month (ARPU) (driven by increased data usage) and growth in our subscriber base. Wireline revenues were slightly below the revised bottom end of our target range due to slower than anticipated growth in data revenues, continued declines in legacy voice services and lower business spending than expected in the second half of 2016.

We met our target for consolidated EBITDA — excluding restructuring and other costs. Our target for wireless EBITDA — excluding

restructuring and other costs was met due to an increase in network revenue and executing on operational efficiency and effectiveness initiatives, partially offset by higher acquisition and retention spending. Our target for wireline EBITDA — excluding restructuring and other costs was met due to executing on our efficiency and effectiveness initiatives and improved margins in enhanced data services, TELUS TV services, business process outsourcing services and TELUS Health services.

Our basic EPS of $2.06 for 2016 included the effect of the transformative compensation expense recorded in other costs of $0.38 in the fourth quarter of 2016; however, the target for basic EPS did not include this expense. When the effects of the transformative compensation expense are excluded from basic EPS, we met our target range.

Our capital expenditures in 2016 exceeded both our original target and revised guidance, as we continued to focus on investments in broadband infrastructure, including our fibre-optic network, as well as deployment of 700 MHz and 2500 MHz spectrum licences. Investments in our broadband infrastructure also support our small-cell technology strategy to improve coverage and prepares for a more efficient and timely evolution to 5G.

Our capital structure financial policies and our report on financing and capital structure management plans are described in *Section 4.3 Liquidity and capital resources.*

The following scorecard compares TELUS' performance to our original 2016 targets. See our general trends, outlook and assumptions for 2017 in *Section 9*.

Scorecard

	2016 performance		
	Actual results and growth	**Original or revised targets[4] and growth**	**Result**
Consolidated			
Revenues	**$12.799 billion 2.4%**	$12.775 to $12.875 billion[4a] 2.2 to 3.0%	ü
EBITDA — excluding restructuring and other costs[1]	**$4.708 billion 4.9%**	$4.650 to $4.755 billion[4b] 3.6 to 6.0%	ü
Basic EPS	**$2.06 (10.0)%**	—	—
Basic EPS[2]	**$2.44 6.6%**	$2.40 to $2.56 5.0 to 12.0%	ü
Capital expenditures[3]	**$2.968 billion**	Approx. $2.85 billion[4c]	X
Wireless segment			
Network revenue (external)	**$6.541 billion 3.9%**	$6.425 to $6.490 billion 2.0 to 3.0%	ü
EBITDA — excluding restructuring and other costs	**$3.027 billion 4.8%**	$3.000 to $3.060 billion[4d] 3.9 to 6.0%	ü
Wireline segment			
Revenue (external)	**$5.684 billion 2.1%**	$5.705 to $5.735 billion[4e] 2.4 to 3.0%	X
EBITDA — excluding restructuring and other costs	**$1.681 billion 5.1%**	$1.650 to $1.695 billion 3.0 to 6.0%	ü

Met target ü; Missed target X.

(1) See description in *Section 11.1 Non-GAAP and other financial measures.*

(2) Our target for basic EPS excluded the transformative compensation of $0.38 per share recorded in other costs in the fourth quarter of 2016; actual results adjusted to exclude the transformative compensation expense.

(3) Excludes expenditures for spectrum licences.

(4) Targets were revised in the second quarter of 2016 to reflect improved performance in wireless and wireline, and the general positive environment for generational capital investments in broadband infrastructure.

(4a) The original target for Consolidated revenues was $12.750 to $12.875 billion, or an increase of 2.0 to 3.0%.

(4b) The original target for Consolidated EBITDA — excluding restructuring and other costs was $4.625 to $4.755 billion, or an increase of 3.0 to 6.0%.

(4c) The original target for Capital expenditures was $2.65 billion.

(4d) The original target for wireless segment EBITDA — excluding restructuring and other costs was $2.975 to $3.060 billion, or an increase of 3.0 to 6.0%.

(4e) The original target for wireline segment external revenue was $5.680 to $5.735 billion, or an increase of 2.0 to 3.0%.

We made the following key assumptions when we announced the 2016 targets in February 2016.

Assumptions for 2016 targets and results

- Our economic assumptions are based on a composite of estimates from Canadian banks and other sources. Our original assumptions for 2016 were: (i) moderately higher economic growth in Canada of 1.7%, up from an estimated 1.1% in 2015; (ii) for our incumbent local exchange carrier (ILEC) provinces in Western Canada, economic growth in B.C. in the range of 2.0% to 2.5% and economic growth in Alberta in the range of 0.5% to 1.0%, in part due to low oil prices.

  In our MD&A for the first quarter of 2016, we revised our 2016 economic growth (contraction) assumptions to 1.4% for Canada, 2.5% for B.C. and (1.0) to (1.5)% for Alberta. In our MD&A for the second quarter of 2016, we further revised our 2016 economic growth (contraction) assumptions to 1.3% for Canada, 2.9% for B.C. and (2.0)% for Alberta, in part due to the Fort McMurray wildfires. In our MD&A for the third quarter of 2016, we again revised our 2016 economic growth (contraction) assumptions to 1.2% for Canada, 2.8% for B.C. and (2.2)% for Alberta.

  We estimate that economic growth for 2016 was 1.2% for Canada and 2.9% for B.C., while the contraction in Alberta was (2.4)%.

- Our original assumption for restructuring and other costs was approximately $175 million for continuing operational efficiency initiatives. The assumption for other costs did not include the $305 million transformative compensation expense recorded in the fourth quarter of 2016.

- Our assumption was for stable wireless acquisition and retention expenses, as compared to 2015, dependent on gross loadings, market pressures and the continued impact of the coterminous expiration of two-year and three-year plans, which began in June 2015. Both acquisition and retention expenses increased in 2016 from heightened competitive intensity, resulting in higher subsidy rates.

Confirmed:

- No material adverse regulatory rulings or government actions.

- Continued intense wireless and wireline competition in both consumer and business markets.

- An increase in wireless industry penetration of the Canadian market, consistent with 2015.

- Ongoing subscriber adoption of, and upgrades to, data-intensive smartphones, as customers want more mobile connectivity to the Internet.

- Wireless revenue growth resulting from modest growth in both postpaid subscriber loadings and blended ARPU.

- Continued growth in wireline data revenue, resulting from an increase in high-speed Internet and Optik TV subscribers, speed upgrades and expanding broadband infrastructure, as well as business outsourcing and healthcare solutions.

- Continued focus on our customers first initiatives and maintaining our customers' likelihood-to-recommend scores. See *Section 3 Corporate priorities*.

- Pension plans: Defined benefit pension plan expense of approximately $89 million recorded in Employee benefits expense and approximately $5 million recorded in employee defined benefit plans net interest in Financing costs; a 4.00% discount rate for employee defined benefit pension plan accounting purposes (2015 — 3.90%); and defined benefit pension plan funding of approximately $57 million. Actual results were: $92 million recorded in Employee benefits expense, $6 million recorded in employee defined benefit plans net interest, a discount rate of 4.00% and defined benefit pension plan funding of $70 million.

- Income taxes: Income taxes computed at applicable statutory rate of 26.3 to 26.8% and cash income tax payments between $570 million and $630 million (2015 — $256 million). Actual results were a statutory income tax rate of 26.7% and cash income tax payments of $600 million.

- Increased investments in broadband infrastructure, including our new fibre-optic network, and 4G LTE expansion and upgrades, as well as in network and systems resiliency and reliability.

- A continuing weakness in the average Canadian dollar to U.S. dollar exchange rate from the U.S. 78 cent average exchange rate in 2015. The average exchange rate for 2016 was U.S. 75.5 cents.

2. Core business and strategy

2.1 Core business

We provide a wide range of telecommunications products and services. Wireless products and services include network revenue (data and voice) and equipment sales arising from mobile technologies. Wireline products and services include data revenues (which include revenues from Internet protocol; television; hosting, managed information technology and cloud-based services; business process outsourcing; and certain healthcare solutions), voice revenues and other telecommunications services revenues. We earn the majority of our revenue from access to, and the usage of, our telecommunications infrastructure, and from providing services and products that facilitate access to, and usage of, our infrastructure.

2.2 Strategic imperatives

Since 2000, we have maintained a proven national growth strategy. Our strategic intent is to unleash the power of the Internet to deliver the best solutions to Canadians at home, in the workplace and on the move. Our focus is on our core telecommunications business in Canada, supported by our international contact centres and outsourcing capabilities.

We developed six strategic imperatives in 2000 that remain relevant for future growth, despite changing regulatory, technological and competitive environments. We believe that a consistent focus on these imperatives guides our actions and contributes to the achievement of our financial goals. To advance these long-term strategic imperatives and address near-term opportunities and challenges, we also set new corporate priorities each year, as further described in *Section 3*. Our six strategic imperatives are listed below, together with a discussion of the 2016 activities and initiatives that relate to each of them.

Focusing relentlessly on growth markets of data, IP and wireless

In 2016, approximately 87% of TELUS consolidated revenues were external wireless revenues and wireline data revenues (86% in 2015). These combined revenues increased by $469 million to $11.2 billion in 2016, compared to 2015. In contrast, wireline voice and other revenues, including wireline Other operating income, decreased by $172 million to $1.6 billion in 2016. (See the consolidated revenue trend discussion in *Section 5.2* and segment trend discussions in *Section 5.4* and *Section 5.5*.)

Providing integrated solutions that differentiate TELUS from our competitors

On March 1, 2016, we launched new Lite basic TV plans on both our Optik and satellite-TV services, offering another choice to customers looking for basic channel services at lower prices. These new plans, as well as our existing offers of small theme packs, align with the intent of the Canadian Radio-television and Telecommunications Commission (CRTC) to provide greater customer choice and provide more freedom for Canadian viewers to subscribe to the channels they want to watch. Even prior to the commencement of the CRTC's consultation on the television regulatory framework in 2014, we began focusing on providing TV service plans that more closely reflect the demands of our customers, rather than larger programming packages with higher aggregate prices.

Building national capabilities across data, IP, voice and wireless

In May 2016, we concluded a spectrum licence assignment and rationalization agreement with Xplornet Communications Inc., a Canadian-based broadband Internet provider. Under this agreement, we transferred 3500 MHz fixed wireless access spectrum licences in certain of our secondary and tertiary regions, as well as monetary consideration, in exchange for Xplornet's 2300 MHz spectrum licences in similar regions. The associated spectrum licence transfer application was approved by Innovation, Science and Economic Development Canada (ISED) on April 21, 2016. This spectrum licence exchange will allow for more robust mobile and fixed wireless broadband access for Canadians, as each party in the transaction can more effectively utilize these licences within its respective network. The 2300 MHz spectrum has a robust ecosystem of network infrastructure and devices, and complements our existing 2300 MHz spectrum holdings in Montreal, Quebec City and key markets in Western Canada, giving us use of the spectrum in this band in nearly every market.

Consistent with our network optimization strategy, we exchanged certain wireless telecommunication tower sites in 2016 with Bell Mobility. The exchange entailed the re-assignment of existing lease agreements for each tower site, as well as the transfer of all ownership of any leasehold construction on the leased premises, including tower structures, antennae and cabling. The exchange benefits both parties, as the tower sites are well positioned for utilization within each party's respective 4G long-term evolution (LTE) network footprint. We expect that additional transfers of assets will be made in 2017.

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

In February 2016, we partnered with Microsoft and Avanade, a leading global provider of innovative digital business and technology services in the Microsoft ecosystem, to offer Skype for Business. Powered by TELUS, Skype for Business offers a full suite of enterprise-grade communication and collaboration tools that includes voice and video calls, instant messaging and online meetings. This service is delivered as a fully managed private cloud solution over our network of intelligent Internet data centres located across Canada, and is available through a single interface on almost all devices.

In March 2016, the Canada Green Building Council awarded leadership in energy and environmental design (LEED) platinum certification to the TELUS Garden™ office tower in Vancouver. This is the highest LEED rating a building can receive, demonstrating our commitment to technological innovation and environmental stewardship. In partnership with Westbank Projects Corp., the one-million-square-foot TELUS Garden development includes 450,000 square feet of office space, 65,000 square feet of retail space, and a 53-storey residential tower that was officially opened in June 2016. Following the opening of the residential tower, the TELUS Garden real estate joint venture commenced the transfer of ownership to the majority of condominium unit owners, as well as the recognition of the associated sales revenue concurrent with repatriation of funds from the joint venture, including the repayment of the construction credit facility. The remaining ownership transfers and associated sales revenue are expected to be recorded in 2017.

As discussed in *Section 1.3*, in June 2016, we announced the completion of the investment by Baring Asia in TELUS International. Also discussed in *Section 1.3,* in May 2016, we announced an agreement with BCE, pursuant to which we would acquire a portion of Manitoba Telecom Services Inc.'s (MTS') postpaid wireless subscribers and dealer locations in Manitoba, dependent on the successful completion of BCE's acquisition of MTS. As of February 9, 2017, BCE had not received the requisite approvals from the Competition Bureau and ISED.

Going to market as one team under a common brand, executing a single strategy

Our team works together to implement our top corporate priority: putting customers first, as we strive to consistently deliver exceptional client experiences and become the most recommended company in the markets we serve. The November 2016 report of the office of the Commissioner for Complaints for Telecommunications Services (CCTS) for the 12-month period ended July 31, 2016 showed the successful result of this strategy. Once again, TELUS was the subject of the lowest number of customer complaints among all national carriers. TELUS, Koodo® and Public Mobile were the subjects of 7.0%, 2.5% and 0.6% of the total customer complaints submitted to the CCTS, respectively, or 10.1% of total customer complaints in aggregate. In addition, we recorded the lowest postpaid churn among our peers of 0.95% in 2016.

Investing in internal capabilities to build a high-performance culture and efficient operation

Our transformative compensation was paid in connection with changes to certain premium payments and paid time-off provisions that will underpin future productivity improvements. As a result of these changes, we expect to realize savings over the coming years. See *Collective bargaining and transformative change compensation* in *Section 1.3*.

3. Corporate priorities

We confirm or set new corporate priorities each year that are intended to both advance TELUS' long-term strategic imperatives (see *Section 2.2*) and address near-term opportunities and challenges. The following table provides a discussion of activities and initiatives that relate to our 2016 corporate priorities.

Delivering on TELUS' future friendly® brand promise by putting customers first, enhancing reliability, and pursuing global leadership in the likelihood of our clients to recommend our products, services and people

- We launched the TELUS Internet for Good pilot project, which offers low-cost Internet service to as many as 33,000 low-income, single-parent families in British Columbia and Alberta, and is entirely funded by TELUS with no cost to either governments or taxpayers. As part of the program, participants also receive access to TELUS WISE®, our national Internet and smartphone safety program, as well as access to a low-cost computer, digital literacy programs and music education resources from The Royal Conservatory.

- We maintained our leadership position in customer loyalty, achieving a postpaid wireless churn rate of less than one per cent for 13 of the last 14 quarters. Notably, in two J.D. Power studies, Koodo was ranked "Highest in customer service among wireless providers" in the 2016 Canadian Wireless Customer Care Study and TELUS received "Highest wireless network quality performance in Ontario" two years in a row in the 2016 Canadian Wireless Network Quality Study.

- TELUS came in first place among all Canadian wireless carriers for speed and responsiveness (latency) in Open Signal's January 2017 report, "State of Networks: Canada." This result is testament to our multi-pronged strategy for technology development, such as through our rollout of LTE, our wireless network upgrade in Eastern Canada and our approach to the roll out of 5G by incubating new technologies through trials in a real life environment in our 5G Living Lab in Vancouver.

- We continued to exceed our business targets in respect of likelihood-to-recommend results and we lead our national peers in the consumer space, with Koodo being the most recommended of any wireless brand.

- We continued to revitalize our corporate retail locations, opening 91 new Digital Life stores and five new Connected Experience stores, bringing the total number for each store format to 100 and seven, respectively, at year end. Digital Life stores contain accessories and connected life products with compelling merchandising. The Connected Experience stores are larger format stores in key shopping malls that offer premium lifestyle, health and home products, along with TELUS Learning Centres, where team members can take customers through one-on-one demos.

- We introduced TELUS Internet 150/150, our advanced 150 Mbps Internet plan that uniquely offers symmetrical download and upload speeds of up to 150 Mbps to both consumers and business customers on the TELUS PureFibre™ network. None of our cable-TV competitors currently offer comparable symmetrical upload speed of 150 Mbps.

- We launched Premium Plus wireless offers – allowing customers to get more affordable high-end devices, which results in a greater subsidy but higher average revenue per subscriber unit per month (ARPU) over time.

- We launched Optik TV 4K in mid-2016 and were the first carrier in Western Canada to offer 4K programming to customers with an Optik TV 4K set-top box. Those customers who also have a Netflix Premium subscription can stream Netflix 4K content directly through their 4K set-top box.

Elevating our winning culture for sustained competitive advantage, with the world's most engaged team

- We reached three new collective agreements that provide labour stability and operational flexibility benefiting our customers, team members and the Company for the long term.

- Our employee engagement levels continue to place our organization within the top quartile of all employers surveyed.

- Our culture continues to fuel our success in the marketplace, as we focus on putting our customers first in a manner that differentiates us

from our competitors.

- Our Work Styles® program saw nearly 70% of eligible team members work outside TELUS offices at least part of the week.
- TELUS was named one of Canada's Top 100 Employers and one of Canada's Best Diversity Employers for the eighth consecutive year.
- In 2016, TELUS and its team members contributed $43 million to charitable organizations across Canada and around the world, and volunteered 870,000 hours.
- We formed the TELUS Manitoba Community Board, which will launch in early 2017 and will provide funding to local registered charities that support youth and families, focused on at least one of three key areas: health, education and the environment. We also formed the TELUS International Romania Community Board, which will launch in 2017 and will focus on supporting youth in the same key areas. TELUS now has 17 Community Boards around the world.
- We received our 11th BEST award for excellence in employee learning and development from the Association for Talent Development and we are the only organization inducted into the Best of the BEST Hall of Fame.

Continuing to enhance our operational efficiency, effectiveness and reliability

- We continued to enhance our leading technology while driving process improvements, contributing to significant improvements in network and systems availability. Notably, we have achieved year-over-year reductions of up to 60% in downtime, resulting in marked increases in reliability for our customers.
- To meet our customers' growing needs, we introduced numerous product and system innovations, including the next generation sales system in our retail channel and the expansion of Easy Roam® for our mobile customers on a global basis.
- We completed a significant efficiency program initiated in the fourth quarter of 2015, which resulted in a net reduction of approximately 1,500 full-time equivalent employees by the end of the second quarter of 2016. This efficiency initiative is expected to generate annual recurring savings of approximately $125 million.
- As noted in *Section 1.3*, our immediately vesting transformative compensation paid in the fourth quarter of 2016 is expected to provide us with financial flexibility to make the necessary growth and customer retention investments within a competitive environment.
- We continue to invest in operational efficiency initiatives, including increased utilization of our TELUS International customer care, IT and business process services, incremental real estate rationalization, and various other efficiency and effectiveness programs, in support of our top priority of putting customers first while continuing to drive toward a more efficient cost structure.

Increasing our competitive advantage by expediting the build of reliable, client-centric networks and through technology leadership

- We partnered with our lead vendor and are conducting trials of 5G wireless technology in our 5G Living Lab in Vancouver. The successful advancements made in the lab are progressing our anticipated deployment of 5G technology by 2020.
- We continued to invest in our leading-edge broadband technology, which has enabled the success of Optik TV, Internet and business services, as well as the ongoing advancement of our world-class wireless networks:
  - Our 4G LTE network covers 97% of Canada's population.
  - Our high-speed broadband coverage reaches more than 2.9 million households and businesses in B.C., Alberta and Eastern Quebec, including approximately 1.08 million homes and businesses covered by fibre-optic cable, up from 0.69 million homes and businesses in 2015, which now provides these premises with immediate access to our gigabit-capable fibre-optic network.
- We introduced our private, public and hybrid cloud offerings, which will help organizations to maximize their IT investments and achieve greater business agility.
- Our team rolled out voice over LTE (VoLTE) in select areas in B.C. and Alberta, allowing customers with compatible smartphones to make and receive calls faster over our 4G LTE network.
- As VoLTE is introduced across our network and is used by more customers, we will be in a position to turn down older technologies and redirect spectrum to support the LTE network.
- We made substantial investments in Eastern Quebec to improve network reliability.

Driving TELUS' leadership position in our chosen business, public sector and international markets

- We positioned TELUS International, with the backing and support of TELUS and Baring Asia, to continue its significant growth in the years ahead. See *Investment in TELUS International* in *Section 1.3 Highlights of 2016*. TELUS invested the proceeds of approximately $600 million from the transaction in our business such as the expansion and advancement of our broadband networks.
- Under a 10-year strategic partnership agreement with the Government of B.C. to provide it and its public sector partners with telecommunications and strategic services, by December 2016, we had extended wireless coverage along 1,720 km of primary and secondary provincial highways. Additionally, where TELUS was the prime contractor, we have upgraded service at 1,415 of 1,417 B.C. public schools from legacy networks to the province's next generation network.
- The Groupe d'approvisionnement en commun de l'Est du Québec (Eastern Quebec joint procurement group) awarded TELUS a two-year contract to provide advanced LTE wireless technology to thousands of professionals working at health facilities and 35 universities and CEGEPs (a network of post-secondary educational institutions) throughout Quebec. The contract is valued at $30 million, with a renewal option for two more years.

Advancing TELUS' leadership position in healthcare information management

- In June 2016, we announced our intention to collaborate to improve communications among healthcare providers across Canada. In 2017,

TELUS will launch a national, secure, standards-based, and open messaging solution that will allow its 20,000 Canadian physicians to communicate more effectively with each other and to physicians using other electronic medical records (EMR) platforms that choose to link to TELUS.
- In September 2016, TELUS acquired the Canadian business operations of Nightingale Informatix Corp., including its customer base and proprietary EMR software.
- We launched TELUS personal health records in Saskatchewan.
- We rolled out our TELUS Home Health Monitoring solution in B.C., as well as a pilot project of this solution in the Yukon.

Our 2017 corporate priorities are provided in the table below.

2017 corporate priorities

Delivering on TELUS' future friendly brand promise by putting customers first
Elevating our winning culture for sustained competitive advantage, striving for world-leading team engagement to consistently delight our customers and giving compassionately to support improved social outcomes
Generating profitable top-line revenue growth on a concerted basis while continuing to enhance our operational efficiency, effectiveness and reliability
Increasing our competitive advantage by expediting the build of reliable, client-centric networks and systems and through technology leadership
Driving TELUS' leadership position in our chosen business, public sector and international markets
Advancing TELUS' leadership position in healthcare information management .

4. Capabilities

4.1 Principal markets addressed and competition

Wireless products and services for consumers and businesses across Canada

Our products and services

- Data and voice – Fast Internet access for video, social networking, messaging and mobile applications, including Optik ® on the go; Internet of Things (IoT) solutions (including machine-to-machine (M2M) connectivity); clear and reliable voice services; push-to-talk (PTT) solutions, including TELUS Link™ service; and international roaming.
- Devices – The latest smartphones, tablets, mobile Internet keys, mobile Wi-Fi devices, M2M modems, digital life devices and wearable technology.

Our capabilities

- Licensed gross national wireless spectrum holdings averaging 160.4 MHz.
- Coast-to-coast digital 4G LTE network, first launched in major centres in February 2012:
  - Overall coverage of 97% of Canada's population, with the LTE advanced portion of the network covering 74% of Canada's population, at December 31, 2016. Coverage includes roaming agreements.
  - Coverage and capacity were enhanced with the deployment of the 700 MHz wireless spectrum licences acquired in 2014 and the deployment of the 2500 MHz wireless spectrum acquired in 2015. We plan to utilize other spectrum licences purchased in recent years in combination with unlicensed supplementary spectrum, as network and device ecosystems evolve.
  - Manufacturer-rated peak data download speeds of up to 110 Mbps on the LTE network (typical speeds of 12 to 45 Mbps expected with a compatible device).[1]
  - Manufacturer-rated peak data download speeds of up to 225 Mbps on the LTE advanced portions of the network (typical speeds of 12 to 65 Mbps expected with a compatible device).[1]
  - Reverts to the HSPA+ network and speeds when customers are outside LTE coverage areas.
- Coast-to-coast digital 4G HSPA+ network, launched in November 2009:
  - Coverage of 99% of Canada's population, with typical speeds of 4 to14 Mbps with a compatible device. [1]
  - International voice and data roaming capabilities in more than 225 countries.
- Suite of IoT solutions to support Canadian businesses locally and internationally, including asset tracking, fleet management, remote monitoring, digital signage and security.

Competition overview

- Facilities-based national competitors Rogers Wireless and Bell Mobility, as well as provincial or regional telecommunications companies SaskTel, MTS (pending its acquisition by BCE), Eastlink, Videotron, Tbaytel and Shaw Communications' Freedom Mobile (formerly Wind Mobile).
- Fixed wireless services.
- Resellers of competitors' wireless networks.
- Services offered by cable-TV and wireless competitors over wireless and metropolitan Wi-Fi networks.

(1) Actual speed may vary based on device being used, geographical topography and environmental conditions, network congestion, signal strength and other factors.

Wireline products and services: Residential services in British Columbia, Alberta and Eastern Quebec; healthcare solutions; business services across Canada; and contact centre and outsourcing solutions offered internationally

Our products and services

- Voice – Reliable fixed phone service with long distance and advanced calling features; voice over IP (VoIP) supporting voice services into the future.
- Internet – Fixed high-speed Internet access (HSIA) service with email and a comprehensive suite of security solutions. Also includes HSIA over LTE and TELUS PureFibre™, with reliable Wi-Fi, and cloud storage. Only provider in Western Canada offering symmetrical 150 Mbps download and upload speeds.
- TELUS TV – High-definition entertainment service with Optik TV and TELUS Satellite TV. Optik TV offers extensive content options and innovative features such as PVR Anywhere, Remote Recording, Optik Smart Remote channel browsing with a tablet or smartphone, and Optik on the go. TELUS Satellite TV service is offered only in B.C. and Alberta by way of an agreement with Bell Canada. Only provider in Western Canada offering 4K TV capability.
- IP networks and applications – Converged voice, video and data services and Internet access, offered on a high-performing network.
- Contact centre, business process and IT outsourcing solutions in more than 30 languages – Managed solutions providing low-cost and scalable infrastructure in North America, Central America, Europe and Asia.
- Hosting, managed IT and cloud-based services – Cybersecurity and other solutions with ongoing assured availability of telecommunications, networks, servers, databases, files and applications, with critical applications stored in our Internet data centres (IDCs) across Canada.
- Healthcare – TELUS Health's proprietary technology, including pharmacy management, electronic medical records, electronic health records, remote patient monitoring and online settlement claims management solutions.
- Conferencing and collaboration – Full range of equipment and application solutions to support meetings and webcasts by means of phone, video and Internet.

Our capabilities

- Ongoing connection of homes and businesses directly to fibre-optic cables; now over one million homes and businesses addressable by PureFibre in B.C., Alberta and Eastern Quebec.
- An IP-based national network overlaying an extensive switched network in B.C., Alberta and Eastern Quebec, as well as global interconnection arrangements.
- Eight data centres in six communities directly connected to the national TELUS IP network, creating an advanced and regionally diverse computing infrastructure in Canada.
- Wireline residential access line services provided to an estimated 34% of households in B.C. and Alberta, and 60% of households in our Eastern Quebec region.
- Access to businesses across Canada through our networks, as well as competitive local exchange carrier status.
- ADSL2+ or VDSL2 coverage reaching more than 2.9 million homes and businesses in B.C., Alberta and Eastern Quebec.
- Broadcasting distribution licences allowing us to offer digital television services in incumbent territories, as well as licences to offer commercial video-on-demand services.
- Business process outsourcing services with global delivery capabilities through our multi-national, multi-language programs, supported by approximately 25,750 full-time equivalent (FTE) employees across North America, Central America, Europe and Asia, as at December 31, 2016.
- Technology solutions to assist healthcare providers, consumers, health regions, hospitals, insurers and employers.

Competition overview

- Substitution of wireless services, including our own wireless offerings, for residential local and long distance services. The percentage of households with wireless-only telephone services (among all providers, including TELUS) is estimated to be 41% in B.C. and Alberta, and 16% in Eastern Quebec.
- Bell Canada, MTS (pending its acquisition by BCE), Rogers Communications, Shaw Communications, and Videotron (in Quebec).
- Allstream Inc., a national telecommunications service provider for business customers, owned by Zayo Group Holdings Inc., a U.S.-based provider of communications infrastructure services.
- Cable-TV competitors for Internet and entertainment services, such as Shaw Communications (in B.C. and Alberta) and Cogeco Cable and Videotron (in Eastern Quebec).
- Various others that offer resale or voice over IP-based (VoIP-based) local, long distance and Internet services.
- Over-the-top (OTT) voice and entertainment services, such as Skype and Netflix.
- Satellite-based entertainment and Internet services offered by Bell Canada, Shaw Communications and Xplornet.
- Competitors for contact centre services, such as Convergys, Sykes and Verizon LiveSource.
- Fixed wireless services.
- Customized managed outsourcing solutions competitors, such as system integrators CGI Group Inc., EDS division of HP Enterprise Services and IBM.
- Competitors for TELUS Health include providers of EMR and pharmacy management products, such as Omnimed, Familiprix, Kroll, Fillware and ARI. Competitors also include systems integrators, health service providers, such as Loblaws and McKesson that have also become vertically integrated and own a mix of health services delivery, IT solutions and related services, and potentially, global providers such as ATEB that could achieve expanded Canadian footprints.

4.2 Operational resources

Resources

Our team

- Approximately 51,250 employees at the end of 2016 (approximately 50,475 FTE employees across a wide range of operational functions, with 24,725 FTE employees in Canada and 25,750 FTE employees internationally).
- Approximately 10,950 of our employees are covered by collective agreements. The agreement with the Telecommunications Workers Union (TWU), United Steel Workers Local Union 1944, which covers 9,500 employees, expires on December 31, 2021. The agreement with the Syndicat des agents de maîtrise de TELUS (SAMT), which covers 760 team members in the TELUS Quebec region, expires on March 31, 2022. The agreement with the Syndicat québécois des employés de TELUS (SQET), which covers 630 employees, expires on December 31, 2022.
- Operations at Canadian and international locations to support contact centres and business process outsourcing services for external wholesale customers, as well as for certain functions internally.
- Employee compensation programs that support a high-performance culture and contain market-driven and performance-based components (bonus and share-based compensation) to attract and retain key employees.
- Succession plans to cover ongoing retirement, ready access to labour in Canada and, for contact centres and specific support functions, in various international locations. We also use external contractors and consultants.
- Training, mentoring and development programs to maintain and improve employee engagement levels and enhance the customer experience.

Resources

Our brand and distribution channels

- A well-established and recognizable national brand (TELUS, the future is friendly ®).
- Koodo Mobile® – A national provider of postpaid and prepaid wireless voice and data services with a broad distribution network, including TELUS-owned stores, dealers and third-party electronics retailers.
- Public Mobile – Offers a prepaid wireless service, with a web-based distribution channel, and provides customers with a SIM-only service.
- Optik TV brand, launched in mid-2010.
- Our sales and support distribution channels:
  - Wireless services are supported through a broad network of TELUS-owned and branded stores, including our 50% ownership of the kiosk channel WOW! Mobile, an extensive distribution network of exclusive dealers and large third-party electronics retailers (e.g. Best Buy, WalMart and London Drugs) and a white label brand for a premier retail chain, as well as online self-serve applications, mass marketing campaigns and customer care telephone agents.
  - Wireline residential services are supported through TELUS-owned and branded stores, including third-party electronics retailers, as well as mass marketing campaigns, customer care telephone agents, and online and TV-based self-serve applications.
  - TELUS Health provides some of its consumer services – personal health records and home health monitoring – in partnership with provincial governments.
  - Business services, including healthcare, across wireless and wireline are supported through certain dedicated stores for business, TELUS sales representatives, product specialists, independent dealers and online self-serve applications for small and medium-sized businesses (SMBs). Business process outsourcing services are supported through sales representatives and client relationship management teams.
  - Dedicated direct-to-consumer channel of over 600 field sales agents.

Our technology, systems and properties

- TELUS is a highly complex technology-enabled company with a multitude of IT systems and processes.
- Broadcasting distribution licences for providing entertainment services.
- Our Intangible assets include wireless spectrum licences from Innovation, Science and Economic Development Canada (ISED), which are essential to providing wireless services.
- Network facilities are constructed under or along streets and highways, pursuant to rights-of-way granted by the owners of land, including municipalities and the Crown, or on freehold land owned by TELUS.
- Real estate properties (owned or leased) include administrative office space, work centres and space for telecommunications equipment. Some buildings are constructed on leasehold land and the majority of wireless towers are situated on lands or buildings held under leases or licences with varying terms. We also participate in two real estate re-development joint ventures. (See *Section 7.11*.)
- TELUS International provides customer care, IT and business process services by utilizing on-site facilities, including contact centre solutions, and by utilizing international data networks and data centres. Global rerouting capabilities and geographic diversity are supported by facilities located in North America, Central America, Europe and Asia.
- Through its proprietary technology, including pharmacy management, electronic medical records, electronic health records, remote patient monitoring and online settlement claims management software solutions, TELUS Health facilitates the integration of electronic health records from the home to the doctor's office to the hospital, making critical health information available to healthcare providers over wireless and wireline broadband networks.

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 shares, issue new debt, issue new debt to replace existing debt with different characteristics 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 the 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 Board's assessments have resulted in 12 semi-annual dividend increases from 2011 to 2016, with annual increases being approximately 10%. Our long-term dividend payout ratio guideline is 65 to 75% of prospective net earnings per share. Based on dividends announced as of February 8, 2017, and 590 million shares outstanding at December 31, 2016, dividend declarations would total approximately $1.13 billion in 2017, before taking into account any Common Shares purchased and cancelled under our 2017 NCIB. There can be no assurance that we will maintain a dividend growth program through 2019. *See Section 10.7 Financing, debt requirements and returning cash to shareholders.*
- Dividends declared in 2016 totalled $1.84 per share, an increase of 9.5% over 2015. On February 8, 2017, a first quarter dividend of $0.48 per share was declared, payable on April 3, 2017, to shareholders of record at the close of business on March 10, 2017. The first quarter dividend for 2017 reflects a cumulative increase of $0.04 per share or 9.1% from the $0.44 per share dividend paid in April 2016.

Purchase of Common Shares under our multi-year NCIB

- On May 5, 2016, we announced our intention to renew our NCIB in each of the next three years in order to make purchases of our Common Shares for amounts of up to $250 million in each calendar year. In September 2016, we received approval from the Toronto Stock Exchange (TSX) for a new 2017 NCIB to purchase and cancel up to 8 million Common Shares for consideration of up to $250 million over a 12-month period, commencing September 30, 2016. TELUS will purchase Common Shares only when and if we consider it opportunistic, subject to any purchases that may be made under an automatic share purchase plan (ASPP). An employee benefit plan trust purchased the Common Shares paid to non-executive employees as part of the immediately vesting transformative compensation expense in the fourth quarter of 2016 and was permitted to do so under the NCIB. The employee benefit plan trust purchased and cancelled a nominal number of TELUS Common Shares for $4 million as part of the 2017 NCIB.
- Share purchases under the 2017 NCIB represent up to 1.4% of outstanding Common Shares as of September 16, 2016. Such purchases may be made through the facilities of the TSX, the New York Stock Exchange (NYSE) and alternative trading platforms as may be permitted by applicable securities laws and regulations. Shares will be purchased only when and if we consider it opportunistic. There can be no assurance that we will complete our 2017 NCIB program or that we will renew and complete our NCIB program in each of the next two years, as any decision to purchase shares will depend on the assessment by our Board and the determination of the Company's financial position and outlook, and the market price of TELUS Common Shares. See risk discussion in *Section 10.7 Financing, debt requirements and returning cash to shareholders*.
- Under the 2016 NCIB, which came into effect on September 15, 2015 and concluded on September 14, 2016, we purchased and cancelled 9,691,400 of our Common Shares for approximately $380 million, reflecting an average share purchase price of $39.14. The purchased and cancelled shares represented 1.6% of the Common Shares outstanding prior to commencement of the 2016 NCIB.
- We have also entered into an ASPP with a broker for the purpose of permitting us to purchase our Common Shares under our NCIB at times when we would not be permitted to trade in our shares, including regularly scheduled quarterly blackout periods. Such purchases will be determined by the broker in its sole discretion based on parameters that we established prior to any blackout period, in accordance with TSX rules and applicable securities laws. The ASPP has been approved by the TSX, and may be implemented from time to time in the future.

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 $613 million at December 31, 2016, all of which was denominated in U.S. dollars (U.S.$456 million), compared to $256 million (U.S.$185 million) at December 31, 2015.
- Proceeds from securitized trade receivables were $100 million at December 31, 2016, unchanged from December 31, 2015.

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*.)

- Maintain investment grade credit ratings in the range of BBB+ or the equivalent — On February 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 December 31, 2016, the ratio was 2.69 times, outside of the range, primarily due to the funding of spectrum licences acquired in wireless spectrum auctions held during 2014 and 2015. We will endeavour to return the ratio to within this objective range in the medium term, as we believe that this range is supportive of our long-term strategy. (See *Section 7.5 Liquidity and capital resource measures* .)

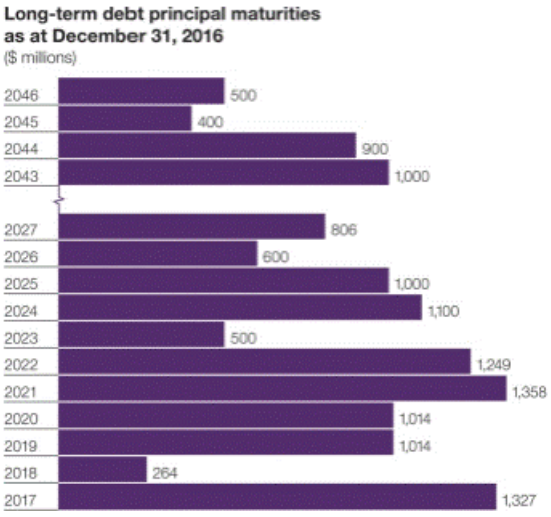
- Dividend payout ratio of 65 to 75% of net earnings per share on a prospective basis — Our target ratio is on a prospective basis. The dividend payout ratio we present in this MD&A is a historical measure utilizing the last four quarters of dividends declared and earnings per share, and is disclosed for illustrative purposes in evaluating our target guideline. As at December 31, 2016, the historical ratio of 89% and the adjusted historical ratio of 77% exceeded the objective range. We estimate that we will be within our target guideline on a prospective basis. (See *Section 7.5 Liquidity and capital resource measures* .)

- Generally maintain a minimum of $1 billion in unutilized liquidity — As at December 31, 2016, our unutilized liquidity was more than $1 billion. (See *Section 7.6 Credit facilities*.)

Financing and capital structure management plans for 2017

At the end of 2016, our long-term debt (excluding unamortized discount) was $13.0 billion and the weighted average term to maturity was approximately 10.4 years (excluding commercial paper and the revolving component of the TELUS International credit facility). Our weighted average interest rate on long-term debt (excluding commercial paper and the revolving component of the TELUS International credit facility) was 4.22% at December 31, 2016, as compared to 4.32% one year earlier. Aside from Short-term borrowings of $100 million, commercial paper of $613 million (U.S.$456 million) and the utilized revolving component of the TELUS International credit facility of $58 million (U.S.$44 million), all of our debt was on a fixed-rate basis.

During 2017, we may issue senior Notes to refinance maturing debt or to use for general corporate purposes. Anticipated free cash flow and sources of capital are expected to be more than sufficient to meet requirements. For the related risk discussion, see *Section 10.7 Financing, debt requirements and returning cash to shareholders.*



4.4 Disclosure controls and procedures and changes in internal control over financial reporting

Disclosure controls and procedures

Disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the President and Chief Executive Officer (CEO) and the Executive Vice-President and Chief Financial Officer (CFO), on a timely basis so that appropriate decisions can be made regarding public disclosure.

The CEO and the CFO have assessed the effectiveness of our disclosure controls and procedures related to the preparation of this MD&A and the December 31, 2016, Consolidated financial statements. They have concluded that our disclosure controls and procedures were effective, at a reasonable assurance level, in ensuring that material information relating to TELUS and its consolidated subsidiaries would be made known to them by others within those entities, particularly during the period in which the MD&A and the Consolidated financial statements

were being prepared.

Internal control over financial reporting

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS-IASB and the requirements of the Securities and Exchange Commission in the United States, as applicable. TELUS' CEO and CFO have assessed the effectiveness of our internal control over financial reporting as of December 31, 2016, in accordance with the criteria established in *Internal Control – Integrated Framework (2013)*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, TELUS' CEO and CFO have concluded that our internal control over financial reporting is effective as of December 31, 2016, and expect to certify TELUS' annual filings with the Form 40-F, as required by the United States' *Sarbanes-Oxley Act of 2002*, and TELUS' Annual Information Form, as required by National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings* .

Deloitte LLP, our auditor, has audited our internal controls over financial reporting as at December 31, 2016.

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 in 2016.

5. Discussion of operations

This section contains forward-looking statements, including those with respect to our expectations for capitalization of long-term debt interest, deployment of wireless spectrum licences, ARPU growth, wireless retention spending and high-speed Internet subscriber growth trends 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 Selected annual information

The selected information presented below has been derived from, and should be read in conjunction with, our audited December 31, 2016 and December 31, 2015 Consolidated financial statements, which were prepared under IFRS-IASB. All currency amounts are in Canadian dollars, unless otherwise specified.

Selected annual information

Years ended December 31 ($ in millions, except per share amounts)	2016	2015	2014
Operating revenues	**12,799**	12,502	12,002
Net income	**1,236**	1,382	1,425
Net income attributable to Common Shares	**1,223**	1,382	1,425
Net income per Common Share			
Basic earnings per share (basic EPS)	**2.06**	2.29	2.31
Diluted	**2.06**	2.29	2.31
Cash dividends declared per Common Share	**1.84**	1.68	1.52

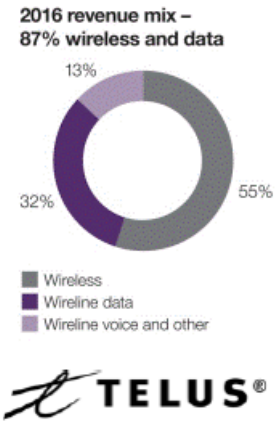
At December 31 ($ millions)	2016	2015	2014
Total assets	**27,729**	26,406	23,217
Current maturities of long-term debt	**1,327**	856	255
Non-current financial liabilities[1]			
Provisions	**57**	55	29
Long-term debt	**11,604**	11,182	9,055
Other long-term financial liabilities	**170**	150	128
Total non-current financial liabilities	**11,831**	11,387	9,212
Deferred income taxes	**2,107**	2,155	1,936
Common equity	**7,917**	7,672	7,454

(1) In our specific current instance, financial liabilities do not include liabilities that are excluded by definition (e.g. employee benefits and share-based compensation liabilities) or liabilities that do not involve a future outlay of economic resources (e.g. deferred recognition of customer activation and connection fees; deferred gains on sale-leaseback of buildings).

Operating revenues: Combined wireless revenue and wireline data revenue represented approximately 87% of consolidated revenues in 2016 (86% in 2015 and 84% in 2014).

Total assets: Growth in Total assets includes increases in Property, plant and equipment and Intangible assets, which increased by a combined $1,107 million in 2016 and a combined $2,801 million in 2015. These increases resulted primarily from our ongoing investments in broadband networks and purchases of wireless spectrum licences. See *Section 7.3 Cash used by investing activities*.

For changes in **Long-term debt**, see *Section 6: Changes in financial position* and *Section 7.4 Cash provided (used) by financing activities*.



5.2 Summary of consolidated quarterly results, trends and fourth quarter recap

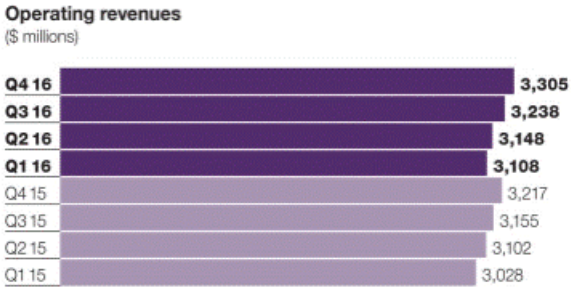
Summary of quarterly results

($ millions, except per share amounts)	2016 Q4	2016 Q3	2016 Q2	2016 Q1	2015 Q4	2015 Q3	2015 Q2	2015 Q1
Operating revenues	**3,305**	**3,238**	**3,148**	**3,108**	3,217	3,155	3,102	3,028
Operating expenses								
Goods and services purchased[1]	**1,574**	**1,426**	**1,331**	**1,300**	1,482	1,394	1,372	1,284
Employee benefits expense[1]	**962**	**681**	**628**	**668**	757	693	649	609
Depreciation and amortization	**533**	**515**	**499**	**500**	518	471	464	456
Total operating expenses	**3,069**	**2,622**	**2,458**	**2,468**	2,757	2,558	2,485	2,349
Operating income	**236**	**616**	**690**	**640**	460	597	617	679
Financing costs	**134**	**129**	**134**	**123**	114	106	110	117
Income before income taxes	**102**	**487**	**556**	**517**	346	491	507	562
Income taxes	**15**	**132**	**140**	**139**	85	126	166	147
Net income	**87**	**355**	**416**	**378**	261	365	341	415
Net income attributable to Common Shares	**81**	**348**	**416**	**378**	261	365	341	415
Net income per Common Share:								
Basic (basic EPS)	**0.14**	**0.59**	**0.70**	**0.64**	0.44	0.61	0.56	0.68
Adjusted basic EPS[2]	**0.53**	**0.65**	**0.70**	**0.70**	0.54	0.66	0.66	0.70
Diluted	**0.14**	**0.59**	**0.70**	**0.64**	0.44	0.61	0.56	0.68
Dividends declared per Common Share	**0.48**	**0.46**	**0.46**	**0.44**	0.44	0.42	0.42	0.40
Additional information:								
EBITDA[2]	**769**	**1,131**	**1,189**	**1,140**	978	1,068	1,081	1,135
Restructuring and other costs[2]	**348**	**60**	**23**	**48**	99	51	59	17
EBITDA — excluding restructuring and other costs[2]	**1,117**	**1,191**	**1,212**	**1,188**	1,077	1,119	1,140	1,152
Cash provided by operating activities	**732**	**1,032**	**892**	**563**	870	1,025	943	718
Free cash flow[2]	**(191)**	**98**	**126**	**108**	197	310	300	271

(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

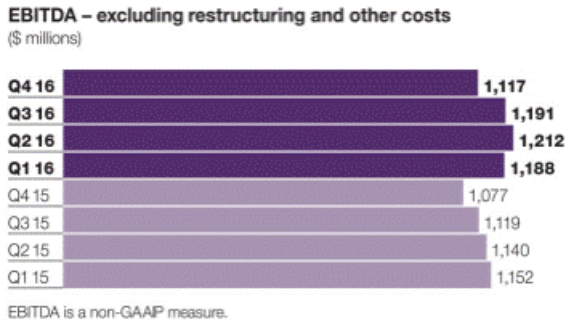
The consolidated revenue trend reflects increases in: (i) wireline data service revenues, driven by business process outsourcing, Internet, enhanced data services, TELUS TV services and TELUS Health revenues, with the increases in Internet and TV service revenues being generated by higher revenue per customer and subscriber growth; and (ii) wireless network revenue generated from growth in both our average revenue per subscriber unit per month (ARPU) and subscriber base. This growth was partially offset by the continued decline in wireline voice revenues and the decline in wireless and wireline equipment revenue. For additional information on wireless and wireline revenue and subscriber trends, see *Section 5.4 Wireless segment* and *Section 5.5 Wireline segment*. For discussion of industry trends, see *Section 9*.



The trend in Goods and services purchased expense generally reflects increasing wireless acquisition and retention costs, including equipment expenses associated with higher-value smartphones in the sales mix and increased handset costs; increasing wireless customer service, administrative, external labour and distribution channel expenses to support growth in our subscriber base; increased wireline TV costs of sales associated with a growing subscriber base; and

higher non-labour restructuring and other costs in 2015 mainly from real estate rationalization. These were partly offset by lower transit and termination costs and wireline equipment costs.

Employee benefits expense in the fourth quarter of 2016 includes a $305 million immediately vesting transformative compensation (transformative compensation) expense, as described in *Collective bargaining and transformative change compensation* in *Section 1.3*, in lieu of general salary increases for 2017 and 2018 for substantially all of our Canadian-situated employees and other concessions under the collective agreement. Excluding this transformative compensation expense, the trend in Employee benefits expense reflected moderating wages and salaries resulting from a decrease in the number of full-time equivalent (FTE) domestic employees, partly offset by increases in TELUS International compensation and in the number of employees to support increased business process outsourcing revenue growth.



The general trend in Depreciation and amortization reflects increases due to growth in capital assets supporting the expansion of our broadband footprint and enhanced long-term evolution (LTE) network coverage, as well as the 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 prepare for a more efficient and timely evolution to 5G.

The general trend in Financing costs reflects an increase in long-term debt outstanding, mainly associated with significant investments in wireless spectrum licences acquired during wireless spectrum licence auctions in 2014 and 2015 and our generational investments in fibre to homes and businesses. Financing costs also include the Employee defined benefit plans net interest expense, which decreased for 2016, primarily due to the decrease in the defined benefit plan deficit at December 31, 2015, as compared to one year earlier, partly offset by an increase in the discount rate. Moreover, Financing costs are net of capitalized interest related to spectrum licences acquired during the wireless spectrum licence auctions, which we expect to deploy into our existing network in future periods. Capitalization of long-term debt interest is expected to cease in 2017, as cell sites have become ready to utilize the spectrum frequencies. Financing costs for the eight periods shown included varying amounts of foreign exchange gains or losses and varying amounts of interest income, including $20 million of interest income in the second quarter of 2015 resulting from the settlement of prior years' income tax-related matters.

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 tax of prior periods, including any related after-tax interest on reassessments. The trend in basic EPS is also impacted by the share purchases under our normal course issuer bid (NCIB) program.

The trend in Cash provided by operating activities reflects generally higher income tax payments and increased interest payments and higher restructuring and other disbursements, partly offset by growth in consolidated EBITDA — excluding restructuring and other costs. The trend in free cash flow reflects the factors affecting Cash provided by operating activities, as well as increases in capital expenditures (excluding spectrum licences). For further discussion on trends, see *Section 5.4 Wireless segment, Section 5.5 Wireline segment* and *Section 9.2 Telecommunications industry general outlook and trends.*

Fourth quarter recap

Results for the fourth quarter of 2016 were discussed in Management's review of operations attached to our February 9, 2017 news release.

- **Consolidated operating revenues** increased by $88 million or 2.7% in the fourth quarter of 2016 when compared to the fourth quarter of 2015, primarily reflecting growth in wireless network revenue and wireline data revenues, partly offset by the continuing decline in wireline voice revenues, consistent with the results for the full year, discussed in the following sections.

- Consolidated **EBITDA** decreased by $209 million or 21% in the fourth quarter of 2016 when compared to the fourth quarter of 2015. The decrease was largely due to the $305 million transformative compensation expense recorded in 2016. **Adjusted EBITDA**, which excludes restructuring and other costs, as well as real estate net gains and equity income related to real estate joint venture developments, increased by $33 million or 3.1% in the fourth quarter. The increase was due to growth in wireless network revenue and wireline data revenues, improvements in Internet, business process outsourcing, TELUS TV and TELUS Health margins; and execution on our operational efficiency and effectiveness initiatives, partly offset by higher wireless acquisition and retention costs and continued declines in legacy wireline voice revenues. Had 2015 adjusted EBITDA also excluded the non-recurring gain on certain real estate assets in the fourth quarter of 2015, adjusted EBITDA would have reflected an increase of approximately $53 million or 5.1% in the fourth quarter of 2016.

- **Net income attributable to Common Shares** decreased by $180 million or 69% in the fourth quarter of 2016 when compared to the fourth quarter of 2015, largely due to the transformative compensation expense recorded in 2016. **Basic EPS** decreased by $0.30 in the fourth quarter of 2016 when compared to the same period in 2015. When excluding restructuring and other costs, income tax-related adjustments, net gains and equity income from real estate joint venture developments in 2016, adjusted Net income decreased by 2.5% in the fourth quarter of 2016, while adjusted basic EPS decreased by $0.01.

- **Cash provided by operating activities** decreased by $138 million in the fourth quarter of 2016 when compared to the same period in 2015. The decrease was mainly due to lower EBITDA, resulting from the $305 million transformative compensation expense, partly offset by operating working capital changes.

- **Cash used by investing activities** increased by $223 million in the fourth quarter of 2016 when compared to the same period in 2015, mainly due to increased capital expenditures and changes in working capital amounts related to acquisitions in current and prior periods.

- **Cash provided by financing activities** increased by net $301 million in the fourth quarter of 2016 when compared to the same period in 2015, as a result of lower purchases of shares under our NCIB program and an increase in net long-term debt issued.

5.3 Consolidated operations

The following is a discussion of our consolidated financial performance. Segment information in *Note 5* of the Consolidated financial statements is regularly reported to our Chief Executive Officer (CEO), the chief operating decision-maker. 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 — capital expenditures.*



Operating revenues

Years ended December 31 ($ millions)	2016	2015	Change
Service	**12,000**	11,590	3.5 %
Equipment	**725**	840	(13.7)%
Revenues arising from contracts with customers	**12,725**	12,430	2.4 %
Other operating income	**74**	72	2.8 %
	12,799	12,502	2.4 %

Consolidated operating revenues increased by $297 million in 2016.

- **Service revenue** increased by $410 million in 2016, primarily reflecting growth in wireline data services and wireless network revenue, partly offset by the continuing decline in wireline voice revenues. Wireline data service revenue reflects increased Internet and enhanced data revenue, increased business process outsourcing revenue, and higher Internet, enhanced data and TELUS TV revenue. Internet, enhanced data, TV revenues reflect subscriber growth and higher revenue per customer. Wireless network revenue reflects growth in blended ARPU and the wireless subscriber base.

- **Equipment revenue** decreased by $115 million in 2016, primarily reflecting a $77 million decrease in wireless equipment revenue from a combination of higher per-unit subsidies, lower retention volumes and the discontinuance of Black's Photography revenue from the closure of stores in August 2015, partly offset by higher-value smartphones in the sales mix. Also reflected is lower wireline equipment revenue of $38 million, primarily from lower sales activity in the business market in part from the economic slowdown and a focus on providing managed services rather than equipment-only sales.

- **Other operating income** increased by $2 million in 2016, mainly due to net gains and equity income related to real estate joint venture developments, gains from the sale of property, plant and equipment in 2016, and the gain from the exchange of wireless spectrum licences in the second quarter of 2016, partly offset by the non-recurrence of gains on the sale of certain real estate assets in the fourth quarter of 2015 and a decrease in amounts recognized from the regulatory price cap deferral account for provisioning broadband Internet services to eligible rural and remote communities.

Operating expenses

Years ended December 31 ($ millions)	2016	2015	Change
Goods and services purchased	**5,631**	5,532	1.8%
Employee benefits expense	**2,939**	2,708	8.5%
Depreciation	**1,564**	1,475	6.0%
Amortization of intangible assets	**483**	434	11.3%
	10,617	10,149	4.6%

Consolidated operating expenses increased by $468 million in 2016. This increase included the transformative compensation expense of $305 million recorded in the fourth quarter of 2016.

- **Goods and services purchased** increased by $99 million in 2016 reflecting higher wireless acquisition and retention spending (including the effect of higher supplier costs of handsets, partially due to the decline in the Canadian dollar exchange rate vs. the U.S. dollar over the last two years), as well as increased roaming costs. The increases were also due to higher wireline network operating and administrative costs to support our growing subscriber base, and higher advertising and promotional expenses in support of bundled offerings and our response to heightened competitive intensity, as well as higher TV costs of sales due to a larger subscriber base, partly offset by lower transit and termination costs, ongoing operational efficiency and effectiveness initiatives, and lower equipment costs related to the decline in equipment revenue.

- **Employee benefits expense** increased by $231 million in 2016, mainly due to the $305 million transformative compensation expense recorded in the fourth quarter of 2016. See *Collective bargaining and transformative change compensation* in *Section 1.3*.

  Excluding the transformative compensation expense, employee compensation decreased by $74 million, mainly due to lower employee-related restructuring costs and realizing benefits from operational efficiency and effectiveness initiatives, partly offset by an increase in TELUS International employees and compensation to support growth in business process outsourcing revenue.

- **Depreciation** increased by $89 million in 2016 due to the impact of our continuing program of asset life studies and increased expenditures associated with capital assets (such as the broadband network and the wireless LTE network), partly offset by asset retirements of $9 million in 2015 relating to the closure of Black's Photography retail stores.

- **Amortization of intangible assets** increased by $49 million in 2016, reflecting increased expenditures associated with the intangible asset base, partially offset by software asset life adjustments arising from our continuing program of asset life studies.

Operating income

Years ended December 31 ($ millions)	2016	2015	Change
Wireless EBITDA (see *Section 5.4*)	**2,906**	2,806	3.6%
Wireline EBITDA (see *Section 5.5*)	**1,323**	1,456	(9.1)%
Depreciation and amortization (discussed above)	**(2,047)**	(1,909)	(7.2)%
	2,182	2,353	(7.3)%

Operating income decreased by $171 million in 2016. Excluding the effects of the $305 million transformative compensation expense recorded in the fourth quarter of 2016, Operating income increased by $134 million. For a discussion of consolidated EBITDA and adjusted EBITDA, please see *Operating highlights* in *Section 1.3*.

Financing costs

Years ended December 31 ($ millions)	2016	2015	Change
Gross interest expenses	**554**	515	7.6%
Capitalized long-term debt interest	**(52)**	(45)	15.6%
Interest expense	**502**	470	6.8%

Employee defined benefit plans net interest	**6**	27	(77.8)%
Interest income	**(3)**	(25)	88.0%
Foreign exchange losses (gains)	**15**	(25)	n/m
	520	447	16.3%

Financing costs increased by $73 million in 2016, mainly due to the following factors:

- **Gross interest expenses**, prior to capitalization of long-term debt interest, increased by $39 million in 2016, primarily due to the increase in average long-term debt balances outstanding, including the full-year impact of increased debt related to the purchase of spectrum licences in 2015, 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 credit facility) was 4.22% at December 31, 2016, as compared to 4.32% 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 expect to deploy in our existing network in future periods. 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. Capitalization of interest is expected to cease in 2017.

- **Employee defined benefit plans net interest** decreased by $21 million in 2016, mainly from the decrease in the defined benefit plan deficit at December 31, 2015, to $53 million from $598 million one year earlier, partly offset by a higher discount rate.

- **Interest income** in 2015 was derived primarily from $23 million interest income related to the settlement of prior years' income tax related matters.

- **Foreign exchange losses (gains)** have fluctuated as the weakening of the Canadian dollar relative to the U.S. dollar in 2016 combined with the increase in 2016 of foreign exchange derivatives being designated as held for hedging, rather than designated as held for trading.



Income taxes

Years ended December 31 ($ millions, except tax rates)	2016	2015	Change
Income taxes computed at applicable statutory rates	**444**	505	(12.1)%
Revaluation of deferred income tax liability to reflect future statutory income tax rates	**(4)**	48	n/m
Adjustments recognized in the current period for income taxes of prior periods	**(12)**	(30)	60.0 %
Other	**(2)**	1	n/m
	426	524	(18.7)%
Income taxes computed at applicable statutory rates (%)	**26.7**	26.5	0.2 pts.
Effective tax rates (%)	**25.6**	27.5	(1.9) pts.

Total income tax expense decreased by $98 million in 2016, primarily due to lower Income before income taxes, including the effects of the transformative compensation expense recorded in the fourth quarter of 2016. The decrease also resulted from revaluations of deferred income tax liabilities in 2016 to reflect the provincial income tax rate reduction in Quebec beginning in 2017, and the $48 million non-cash adjustment in the second quarter of 2015 to revalue deferred income tax liabilities arising from an increase in the Alberta provincial corporate tax rate, partly offset by lower recoveries related to the settlement of prior years' income tax-related matters (excluding related interest income).



Comprehensive income

Years ended December 31 ($ millions)	2016	2015	Change
Net income	**1,236**	1,382	(10.6)%
Other comprehensive income (loss) (net of income taxes):			

Items that may be subsequently reclassified to income	**(15)**	21	n/m
Item never subsequently reclassified to income — Employee defined benefit plans re-measurements	**—**	445	(100.0)%
Comprehensive income	**1,221**	1,848	(33.9)%

Comprehensive income decreased by $627 million primarily due to changes in employee defined benefit plan re-measurement amounts and lower 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

Postpaid subscribers	**Prepaid subscribers**	**Blended ARPU**	**Postpaid churn**
2016: 7,550,000 +2.7%	**2016**: 1,035,000 (6.3)%	**2016**: $65.10 +2.6%	**2016**: 0.95% +0.01 pts.
2015: 7,352,000	2015: 1,105,000	2015: $63.45	2015: 0.94%

Wireless trends and seasonality

The historical trend in wireless network revenue reflects growth in both our ARPU and subscriber base. This growth, coupled with higher-value smartphones in the sales mix, was partially offset by the decline in wireless equipment revenue, reflecting higher per-unit subsidies and lower retention volumes. Retention volumes declined due to (i) the effects on contract renewals of higher handset prices (including the effect of higher supplier costs due to depreciation of the Canadian dollar relative to the U.S. dollar over the last two years), as well as an increasing number of customers choosing to stay on month-to-month service; (ii) increased competitive intensity; and (iii) economic conditions resulting in customers purchasing fewer handsets.

The wireless ARPU growth trend has increased in 2016 due to a higher mix of data share plans and an increased mix of higher-rate plans, including the new Premium Plus plans launched in June 2016. 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 response to increased frequency of customer data usage notifications and offloading of data traffic to increasingly available Wi-Fi hotspots. ARPU is expected to continue to increase modestly in 2017, as a result of the continued growth in data usage and the ongoing shift in our subscriber base towards higher-value postpaid customers, as seen in the third and fourth quarters of 2016. 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.

Retention spending as a percentage of network revenue has increased to 14.7% in 2016 from 13.9% in 2015, mainly from an increase in the sales mix of higher-subsidy smartphones and competitive pressures. While retention volumes decreased in 2016, we have generally experienced a higher volume of contract renewals than prior to 2015. We expect this trend to continue with two-year contracts in the consumer and small business base. We may also experience continuing pressure on our postpaid subscriber churn if competitive intensity continues, in part due to an increase in customers on expired contracts, as well as customers bringing their own devices and therefore not entering into term contracts. Accordingly, our wireless segment historical operating results and trends may not be reflective of results and trends for future periods.

Historically, there have been significant third and fourth quarter seasonal effects reflected in 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 events such as back to school, Black Friday and Christmas. 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, typically followed by sequential increases in wireless EBITDA from the fourth quarter through to the second quarter. 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 spikes become less pronounced. In addition, customers are opting for higher-capacity data plans resulting in less variability in chargeable data usage. See *Section 8.2 Accounting policy developments* for the timing of revenue recognition and classification of revenue effects of IFRS 15, *Revenue from Contracts with Customers.*

Wireless operating indicators

At December 31	**2016**	**2015**	**Change**
Subscribers[1] (000s):			
Postpaid	**7,550**	7,352	2.7%
Prepaid	**1,035**	1,105	(6.3)%
Total	**8,585**	8,457	1.5%
Postpaid proportion of subscriber base (%)	**87.9**	86.9	1.0pts.
HSPA+ population coverage[2] (millions)	**35.7**	35.7	—%
LTE population coverage[2] (millions)	**35.2**	34.9	0.9%

Years ended December 31	**2016**	**2015**	**Change**
Subscriber gross additions (000s):			
Postpaid	**1,039**	1,014	2.5%

Prepaid	**360**	429	(16.1)%
Total	**1,399**	1,443	(3.0)%
Subscriber net additions (000s):			
Postpaid	**243**	244	(0.4)%
Prepaid	**(70)**	(68)	(2.9)%
Total	**173**	176	(1.7)%
Blended ARPU, per month [3] ($)	**65.10**	63.45	2.6%
Churn, per month [3] (%)			
Blended	**1.21**	1.26	(0.05)pts.
Postpaid	**0.95**	0.94	0.01pts.
Cost of acquisition (COA) per gross subscriber addition [3] ($)	**455**	418	8.9%
Retention spend to network revenue [3] (%)	**14.7**	13.9	0.8pts.

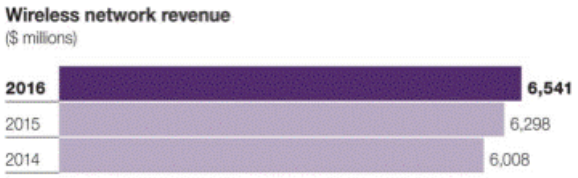
(1) Subsequent to a review of our subscriber base during the first quarter of 2016, our 2016 opening postpaid subscriber base was reduced by 45,000.
(2) Including network access agreements with other Canadian carriers.
(3) See *Section 11.2 Operating indicators*. These are industry measures useful in assessing operating performance of a wireless company, but are not measures defined under IFRS-IASB.

Operating revenues — Wireless segment

Years ended December 31 ($ in millions, except ratios)	2016	2015	Change
Network revenue	**6,541**	6,298	3.9%
Equipment and other service revenues	**537**	626	(14.2)%
Revenues arising from contracts with customers	**7,078**	6,924	2.2%
Other operating income	**37**	9	n/m
External operating revenues	**7,115**	6,933	2.6%
Intersegment network revenue	**58**	61	(4.9)%
Total operating revenues	**7,173**	6,994	2.6%

Total wireless operating revenues increased by $179 million in 2016.

Network revenue from external customers increased by $243 million in 2016. Data network revenue increased by 9.4% in 2016, reflecting: (i) a larger proportion of higher-rate plans in the revenue mix, including the new Premium Plus plans launched in June 2016; (ii) a larger proportion of customers selecting plans with larger data buckets or periodically topping up their data buckets; (iii) growth in the subscriber base; (iv) a higher postpaid subscriber mix; and (v) increasing data usage from data-intensive devices. Voice network revenue decreased by 2.8% in 2016 due to the increased adoption of unlimited nationwide voice plans and continued but moderating substitution to data services, partly offset by growth in the subscriber base.



- **Monthly blended ARPU** was $65.10 in 2016, reflecting an increase of $1.65 or 2.6%. The increase was primarily driven by effects of higher data network revenue (as described above), partly offset by the continued decline in voice revenue.

- **Gross subscriber additions** decreased by 44,000 in 2016. Postpaid gross additions increased by 25,000 due to the success of targeted promotions and our marketing efforts focused on higher-value postpaid loading, partly offset by competitive intensity and the effects of the economic slowdown, particularly in Alberta. Prepaid gross activations decreased by 69,000 mainly from competitive intensity, lower-priced postpaid offers and our marketing efforts focused on higher-value postpaid loading.

- Our **average monthly postpaid subscriber churn rate** was 0.95% in 2016, as compared to 0.94% in 2015. The continuing low postpaid subscriber churn rates during 2016 reflect our focus on executing on customers first initiatives and retention programs, partly offset by competitive intensity and the effects of the economic slowdown, particularly in Alberta, and the simultaneous expiration of two-year and three-year customer contracts in the first half of 2016. Our blended monthly subscriber churn rate was 1.21% in 2016, as compared to 1.26% in 2015. The improvement in our blended subscriber churn rate in 2016 reflects improvements in the prepaid churn rates, as well as an increase in the mix of postpaid subscribers.

- **Net subscriber additions** declined by 3,000 in 2016 due to lower gross additions, partly offset by an improvement in blended monthly churn rate. Prepaid subscriber net losses in 2016 were comparable to those in 2015 and reflect conversions to postpaid services (due to our marketing efforts focused on higher-value postpaid loading) and increased competition for prepaid services.

Equipment and other service revenues decreased by $89 million in 2016, mainly from a combination of higher per-unit subsidies, lower retention volumes, competitive intensity and the discontinuance of Black's Photography revenue from the closure of stores in August 2015, partly offset by increased postpaid gross additions and higher-value smartphones in the sales mix.

Other operating income increased by $28 million in 2016, mainly due to net gains and equity income related to real estate joint venture developments, gains from the sale of property, plant and equipment in 2016, and the gain from the exchange of wireless spectrum licences in the second quarter of 2016, partly offset by the non-recurrence of gains on the sale of certain real estate assets in 2015.

Intersegment revenue represents network services that are eliminated upon consolidation along with the associated wireline expenses.

Operating expenses — Wireless segment

Years ended December 31 ($ in millions)	2016	2015	Change
Goods and services purchased:			
Equipment sales expenses	**1,684**	1,623	3.8%
Network operating expenses	**773**	759	1.8%
Marketing expenses	**420**	436	(3.7)%
Other [1]	**667**	653	2.1%
Employee benefits expense [1] [2]	**723**	717	0.8%
Wireless operating expenses	**4,267**	4,188	1.9%

(1) Includes restructuring and other costs. See *Section 11.1 Non-GAAP and other financial measures*.
(2) Includes transformative compensation expense of $70 million recorded in other costs in the fourth quarter of 2016.

Wireless expenses increased by $79 million in 2016.

Equipment sales expenses increased by $61 million in 2016, reflecting an increase in higher-value smartphones in the sales mix, including premium devices on Premium Plus plans, increasing handset costs (including the effect of higher supplier costs due to depreciation of the Canadian dollar relative to the U.S. dollar over the last two years) and increased postpaid gross additions, partly offset by lower retention volumes, and by lower cost of sales from the closure of Black's Photography stores in August 2015.

- **Retention costs as a percentage of network revenue** were 14.7% in 2016, as compared to 13.9% in 2015. The increase was driven by higher per-unit subsidy costs including the impacts of the new Premium Plus plans launched in June 2016, reflecting the factors noted in Equipment sales expenses above, partly offset by lower retention volumes and lower associated commissions.

- **COA per gross subscriber addition** was $455 in 2016, reflecting an increase of $37 from 2015. The increase reflects the factors noted in Equipment sales expenses above, partly offset by lower commissions.

Network operating expenses increased by $14 million in 2016, mainly due to increased roaming volumes, partly offset by lower maintenance costs.

Marketing expenses declined by $16 million in 2016, primarily due to lower advertising and promotions expenses, as well as lower commission expenses driven by lower gross additions and retention volumes.

Other goods and services purchased increased by $14 million in 2016, primarily due to an increase in external labour, higher non-labour restructuring and other costs, and higher bad debt provisions resulting from a larger subscriber base, partly offset by lower non-labour restructuring and other costs from provisions for the closure of Black's Photography retail stores during the third quarter of 2015.

Employee benefits expense increased mainly due to the transformative compensation expense recorded in the fourth quarter of 2016 (see *Collective bargaining and transformative change compensation* in Section *1.3*). Excluding the transformative compensation expense, employee compensation decreased by $64 million, mainly due to lower employee-related restructuring costs and realizing benefits from ongoing operational efficiency and effectiveness initiatives.

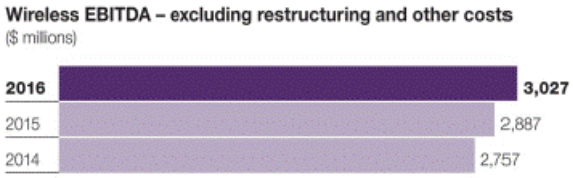
EBITDA — Wireless segment

Years ended December 31 ($ millions, except margins)	2016	2015	Change
EBITDA	**2,906**	2,806	3.6%
Restructuring and other costs included in EBITDA[1]	**121**	81	49.4%
EBITDA — excluding restructuring and other costs	**3,027**	2,887	4.8%

Deduct gain on the exchange of wireless spectrum licences	**(15)**	—	n/m
Deduct net gains and equity income from real estate joint venture developments	**(12)**	—	n/m
Adjusted EBITDA[2]	**3,000**	2,887	3.9%
EBITDA margin (%)	**40.5**	40.1	0.4pts.
Adjusted EBITDA margin[3] (%)	**42.0**	41.3	0.7pts.

(1) Includes transformative compensation expense of $70 million recorded in other costs in the fourth quarter of 2016.
(2) See description under *EBITDA* in *Section 11.1*.
(3) The calculation of the Adjusted EBITDA margin excludes the net gains and equity income on real estate joint venture developments from both EBITDA and Operating revenues, and excludes restructuring and other costs from EBITDA.

Wireless EBITDA increased by $100 million in 2016, including the transformative compensation expense recorded in the fourth quarter of 2016. Wireless adjusted EBITDA increased by $113 million in 2016, reflecting network revenue growth driven by higher ARPU and a larger customer base, as well as executing on ongoing operational efficiency and effectiveness initiatives, partly offset by higher acquisition and retention spending. Had 2015 adjusted EBITDA also excluded the non-recurring gain on certain real estate assets in the fourth quarter of 2015, wireless adjusted EBITDA would have reflected an increase of approximately $120 million or 4.2% in 2016.



5.5 Wireline segment

High-speed Internet subscribers	TELUS TV subscribers	Residential NALs	Total wireline subscribers
2016: 1,655,000 +5.7%	**2016**: 1,059,000 +5.4%	**2016**: 1,374,000 (6.3)%	**2016:** 4,088,000 +1.2%
2015: 1,566,000	2015: 1,005,000	2015: 1,467,000	2015: 4,038,000

Wireline trends

The trend of increasing wireline data service revenue reflects growth in business process outsourcing services, high-speed Internet and enhanced data services, TELUS TV revenues and TELUS Health revenues, and is partly offset by declining data equipment revenues. The increases in Internet and TV service revenues are being generated by higher revenue per customer and subscriber growth. The trend of declining wireline voice revenues is due to technological substitution, greater use of inclusive long distance and lower wholesale volumes competition from voice over IP (VoIP) service providers (including cable-TV competitors), resellers and facilities-based competitors, as well as technological substitution to wireless and IP-based services and applications, continuing increased competition in the small and medium-sized business market, and the impact of the economic slowdown.

High-speed Internet subscriber base growth slowed in 2016, primarily from the impact of the economic slowdown and competitive intensity; however, we expect continued subscriber growth as the economy recovers 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 economic slowdown, 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 economic slowdown and the ongoing trend of substitution to wireless and Internet-based services.

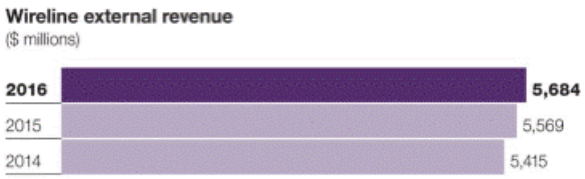
Wireline operating indicators

At December 31 (000s)	2016	2015	Change
Subscriber connections:			
High-speed Internet subscribers	**1,655**	1,566	5.7%
TELUS TV subscribers	**1,059**	1,005	5.4%
Residential network access lines (NALs)	**1,374**	1,467	(6.3)%
Total wireline subscriber connections [1]	**4,088**	4,038	1.2%

Years ended December 31 (000s)	2016	2015	Change
Subscriber connection net additions (losses):			
High-speed Internet	**68**	91	(25.3)%
TELUS TV	**54**	89	(39.3)%
Residential NALs	**(93)**	(89)	(4.5)%
Total wireline subscriber connection net additions [1]	**29**	91	(68.1)%

(1) Subsequent to a review of our subscriber base during the first quarter of 2016, our 2016 opening high-speed Internet subscriber base was

increased by 21,000.



Operating revenues — Wireline segment

Years ended December 31 ($ in millions)	2016	2015	Change
Data services and equipment	**4,059**	3,772	7.6%
Voice services	**1,363**	1,496	(8.9)%
Other services and equipment	**225**	238	(5.5)%
Revenues arising from contracts with customers	**5,647**	5,506	2.6%
Other operating income	**37**	63	(41.3)%
External operating revenues	**5,684**	5,569	2.1%
Intersegment revenue	**194**	174	11.5%
Total operating revenues	**5,878**	5,743	2.4%

Total wireline operating revenues increased by $135 million in 2016.

- **Data services and equipment** revenues increased by $287 million in 2016. The increase was primarily due to: (i) increased Internet and enhanced data service revenues resulting from a 5.7% increase in our high-speed Internet subscribers over 12 months, higher revenue per customer from upgrades to faster Internet speeds and larger usage Internet rate plans, subscribers coming off of promotional offers, the phased-in introduction of usage-based billing in 2015 and certain rate increases; (ii) growth in business process outsourcing revenues; and (iii) increased TELUS TV revenues resulting from a 5.4% subscriber growth over 12 months and higher revenue per customer, including certain rate increases. This growth was partly offset by the ongoing decline in legacy data services, as well as a decline in data equipment revenues in the business market related to the economic slowdown, particularly in Alberta.

- **Voice services** revenues decreased by $133 million in 2016. The decrease reflects the ongoing decline in legacy revenues from technological substitution, the economic slowdown, increased competition, greater use of inclusive long distance plans and lower long distance minutes of use, including lower wholesale volumes, partially offset by certain rate increases. We experienced a 6.3% decline in residential NALs in the year.

- **Wireline subscriber connection net additions** were 29,000 in 2016, or a decrease of 62,000 from 2015.

  Net additions of high-speed Internet subscribers declined by 23,000 in 2016. The decrease was due to the effects of heightened competitive intensity and the impact of the economic slowdown in Alberta, resulting in increased churn, partly offset by the continued expansion of our high-speed broadband footprint, including fibre to the premises and the pull-through impact from the continued adoption of Optik TV. Net additions of TELUS TV subscribers were down 35,000 in 2016. The decrease reflects lower gross additions, a higher customer churn rate and a decline in satellite-TV subscribers due to a declining overall market for paid TV services resulting from the economic slowdown in Alberta, a high rate of market penetration and the effects of heightened competitive intensity, including OTT services. 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, and bundling these services together. This contributed to combined Internet and TV subscriber growth of 122,000 or 4.7% in 2016.

Residential NAL losses were 93,000 in 2016, as compared to NAL losses of 89,000 in 2015. The residential NAL losses continue to reflect the economic slowdown, the ongoing trend of substitution to wireless and Internet-based services, and increased competition, partially mitigated by the success of our bundled service offerings and our customers first initiatives.

- **Other services and equipment** revenues decreased by $13 million in 2016, mainly due to declines in voice equipment sales.

Other operating income decreased by $26 million in 2016, mainly due to non-recurrence of gains on the sale of certain real estate assets in the fourth quarter of 2015, as well as a decrease in amounts recognized from the regulatory price cap deferral account for provisioning broadband Internet services to eligible rural and remote communities. Partly offsetting these were net gains and equity income on real estate joint venture developments in 2016.

Intersegment revenue represents services provided to the wireless segment. Such revenue is eliminated upon consolidation together with the associated expenses in wireless.

Operating expenses — Wireline segment

Years ended December 31 ($ millions)	2016	2015	Change
Goods and services purchased [1]	**2,339**	2,296	1.9%

Employee benefits expense [1] [2]	**2,216**	1,991	11.3%
Wireline operating expenses	**4,555**	4,287	6.3%

(1) Includes restructuring and other costs. See *Section 11.1 Non-GAAP and other financial measures.*
(2) Includes transformative compensation expense of $235 million recorded in other costs in the fourth quarter of 2016.

Total wireline operating expenses increased by $268 million in 2016, primarily due to the following factors:

Goods and services purchased increased by $43 million in 2016, due to increased network operating and administrative costs to support our growing subscriber base, and higher advertising and promotional expenses related to bundled offerings and in response to heightened competitive intensity, as well as higher TELUS TV costs of sales due to a larger subscriber base, partly offset by lower transit and termination costs and lower equipment costs related to declining equipment revenue.

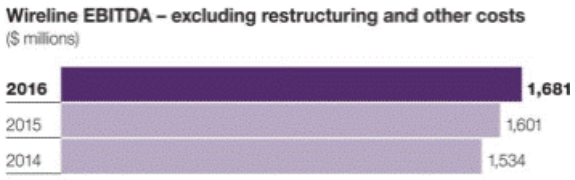
Employee benefits expense increased by $225 million in 2016, mainly due to the transformative compensation expense recorded in the fourth quarter of 2016 (see *Collective bargaining and transformative change compensation* in *Section 1.3*). Excluding the transformative compensation expense, employee compensation decreased by $10 million, mainly due to lower employee-related restructuring costs and realizing benefits from ongoing operational efficiency and effectiveness initiatives, partly offset by an increase in TELUS International employees and compensation supporting growing business process outsourcing revenue.

EBITDA — Wireline segment

Years ended December 31 ($ millions, except margins)	2016	2015	Change
EBITDA	**1,323**	1,456	(9.1)%
Restructuring and other costs included in EBITDA[1]	**358**	145	n/m%
EBITDA — excluding restructuring and other costs	**1,681**	1,601	5.0%
Deduct net gains and equity income from real estate joint venture developments	**(14)**	—	n/m
Adjusted EBITDA[2]	**1,667**	1,601	4.1%
EBITDA margin (%)	**22.5**	25.4	(2.9)pts.
Adjusted EBITDA margin[3] (%)	**28.4**	27.9	0.5pts.

(1) Includes transformative compensation expense of $235 million recorded in other costs in the fourth quarter of 2016.
(2) See description under *EBITDA* in *Section 11.1*.
(3) The calculation of the Adjusted EBITDA margin excludes the net gains and equity income on real estate joint venture developments from both EBITDA and Operating revenues, and excludes restructuring and other costs from EBITDA.

Wireline EBITDA decreased by $133 million in 2016, mainly due to the transformative compensation expense recorded in the fourth quarter of 2016. Wireline adjusted EBITDA increased by 4.1% in 2016, as compared to an operating revenue increase of 2.4% in 2016, excluding the net revenue impacts from the real estate joint venture developments. This reflects our execution on cost efficiency programs, as well as improving margins in data services, including Internet, business process outsourcing services, TELUS TV and TELUS Health services. Had 2015 adjusted EBITDA also excluded the non-recurring gain on certain real estate assets in the fourth quarter of 2015, wireline adjusted EBITDA would have reflected an increase of approximately $79 million or 5.0% in 2016.



6. Changes in financial position

Financial position at: ($ millions)	December 31 2016	2015	Change ($ millions)	(%)	Change includes:
Current assets					
Cash and temporary investments, net	**432**	223	209	94%	See *Section 7 Liquidity and capital resources*

Accounts receivable	**1,471**	1,428	43	3%	An increase in wireless receivables related to higher postpaid average revenue per subscriber unit per month (ARPU) and subscriber growth
Income and other taxes receivable	**9**	1	8	n/m	—
Inventories	**318**	360	(42)	(12)%	A decrease in the quantity of higher-value smartphones
Prepaid expenses	**233**	213	20	9%	An increase in prepaid maintenance contracts
Real estate joint venture advances	**—**	66	(66)	(100)%	Repayment of the construction credit facility concurrent with the commencement of the closing of residential condominium unit sales
Current derivative assets	**11**	40	(29)	(73)%	A decrease in U.S. currency hedging items.
Current liabilities					
Short-term borrowings	**100**	100	—	—	See *Section 7.7 Sale of trade receivables*
Accounts payable and accrued liabilities	**2,330**	1,990	340	17%	An increase in payables associated with higher capital expenditures, coupled with payables related to employee benefits. See *Note 23 of the Consolidated financial statements*
Income and other taxes payable	**37**	108	(71)	(66)%	Instalments made during the year exceeded current income tax expense
Dividends payable	**284**	263	21	8%	Effects of an increase in the dividend rate, net fewer shares outstanding
Advance billings and customer deposits	**737**	760	(23)	(3)%	A decrease in revenues billed in advance, coupled with a decrease in the regulatory price cap deferral account resulting from recognition of amounts for provisioning broadband Internet services to eligible rural and remote communities. See *Note 24 of the Consolidated financial statements*
Provisions	**124**	197	(73)	(37)%	Payment of certain current provisions (see *Note 25 of the Consolidated financial statements)*, coupled with employee-related restructuring disbursements in excess of associated expenses
Current maturities of long-term debt	**1,327**	856	471	55%	An increase in outstanding commercial paper of $357 million, as well as amounts reclassified from long-term debt relating to the upcoming maturity of $700 million of our 4.95% Notes, Series CD in March 2017, offset by redemption of $600 million of our 3.65% Notes, Series CI in May 2016
Current derivative liabilities	**12**	2	10	n/m	An increase in U.S. currency hedging items.
Working capital (Current assets subtracting Current liabilities)	**(2,477)**	(1,945)	(532)	(27)%	Includes a $471 million increase in current maturities of long-term debt. TELUS normally has a negative working capital position. See *Capital structure management policies* in *Section 4.3* and the *Liquidity risk* discussion in *Section 7.9.*

Financial position at:	**December 31**		**Change**		
($ millions)	**2016**	**2015**	**($ millions)**	**(%)**	**Change includes:**
Non-current assets					
Property, plant and equipment, net	**10,464**	9,736	728	7%	See *Capital expenditures* in *Section 7.3 Cash used by investing activities* and *Depreciation* in *Section 5.3*
Intangible assets, net	**10,364**	9,985	379	4%	See *Capital expenditures* in *Section 7.3 Cash used by investing activities* and *Amortization of intangible assets* in *Section 5.3*
Goodwill, net	**3,787**	3,761	26	1%	An increase from immaterial acquisitions
Other long-term assets	**640**	593	47	8%	Advances to real estate partnership and an increase in long-term deferred operating costs

Non-current liabilities					
Provisions	**395**	433	(38)	(9)%	A decrease in asset retirement obligations arising from an increase in discount rates, coupled with restructuring costs classified to current. See *Note 25 of the Consolidated financial statements*
Long-term debt	**11,604**	11,182	422	4%	See *Section 7.4 Cash provided (used) by financing activities*
Other long-term liabilities	**736**	688	48	7%	Increase in pension and post-retirement liability. See *Note 27 of the Consolidated financial statements*
Deferred income taxes	**2,107**	2,155	(48)	(2)%	Reduction in temporary difference between the accounting and tax basis of assets and liabilities, as well as the revaluation of the liability at lower future income tax rates.
Owners' equity					
Common equity	**7,917**	7,672	245	3%	Net income of $1,223 million, Other comprehensive loss of $17 million, impact on contributed surplus arising from subsidiary issuance of shares to non-controlling interest of $239 million, net of dividend declarations of $1,091 million, and share purchase activity under our normal course issuer bid program (see *Section 7.4 Cash provided (used) by financing activities*)
Non-controlling interest	**19**	—	19	n/m	Impact arising from the 35% non-controlling interest in TELUS International.

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

Years ended December 31 ($ millions)	2016	2015	Change
Cash provided by operating activities	**3,219**	3,556	(9.5)%
Cash used by investing activities	**(2,923)**	(4,477)	34.7%
Cash provided (used) by financing activities	**(87)**	1,084	n/m
Increase (decrease) in Cash and temporary investments, net	**209**	163	28.2%
Cash and temporary investments, net, beginning of period	**223**	60	n/m
Cash and temporary investments, net, end of period	**432**	223	93.7%

7.2 Cash provided by operating activities

Analysis of changes in cash provided by operating activities

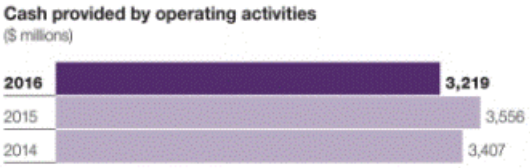
Years ended December 31 ($ millions)	2016	2015	Change
EBITDA (see *Section 5.4* and *Section 5.5*)	**4,229**	4,262	(33)
Restructuring and other costs, net of disbursements	**24**	97	(73)
Employee defined benefit plans expense, net of employer contributions	**22**	24	(2)
Share-based compensation expense, net of payments	**(2)**	(38)	36
Interest paid, net of interest received	**(506)**	(434)	(72)
Income taxes paid, net of refunds received	**(600)**	(256)	(344)
Other operating working capital changes	**52**	(99)	151
Cash provided by operating activities	**3,219**	3,556	(337)

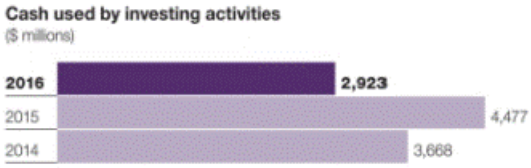
- Share-based compensation expense, net of payments decreased mainly due to cash outflows associated with the 2012 restricted stock units (RSUs) being made in the first quarter of 2015 that would normally have been paid in the fourth quarter of 2014. This resulted from a delay in the 2012 annual allocation of RSUs.

- Income taxes paid, net of refunds received, increased in 2016, reflecting higher required instalment payments and higher refunds received in the comparative period in 2015, as well as a larger final income tax payment in the first quarter of 2016 in respect of the 2015 income tax

year than was required in the first quarter of 2015 in respect of the 2014 income tax year, mainly due to the use of Public Mobile losses in 2014.

- Other operating working capital changes in 2016 include an increase in Accounts payable and accrued liabilities, net of an increase in Accounts receivable. (See *Section 6 Changes in financial position* and *Note 31(a)* in the Consolidated financial statements.)





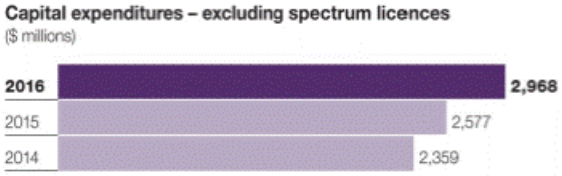
7.3 Cash used by investing activities

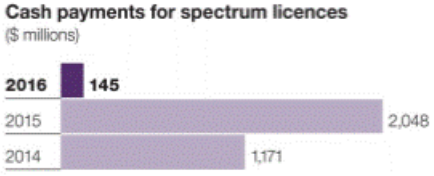
Cash used by investing activities

	Years ended December 31		
($ millions)	**2016**	**2015**	**Change**
Cash payments for capital assets, excluding spectrum licences	**(2,752)**	(2,522)	(230)
Cash payments for spectrum licences	**(145)**	(2,048)	1,903
Cash payments for acquisitions	**(90)**	(10)	(80)
Real estate joint venture receipts, net of advances and contributions	**70**	48	22
Proceeds on dispositions	**3**	52	(49)
Other	**(9)**	3	(12)
Cash used by investing activities	**(2,923)**	(4,477)	1,554

- The increase in Cash payments for capital assets, excluding spectrum licences, was composed of:
  - A $391 million increase in capital expenditures in 2016 (see *Capital expenditure measures* table and discussion below).
  - Lower capital expenditure payments with respect to payment timing differences, as associated Accounts payable and accrued liabilities increased by $171 million for 2016, net of changes in asset retirement obligations of $10 million.
- Payments for spectrum licences in 2016 were monetary consideration as part of an approved spectrum licence exchange with Xplornet (see *Building national capabilities* in *Section 2.2*). Payments in 2015 were for the AWS-3 and 2500 MHz spectrum licences acquired in Innovation, Science and Economic Development Canada's (ISED's) wireless spectrum auctions.
- Cash payments for acquisitions were in respect of several individually immaterial acquisitions complementary to our existing lines of business.

- Receipts from real estate joint ventures, net of advances and contributions, resulted mainly from repayment of construction financing from the TELUS Garden real estate joint venture.
- Proceeds on dispositions in 2015 were primarily related to the sale of real estate properties and small portfolio investments.





Capital expenditure measures

Years ended December 31 ($ millions, except capital intensity)	**2016**	**2015**	**Change**
Capital expenditures (excluding spectrum licences)[1]			
Wireless segment	**982**	893	10.0%
Wireline segment	**1,986**	1,684	17.9%
Consolidated	**2,968**	2,577	15.2%
Wireless segment capital intensity (%)	**14**	13	1pt.
Wireline segment capital intensity (%)	**34**	29	5pts.
Consolidated capital intensity[2] (%)	**23**	21	2pts.

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

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

Wireless segment capital expenditures increased by $89 million in 2016, primarily due to continuing investments in our fibre-optic network to support our small-cell technology strategy to improve coverage and prepare for a more efficient and timely evolution to 5G, as well as higher spending on the deployment of the 700 MHz and 2500 MHz spectrum bands, and in cost efficiency initiatives. We also 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.

Wireline segment capital expenditures increased by $302 million in 2016 due to continuing investments in our broadband infrastructure, including connecting more homes and businesses directly to our fibre-optic network. This investment supports 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. We also continued to make investments in cost efficiency initiatives, as well as in system and network resiliency and reliability.

7.4 Cash provided (used) by financing activities

Cash provided (used) by financing activities

	Years ended December 31		
($ millions)	**2016**	**2015**	**Change**
Dividends paid to holders of Common Shares	**(1,070)**	(992)	(78)
Purchase of Common Shares for cancellation	**(179)**	(628)	449
Long-term debt issued net of redemptions and repayment	**883**	2,719	(1,836)
Issue of shares by subsidiary to non-controlling interest	**294**	—	294
Other	**(15)**	(15)	—
	(87)	1,084	(1,171)

Dividends paid to the holders of Common Shares

The increase in Dividends paid to the holders of Common Shares reflects higher dividend rates under our dividend growth program, partially offset by a lower number of outstanding shares resulting from shares purchased and cancelled under our normal course issuer bid (NCIB) program.

Purchase of Common Shares for cancellation

Our 2016 NCIB concluded on September 14, 2016 and our 2017 NCIB commenced on September 30, 2016. See *Section 4.3* for details of our planned multi-year share purchase program through 2019. In 2015, we purchased approximately 16 million shares for $628 million under the 2015 and 2016 NCIBs.

Normal course issuer bid purchases

Period	Common Shares purchased and cancelled (millions)	Average purchase price per share ($)	Purchase costs ($ millions)	Increase (decrease) in Accounts payable ($ millions)	Cash outflow ($ millions)
2016 Q1	1	37.77	50	(10)	60
2016 Q2	2	38.43	61	—	61
2016 Q3	—	42.92	19	—	19
2016 Q4	1	39.64	35	—	35
Total excluding employee benefit plan trust transactions	4	39.34	165	(10)	175
Employee benefit plan trust transactions — 2016 Q4			4	—	4
2016 year			169	(10)	179

Long-term debt issues and repayments

Net long-term debt issues and repayments in 2016 were composed primarily of:

- The September 2016 public issue of U.S.$600 million of senior unsecured Notes at 2.80%, due February 16, 2027. The proceeds were used to repay U.S.$453 million of commercial paper, with the balance to be used for general corporate purposes. We have entered into a foreign exchange derivative (a cross currency interest rate exchange agreement) which effectively converted the principal payments and interest obligations to Canadian dollar obligations with an effective fixed interest rate of 2.95% and an effective issued and outstanding amount of $792 million (reflecting a fixed exchange rate of $1.3205). For additional information on these notes, please refer to *Note 26(b)* of the Consolidated financial statements.

- A $357 million net increase in commercial paper, including foreign exchange effects, to a balance of $613 million at December 31, 2016 (U.S.$456 million) from $256 million (U.S.$185 million) at December 31, 2015. 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*).

- Net draws on the TELUS International credit facility of $332 million (U.S .$253 million) as at December 31, 2016.

- Net of the $600 million repayment of Series CI Notes in May 2016.

In comparison, net long-term debt issues and repayments in 2015 were composed primarily of:

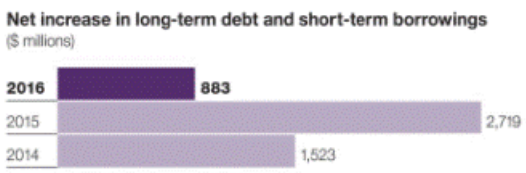
- A March 24, 2015, public issue of $1.75 billion of senior unsecured notes in three series composed of a $250 million offering at 1.50% due March 27, 2018, a $1.0 billion offering at 2.35% due March 28, 2022, and a $500 million offering at 4.40% due January 29, 2046. The net proceeds were used to fund a portion of the $1.5 billion purchase price of the wireless spectrum licences acquired in ISED's AWS-3 spectrum auction during the first quarter of 2015, and to repay approximately $110 million of indebtedness drawn from the 2014 credit facility (which was subsequently renewed and extended) and approximately $135 million of outstanding commercial paper. The remainder was used for general corporate purposes.

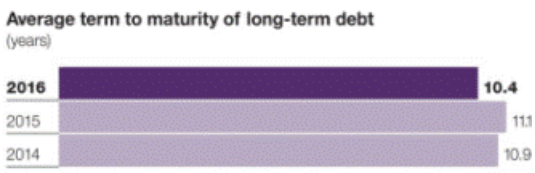
- A $400 million draw on our five-year revolving credit facility in the second quarter of 2015, which was reduced to $NIL during the third quarter of 2015. At December 31, 2015, no amounts were drawn against our five-year credit facility ($256 million was utilized to backstop outstanding commercial paper).

- A November 23, 2015, repayment of our $125 million TELUS Communications Inc. Series 2 Debentures, upon maturity.

- A December 8, 2015, public issue of $1.0 billion of senior unsecured notes composed of a $600 million offering at 3.75% due March 10, 2026 and $400 million of 4.85% Notes through the re-opening of Series CP notes, maturing April 5, 2044. The net proceeds were used to repay approximately $956 million of outstanding commercial paper and to fund the repayment, on maturity, of a portion of the $600 million principal amount outstanding on TELUS' Series CI Notes due May 2016. The balance was used for general corporate purposes.

- A $126 million net increase in commercial paper to $256 million (U.S.$185 million) at December 31, 2015.





The average term to maturity of our long-term debt (excluding commercial paper and the revolving component of the TELUS International credit facility) decreased to approximately 10.4 years at December 31, 2016, compared to approximately 11.1 years at the end of 2015. Additionally, our weighted average cost of long-term debt was 4.22% at December 31, 2016, compared to 4.32% at the end of 2015.

Issue of shares by subsidiary to non-controlling interest

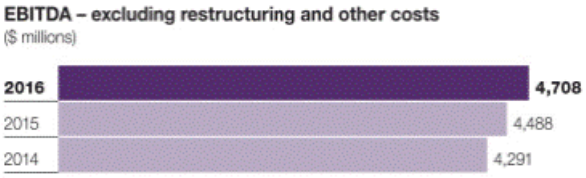
In June 2016, a subsidiary issued shares to Baring Asia which acquired a 35% non-controlling interest in TELUS International. (See *Section 1.3 Highlights of 2016*.) Cash proceeds net of issue costs currently paid were $294 million as at December 31, 2016.

7.5 Liquidity and capital resource measures

Net debt was $12.7 billion at December 31, 2016, an increase of $0.7 billion when compared to one year earlier, resulting mainly from the draw on the TELUS International credit facility, the increase in commercial paper and the issue of U.S.$600 million Notes in September 2016, net of the repayment of Series CI Notes, as described in *Section 7.4*.

Fixed-rate debt as a proportion of total indebtedness was 92% as at December 31, 2016, down from 97% one year earlier, mainly due to an increase in issued commercial paper and the amounts drawn on the TELUS International credit facility.

Net debt to EBITDA — excluding restructuring and other costs ratio was 2.69 times, as measured for December 31, 2016, up slightly from 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 December 31, 2016, 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, which were auctioned in unprecedented amounts and in atypical concentrations during those years, 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 will endeavour to return this ratio to within the objective range in the medium term, as we believe that this range is supportive of 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*).



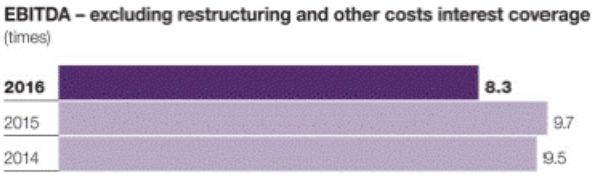
Liquidity and capital resource measures

As at, or years ended, December 31	2016	2015	Change
Components of debt and coverage ratios[1] ($ millions)			
Net debt	**12,652**	11,953	699
EBITDA — excluding restructuring and other costs	**4,708**	4,488	220
Net interest cost	**566**	465	101
Debt ratios			
Fixed-rate debt as a proportion of total indebtedness (%)	**92**	97	(5)pts.
Average term to maturity of long-term debt (excluding commercial paper) (years)	**10.4**	11.1	(0.7)
Weighted average interest rate on long-term debt (excluding commercial paper) (%)	**4.22**	4.32	(0.10)pts.
Net debt to EBITDA — excluding restructuring and other costs[1] (times)	**2.69**	2.66	0.03
Coverage ratios[1] (times)			
Earnings coverage	**4.0**	4.8	(0.8)
EBITDA — excluding restructuring and other costs interest coverage	**8.3**	9.7	(1.4)
Other measures[1] (%)			
Dividend payout ratio of adjusted net earnings	**77**	73	4pts.
Dividend payout ratio	**89**	73	16pts.

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

Earnings coverage ratio for 2016 was 4.0 times, down from 4.8 times one year earlier. A decrease in income before borrowing costs and income taxes reduced the ratio by 0.5, while an increase in borrowing costs reduced the ratio by 0.3.

EBITDA — excluding restructuring and other costs interest coverage ratio for 2016 was 8.3 times, down from 9.7 times one year earlier. An increase in net interest costs reduced the ratio by 1.8, while growth in EBITDA — excluding restructuring and other costs increased the ratio by 0.4.



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 estimate that we are within our target guideline on a prospective dividend payout ratio basis. The historical measures for the year ended December 31, 2016 are presented for illustrative purposes in evaluating our target guideline and both exceeded the objective range.

7.6 Credit facilities

At December 31, 2016, we had available liquidity of more than $1.7 billion from unutilized credit facilities, including the TELUS revolving credit facility, approximately $96 million available liquidity from the TELUS International credit facility and $131 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 was renewed in the second quarter of 2016 and 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 December 31, 2016

($ 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	—	—	(613)	1,637

(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 2.69 to 1.00 as at December 31, 2016, and our consolidated coverage ratio was approximately 8.32 to 1.00 as at December 31, 2016. 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 December 31, 2016, including a U.S. dollar denominated commercial paper program for up to U.S.$1.0 billion within this maximum aggregate amount. 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 facilities

As at December 31, 2016, TELUS International (Cda) Inc. had a U.S.$330 million bank credit facility, secured by its assets, expiring on May 31, 2021, with a syndicate of financial institutions. The credit facility is comprised of a revolving U.S.$115 million component and a U.S.$215 million term loan component. The credit facility is non-recourse to TELUS Corporation. As at December 31, 2016, $340 million ($332 million net of unamortized issue costs) was outstanding, all of which was denominated in U.S. dollars (U.S.$253 million), with a weighted average interest rate of 2.49%.

Other letter of credit facilities

At December 31, 2016, we had $210 million of letters of credit outstanding (December 31, 2015 — $202 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 $131 million at December 31, 2016.

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 December 31, 2016. (See *Note 22* of the 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 February 9, 2017.

7.8 Credit ratings

There were no changes to our investment grade credit ratings during 2016, or as of February 9, 2017. We believe adherence to most of our stated financial policies (see *Section 4.3*), coupled with our efforts to maintain a constructive relationship with banks, investors and credit rating agencies, continues to provide reasonable access to capital markets. (See discussion of risks in *Section 10.7 Financing and debt requirements and returning cash to shareholders*.)

7.9 Financial instruments, commitments and contingent liabilities

Financial instruments

Our financial instruments and the nature of certain risks that they may be subject to are set out below and described in *Note 4* of the Consolidated financial statements. Our policies in respect of the recognition and measurement of financial instruments are described in *Note 1(c)* of the Consolidated financial statements.

		Risks				
				Market risks		
Financial instrument	Recognition and measurement accounting classification	Credit	Liquidity	Currency	Interest rate	Other price
Measured at amortized cost						
Accounts receivable	Loans and receivables	X		X		
Construction credit facilities advances to real estate joint venture	Loans and receivables				X	
Short-term obligations	Other financial liabilities		X	X	X	
Accounts payable	Other financial liabilities		X	X		
Provisions	Other financial liabilities		X	X		X
Long-term debt	Other financial liabilities		X	X	X	
Measured at fair value						
Cash and temporary investments	Fair value through Net income	X		X	X	
Long-term investments (not subject to significant influence) [1]	Available-for-sale			X		X
Foreign exchange derivatives [2]	Fair value through Net income; part of a cash flow hedging relationship	X	X	X		
Share-based compensation derivatives [2]	Fair value through Net income; part of a cash flow hedging relationship	X	X			X

(1) Long-term investments over which we do not have significant influence are measured at fair value if those fair values can be reliably measured.

(2) Use of derivative financial instruments is subject to a policy which requires that no derivative transaction is to be entered into for the purpose of establishing a speculative or leveraged position (the corollary being that all derivative transactions are to be entered into for risk management purposes only) and sets criteria for the creditworthiness of the transaction counterparties.

Credit risk

Credit risk arises from Cash and temporary investments, Accounts receivable and derivative financial instruments. We mitigate credit risk as follows:

- Credit risk associated with Cash and temporary investments is managed by ensuring that these financial assets are placed with governments, major financial institutions that have been accorded strong investment grade ratings by a primary rating agency, and/or other creditworthy counterparties. An ongoing review is performed to evaluate changes in the status of counterparties.

- Credit risk associated with Accounts receivable is inherently managed by the size and diversity of our large customer base, which includes substantially all consumer and business sectors in Canada. We follow a program of credit evaluations of customers and limit the amount of credit extended when deemed necessary. As at December 31, 2016, the weighted average life of past-due customer Accounts receivable was 61 days (2015 — 62 days).

  We maintain allowances for potential credit losses related to doubtful accounts. Current economic conditions, historical information, reasons for the accounts being past-due and line of business from which the customer Accounts receivable arose are all considered when determining whether to make allowances for past-due accounts. The same factors are considered when determining whether to write off amounts charged to the allowance for doubtful accounts against the customer Accounts receivable. The doubtful accounts expense is calculated on a specific-identification basis for customer Accounts receivable over a specific balance threshold and on a statistically derived allowance basis for the remainder. No customer Accounts receivable are written off directly to the doubtful accounts expense.

- Counterparties to our share-based compensation cash-settled equity forward agreements and foreign exchange derivatives are major financial institutions that have been accorded investment grade ratings by a primary rating

agency. The dollar amount of credit exposure under contracts with any one financial institution is limited and counterparties' credit ratings are monitored. We do not give or receive collateral on swap agreements and hedging items due to our credit rating and those of our counterparties. While we are exposed to potential credit losses due to the possible non-performance of our counterparties, we consider this risk remote. Our derivative liabilities do not have credit risk-related contingent features.

Liquidity risk

Liquidity risk is the risk that we may not have cash available to satisfy our financial obligations as they come due. 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.

Our debt maturities in future years are as disclosed in the long-term debt principal maturities chart in *Section 4.3*. As at December 31, 2016, we had liquidity of more than $1.7 billion available from unutilized credit facilities (see *Section 7.6 Credit facilities*), $400 million available under our trade receivables securitization program (see *Section 7.7 Sale of trade receivables*), and we could offer $2.2 billion of debt or equity securities pursuant to a shelf prospectus that is in effect until April 2018. 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.

The expected maturities of our undiscounted financial liabilities do not differ significantly from the contractual maturities, other than as shown in the table in *Note 4(c)* of the Consolidated financial statements.

Currency risk

Our functional currency is the Canadian dollar, but certain routine revenues and operating costs are denominated in U.S. dollars and some inventory purchases and capital asset acquisitions are sourced internationally. The U.S. dollar is the only foreign currency to which we have a significant exposure.

Our foreign exchange risk management includes the use of foreign-currency forward contracts and currency options to fix the exchange rates on short-term U.S. dollar denominated transactions, commitments and commercial paper.

We are also exposed to currency risks in that the fair value or future cash flows of our U.S. Dollar Notes and our TELUS International credit facility U.S. dollar borrowings could fluctuate because of changes in foreign exchange rates. Currency hedging relationships have been established for the related semi-annual interest payments and principal payment at maturity in respect of the U.S. Dollar Notes.

Interest rate risk

Changes in market interest rates will cause fluctuations in the fair values or future cash flows of temporary investments, construction credit facility advances made to the real estate joint ventures, short-term obligations, long-term debt and interest rate swap derivatives.

When we have temporary investments, they have short maturities and fixed interest rates and, as a result, their fair values will fluctuate with changes in market interest rates; absent monetization prior to maturity, the related future cash flows will not change due to changes in market interest rates.

If the balance of short-term investments includes dividend-paying equity instruments, we could be exposed to interest rate risk.

Due to the short-term nature of the applicable rates of interest charged, the fair value of the construction credit facilities advances made to the real estate joint venture is not materially affected by changes in market interest rates; associated cash flows representing interest payments will be affected until such advances are repaid.

As short-term obligations arising from bilateral bank facilities, which typically have variable interest rates, are rarely outstanding for periods that exceed one calendar week, interest rate risk associated with this item is not material.

Short-term borrowings arising from the sales of trade receivables to an arm's-length securitization trust are fixed-rate debt. Due to the short maturities of these borrowings, interest rate risk associated with this item is not material.

All of our currently outstanding long-term debt, other than commercial paper and amounts drawn on our credit facilities, is fixed-rate debt (see *Section 7.5*). The fair value of fixed-rate debt fluctuates with changes in market interest rates; absent early redemption, the related future cash flows will not change. Due to the short maturities of commercial paper, its fair value is not materially affected by changes in market interest rates, but the associated cash flows representing interest payments may be affected if the commercial paper is rolled over.

Amounts drawn on our short-term and long-term credit facilities will be affected by changes in market interest rates in a manner similar to commercial paper.

Other price risk

- Long-term investments: We are exposed to equity price risk arising from investments classified as available-for-sale. Such investments are held for strategic rather than trading purposes.
- Share-based compensation derivatives: We are exposed to other price risk arising from cash-settled share-based compensation

(appreciating Common Share prices increase both the expense and the potential cash outflow). Certain cash-settled equity swap agreements have been entered into that fix the cost associated with our restricted stock units (see *Note 13(b)* of the Consolidated financial statements).

Market risks

Net income and Other comprehensive income for the years ended December 31, 2016 and 2015 could have varied if the Canadian dollar: U.S. dollar exchange rate and our Common Share price varied by reasonably possible amounts from their actual statement of financial position date amounts.

The sensitivity analysis of our exposure to market risks is shown in *Note 4(g)* of the Consolidated financial statements.

Fair values — General

The carrying values of Cash and temporary investments, Accounts receivable, short-term obligations, Short-term borrowings, accounts payable and certain provisions (including restructuring accounts payable) approximate their fair values due to the immediate or short-term maturity of these financial instruments. The fair values are determined directly by reference to quoted market prices in active markets.

The carrying values of our investments accounted for using the cost method do not exceed their fair values. The fair values of our investments accounted for as available-for-sale are based on quoted market prices in active markets or other clear and objective evidence of fair value.

The fair value of our Long-term debt is based on quoted market prices in active markets.

The fair values of the derivative financial instruments we use to manage our exposure to currency risks are estimated based upon quoted market prices in active markets for the same or similar financial instruments or on the current rates offered to us for financial instruments of the same maturity, as well as discounted future cash flows determined using current rates for similar financial instruments subject to similar risks and maturities (such fair value estimates being largely based on the Canadian dollar: U.S. dollar forward exchange rate as at the statement of financial position dates).

The fair values of the derivative financial instruments we use to manage our exposure to increases in compensation costs arising from certain forms of share-based compensation are based upon fair value estimates of the related cash-settled equity forward agreements provided by the counterparty to the transactions (such fair value estimates being largely based on our Common Share price as at the statement of financial position dates).

The financial instruments that we measure at fair value on a recurring basis in periods subsequent to initial recognition and the level within the fair value hierarchy at which they are measured are as set out in *Note 4(h)* of the Consolidated financial statements.

Fair values — Derivative and non-derivative

The derivative financial instruments that we measure at fair value on a recurring basis subsequent to initial recognition, and our Long-term debt, which is measured at amortized cost, and the fair value thereof, are set out in tables in *Note 4(h)* of the Consolidated financial statements.

Recognition of derivative gains and losses

Gains and losses, excluding income tax effects, on derivative instruments that are classified as cash flow hedging items, as well as gains and losses on derivative instruments that are classified as held for trading items and that are not designated as being in a hedging relationship, and their respective locations within the Consolidated statements of income and other comprehensive income, are detailed in *Note 4(i)* of the Consolidated financial statements.

Commitments and contingent liabilities

Contractual obligations as at December 31, 2016

($ millions)	2017	2018	2019	2020	2021	Thereafter	Total
Short-term borrowings							
Interest obligations	1	2	—	—	—	—	3
Principal obligations [1]	—	100	—	—	—	—	100
	1	102	—	—	—	—	103
Long-term debt							
Interest obligations	505	486	484	433	353	3,529	5,790
Principal maturities [2]	1,327	264	1,014	1,014	1,358	8,055	13,032
	1,832	750	1,498	1,447	1,711	11,584	18,822
Construction credit facilities commitment [3]	93	—	—	—	—	—	93
Minimum operating lease payments [3, 4]	217	198	183	160	138	819	1,715
Occupancy costs [3]	90	90	86	81	78	444	869

Purchase obligations [5]							
Operating expenditures	522	143	113	90	69	265	1,202
Property, plant and equipment, and Intangible assets	456	27	24	11	—	—	518
	978	170	137	101	69	265	1,720
Non-interest bearing financial liabilities	1,949	227	16	9	9	5	2,215
Other obligations	12	—	—	—	—	(9)	3
Total	5,172	1,537	1,920	1,798	2,005	13,108	25,540

(1) See *Section 7.7 Sale of trade receivables*.
(2) See Long-term debt maturity chart in *Section 4.3*.
(3) Construction credit facilities reflect loan amounts for a real estate joint venture, a related party. Minimum operating lease payments and occupancy costs include transactions with real estate joint ventures. See *Section 7.11 Transactions between related parties*.
(4) Total minimum operating lease payments include approximately 34% in respect of our five largest leases for office premises over various terms, with expiry dates that range between 2024 and 2036 with a weighted average term of approximately 14 years; and approximately 30% in respect of wireless site leases with a weighted average term of approximately 17 years. Total minimum operating lease payments with related parties are immaterial. See *Note 19* of the Consolidated financial statements.
(5) Where applicable, purchase obligations reflect foreign exchange rates at December 31, 2016. Purchase obligations include future operating and capital expenditures that have been contracted for at the current year-end and include the most likely estimates of prices and volumes, where necessary. As purchase obligations reflect market conditions at the time the obligation was incurred for the items being purchased, they may not be representative of future years. Obligations from personnel supply contracts and other such labour agreements have been excluded.

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. (See the related risk discussion in *Section 10.9 Litigation and legal matters*.)

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(a)* of the Consolidated financial statements. This is a significant judgment for us (see *Section 8.1 Critical accounting estimates*).

Indemnification obligations

In the normal course of operations, we provide indemnification in conjunction with certain transactions. The terms of these indemnification obligations range in duration. These indemnifications would require us to compensate the indemnified parties for costs incurred as a result of failure to comply with contractual obligations or litigation claims or

statutory sanctions or damages that may be suffered by an indemnified party. In some cases, there is no maximum limit on these indemnification obligations. The overall maximum amount of an indemnification obligation will depend on future events and conditions and therefore cannot be reasonably estimated. Where appropriate, an indemnification obligation is recorded as a liability. Other than obligations recorded as liabilities at the time of such transactions, historically we have not made significant payments under these indemnifications.

As at December 31, 2016, we had no liability recorded in respect of our indemnification obligations.

7.10 Outstanding share information

Outstanding shares (millions)	December 31, 2016	January 31, 2017
Common Shares	590	590
Common Share options — all exercisable (one for one)	1	1

7.11 Transactions between related parties

Investments in significant controlled entities

As at December 31, 2016, TELUS Corporation controlled 100% of the equity of TELUS Communications Inc., which, in turn, ultimately controlled 100% of TELUS Communications Company and TELE-MOBILE COMPANY. This is unchanged from December 31, 2015.

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 $54 million in 2016, as compared to $65 million in 2015. See *Note 30(a)* of the 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 2016, we had transactions with real estate joint ventures, which are related parties to us, as set out in *Note 21* of our Consolidated financial statements. As at December 31, 2016, 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, with the remaining units expected to close in 2017.

For the TELUS Sky™ real estate joint venture, commitments and contingent liabilities include construction-related contractual commitments through to 2018 (approximately $121 million at December 31, 2016) 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.

Examples of significant judgments, apart from those involving estimation, include the following:

- Assessments about whether line items are sufficiently material to warrant separate presentation in the primary financial statements and, if not, whether they are sufficiently material to warrant separate presentation in the notes to the financial statements. In the normal course, we make changes to our assessments regarding materiality for presentation so that they reflect current economic conditions. Due consideration is given to the view that it is reasonable to expect differing opinions of what is, and is not, material.

- In respect of revenue-generating transactions, we must make judgments that affect the timing of the recognition of revenue. See *Section 8.2 Accounting policy developments* below and *Note 2* of our Consolidated financial statements for significant changes to IFRS-IASB, which are not yet effective and have not yet been applied, but which will significantly affect the timing of the recognition of revenue and the classification of our revenues presented as either service or equipment revenues.

    - We must make judgments about when we have satisfied our performance obligations to our customers, either over a period of time or at a point in time. Service revenues are recognized based upon customers' access to, or usage of, our telecommunications infrastructure; we believe this method faithfully depicts the transfer of the services, and thus the revenues are recognized as the services are made available and/or rendered. We consider our performance obligations arising from the sale of equipment to have been satisfied when the equipment has been delivered to, and accepted by, the end-user customers.

    - Principally in the context of revenue-generating transactions involving wireless handsets, we must make judgments about whether third-party re-sellers that deliver equipment to our customers are acting in the transaction as principals or as our agents. Upon due consideration of the relevant indicators, we believe the decision to consider the re-sellers to be acting, solely for accounting purposes, as our agents is more representative of the economic substance of the transactions, as we are the primary obligor to the end-user customers. The effect of this judgment is that no equipment revenue is recognized upon the transfer of inventory to third-party resellers.

- The decision to depreciate and amortize any property, plant, equipment and intangible assets that are subject to amortization, on a straight-line basis, as we believe that this method reflects the consumption of resources related to the economic lifespan of those assets better than an accelerated method and is more representative of the economic substance of the underlying use of those assets.

- The preparation of financial statements in accordance with GAAP requires management to make judgments that affect the financial statement disclosure of information regularly reviewed by our chief operating decision-maker used to make resource allocation decisions and to assess performance (segment information, see *Note 5* of our Consolidated financial statements). A significant judgment we make is in respect of distinguishing between our wireless and wireline operations and cash flows, such distinction having been significantly affected by the convergence and integration of our wireless and wireline telecommunications infrastructure technology and operations.

Through December 31, 2015, our judgment was that our wireless and wireline telecommunications infrastructure technology and operations had not experienced sufficient convergence to objectively make their respective operations and cash flows practically indistinguishable. The continued build-out of our technology-agnostic fibre-optic infrastructure, in combination with converged edge network technology, has significantly affected this judgment, as has the commercialization of fixed-wireless solutions.

It has become increasingly impractical to objectively distinguish between our wireless and wireline operations and cash flows, and the assets from which those cash flows arise. Our judgment as to whether these operations can continue to be judged to be individual components of the business and discrete operating segments may change in the future.

The increasing impracticality of objectively distinguishing between our wireless and wireline cash flows, and the assets from which those cash flows arise, is evidence of their increasing interdependence; this may result in the unification of the wireless cash-generating unit and the wireline cash-generating unit as a single cash-generating unit for impairment testing purposes in the future.

- The view that our spectrum licences granted by Innovation, Science and Economic Development Canada (ISED) will likely be renewed by ISED, that we intend to renew them, that we believe we have the financial and operational ability to renew them and, thus, that they have an indefinite life, as discussed further in *Note 18(b)* of the Consolidated financial statements.

- In connection with the annual impairment testing of Intangible assets with indefinite lives and Goodwill, there are instances in which we must exercise judgment in allocating our net assets, including shared corporate and administrative assets, to our cash-generating units when determining their carrying amounts. These judgments are necessary because of the convergence our wireless and wireline telecommunications infrastructure technology and operations have experienced to date, and because of our continuous development. There are instances in which similar judgments must also be made in respect of future capital expenditures in support of both wireless and wireline operations, which are a component of the determination of recoverable amounts that are used in the annual impairment testing, as discussed further in *Note 18(c)* of the Consolidated financial statements.

- In respect of claims and lawsuits, as discussed further in *Note 29(a)* of the Consolidated financial statements, the determination of whether an item is a contingent liability or whether an outflow of resources is probable and thus needs to be accounted for as a provision.

Examples of the significant estimates and judgments that we make, and their relative significance and degree of difficulty, are as set out in the graphic in *Note 1* of the Consolidated financial statements.

Our critical accounting estimates and assumptions are described below.

General

- In determining our critical accounting estimates, we consider trends, commitments, events or uncertainties that we reasonably expect to materially affect the methodology or assumptions. Our statements in this MD&A regarding such consideration are made subject to the *Caution regarding forward-looking statements*.

- In the normal course, we make changes to assumptions underlying all critical accounting estimates so that they reflect current economic conditions, updated historical information used to develop the assumptions, and changes in our credit ratings, where applicable. Unless indicated otherwise in the discussion below, we expect that no material changes in overall financial performance and financial statement line items would arise either from reasonably likely changes in material assumptions underlying the estimate or from selection of a different estimate from within a range of valid estimates.

- Our critical accounting estimates affect line items on the Consolidated statements of income and other comprehensive income, and line items on the Consolidated statements of financial position, as follows:

	Consolidated statements of income and other comprehensive income						
		Operating expenses					
Consolidated statements of financial position	**Operating revenues**	**Goods and services purchased**	**Employee benefits expense**	**Depreciation**	**Amortization of intangible assets**	**Financing costs**	**Employee defined benefit plans re-measurements[2]**
Intangible assets, net, and Goodwill, net					X[1]		
Employee defined benefit pension plans			X	X[3]	X[3]	X	X
Property, plant and equipment, net				X			
Provisions for asset retirement obligations		X		X		X	
Investments	X						
Accounts receivable		X					
Inventories		X					

(1) Accounting estimate, as applicable to Intangible assets with indefinite lives and Goodwill, primarily relates to spectrum holdings and accordingly affects our wireless cash-generating unit.
(2) Other comprehensive income — Item never subsequently reclassified to income.

(3) Accounting estimate impact due to internal labour capitalization rates.

- All critical accounting estimates are uncertain at the time an estimate is made and affect the following Consolidated statements of income and other comprehensive income line items: Income taxes (except for estimates about Goodwill) and Net income. Similarly, all critical accounting estimates affect the following Consolidated statements of financial position line items: Current assets (Income and other taxes receivable), Current liabilities (Income and other taxes payable), Deferred income tax liabilities and Common equity (retained earnings) and Non-controlling interest. The discussion of each critical accounting estimate does not differ between our two segments, wireless and wireline, unless explicitly noted.

Intangible assets, net; Goodwill, net; and Property, plant and equipment, net

General

- The Intangible assets, net, line item represents approximately 37% of Total assets as at December 31, 2016 (38% as at December 31, 2015). Included in Intangible assets are spectrum licences, which represent approximately 31% of Total assets as at December 31, 2016 (32% as at December 31, 2015).

- The Goodwill, net, line item represents approximately 14% of Total assets as at December 31, 2016 and 2015.

- The Property, plant and equipment, net, line item on our Consolidated statements of financial position represents approximately 38% of Total assets as at December 31, 2016 and 37% of Total assets as at December 31, 2015.

- If our estimated useful lives of assets were incorrect, we could experience increased or decreased charges for amortization or depreciation in the future. If the future were to differ adversely from our best estimate of key economic assumptions and associated cash flows were to materially decrease, we could potentially experience future material impairment charges in respect of our Property, plant and equipment assets, our Intangible assets or our Goodwill. If Intangible assets with indefinite lives were determined to have finite lives at some point in the future, we could experience increased charges for amortization of Intangible assets. Such charges in and of themselves do not result in a cash outflow and would not immediately affect our liquidity.

The recoverability of Intangible assets with indefinite lives; *the recoverability of Goodwill*

- The carrying values of Intangible assets with indefinite lives and Goodwill are periodically tested for impairment and this test represents a significant estimate for us.

- The recoverable amounts of the cash-generating units' assets have been determined based on a fair value less costs of disposal calculation (in 2015, a value-in-use calculation was used). There is a material degree of uncertainty with respect to the estimates of the recoverable amounts of the cash-generating units' assets given the necessity of making key economic assumptions about the future. The fair value less costs of disposal and value-in-use calculations both use future cash flows and growth projections (including judgments about the allocation of future capital expenditures supporting both wireless and wireline operations); associated economic risk assumptions and estimates of achieving key operating metrics and drivers; estimates of future generational infrastructure capital expenditures; and the future weighted average cost of capital.

- See *Note 18(c)* of the Consolidated financial statements for further discussion of methodology and sensitivity testing.

The estimated useful lives of assets; the recoverability of tangible assets

- The estimated useful lives of assets are determined by a continuing program of asset life studies. The recoverability of assets with finite lives is significantly impacted by the estimated useful lives of assets.

- Assumptions underlying the estimated useful lives of assets include the life cycle of technology, competitive pressures and future infrastructure utilization plans.

Employee defined benefit pension plans

Certain actuarial and economic assumptions used in determining defined benefit pension costs, accrued pension benefit obligations and pension plan assets

- We review industry practices, trends, economic conditions and data provided by actuaries when developing assumptions used in the determination of defined benefit pension costs and accrued pension benefit obligations. Pension plan assets are generally valued using market prices, however, some assets are valued using market estimates when market prices are not readily available. Actuarial support is obtained for interpolations of experience gains and losses that affect the employee defined benefit plan actuarial gains and losses and accrued pension benefit obligations. The discount rate, which is used to determine the accrued benefit obligation, is based upon the yield on long-term, high-quality fixed-term investments. The discount rate is set annually at the end of each calendar year, based upon yields on long-term corporate bond indices in consultation with actuaries, and is reviewed quarterly for significant changes. Future increases in compensation are based upon the current benefits policies and economic forecasts. We have examined our respective pension obligation and current service cost durations and observed a 10-year difference in duration. As individual discount rates will more accurately reflect the obligation and current service cost, commencing in 2017, we will be applying a dual discount rate methodology.

- On an annual basis, at a minimum, the defined benefit pension plan assumptions are assessed and revised as appropriate. When the defined benefit pension plan key assumptions fluctuate significantly relative to their immediately preceding year-end values, actuarial gains (losses) arising from such significant fluctuations are recognized on an interim basis. Assumptions used in determining defined benefit pension costs, accrued pension benefit obligations and pension plan assets include life expectancy, discount rates, market estimates and rates of future compensation increases. Material changes in overall financial performance and financial statement line items would arise from reasonably likely changes, because of assumptions that have been revised to reflect updated historical information and updated economic conditions, in the material assumptions underlying this estimate. See *Note 14* of the Consolidated financial statements for further analysis.

- This accounting estimate related to employee defined benefit pension plans is in respect of components of the Operating expenses line item, Financing costs line item and Other comprehensive income line item on our Consolidated statements of income and other comprehensive income. If the future were to adversely differ from our best estimate of assumptions used in determining defined benefit pension costs, accrued benefit obligations and pension plan assets, we could experience future increased (or decreased) defined benefit pension expense, financing costs and charges to Other comprehensive income.

Income tax assets and liabilities

The amount and composition of income tax assets and income tax liabilities, including the amount of unrecognized tax benefits

- Assumptions underlying the composition of income tax assets and liabilities are based upon an assessment of the technical merits of tax positions. Income tax benefits on uncertain tax positions are recognized only when it is more likely than not that the ultimate determination of the tax treatment of a position will result in the related benefit being realizable. Income tax assets and liabilities are measured at the amount that is expected to be realized or incurred upon ultimate settlement with taxation authorities. Such assessments are based upon the applicable income tax legislation, regulations, interpretations and jurisprudence, all of which in turn are subject to change and interpretation.

- Current income tax assets and liabilities are estimated based upon the amount of income tax that is calculated as being owed to taxation authorities, net of periodic instalment payments. Deferred income tax liabilities are composed of the tax effect of temporary differences between the carrying amount and tax basis of assets and liabilities, as well as the income tax effect of undeducted income tax losses. The timing of the reversal of temporary differences is estimated and the income tax rate substantively enacted for the periods of reversal is applied to the temporary differences. The carrying amounts of assets and liabilities are based upon the amounts recorded in the financial statements and are, therefore, subject to accounting estimates that are inherent in those balances. The tax basis of assets and liabilities, as well as the amount of undeducted income tax losses, are based upon the assessment and measurement of tax positions, as noted above. Assumptions as to the timing of reversal of temporary differences include expectations about the future results of operations and future cash flows. The composition of income tax liabilities is reasonably likely to change from period to period because of changes in the estimation of these significant uncertainties.

- This accounting estimate is in respect of material asset and liability line items on our Consolidated statements of financial position comprising less than 1% of Total assets as at December 31, 2016 and 2015, and approximately 8% of Total liabilities and owners' equity as at December 31, 2016 (9% as at December 31, 2015). If the future were to adversely differ from our best estimate of the likelihood of tax positions being sustained, the amount of tax expected to be incurred, the future results of operations, the timing of reversal of deductible temporary differences and taxable temporary differences, and the tax rates applicable to future years, we could experience material deferred income tax adjustments. Such deferred income tax adjustments could result in an increase or acceleration of cash outflows at an earlier time than might otherwise be expected.

Provisions for asset retirement obligations

Certain economic assumptions used in provisioning for asset retirement obligations

- Asset retirement obligation provisions are recognized for statutory, contractual or legal obligations, normally when incurred, associated with the retirement of Property, plant and equipment (primarily certain items of outside plant and wireless site equipment) when those obligations result from the acquisition, construction, development and/or normal operation of the assets. The obligations are measured initially at fair value, determined using present value methodology, and the resulting costs are capitalized as a part of the carrying value of the related asset.

- On an annual basis, at a minimum, assumptions underlying the provisions for asset retirement obligations include expectations, which may span numerous decades, about inflation, discount rates and any changes in the amount or timing of the underlying future cash flows. Material changes in financial position would arise from reasonably likely changes, because of assumptions that have been revised to reflect updated historical information and updated economic conditions, in the material assumptions underlying this estimate. The capitalized asset retirement cost is

depreciated on the same basis as the related asset, and the discount accretion is included in the Consolidated statements of income and

other comprehensive income as a component of Financing costs.

- This accounting estimate is in respect of the asset retirement obligations component of the Provisions line item on our Consolidated statements of financial position, and this component comprises approximately 1% of Total liabilities and owners' equity as at December 31, 2016 and 2015. If the provisions for asset retirement obligations were to be inadequate, we could experience a charge to Goods and services purchased in the future. A charge for an inadequate asset retirement obligation provision would result in a cash outflow proximate to the time that the asset retirement obligation is satisfied.

Investments

The recoverability of long-term investments

- We assess the recoverability of our long-term investments on a regular, recurring basis. The recoverability of investments is assessed on a specific-identification basis, taking into consideration expectations about future performance of the investments and comparison of historical results to past expectations.

- The most significant assumptions underlying the recoverability of long-term investments are related to the achievement of future cash flow and operating expectations. Our estimate of the recoverability of long-term investments could change from period to period due to the recurring nature of the recoverability assessment and due to the nature of long-term investments (we do not control the investees).

- Investments are included in the Other long-term assets line item on our Consolidated statements of financial position, which itself comprises approximately 2% of Total assets as at December 31, 2016 (2% as at December 31, 2015). If the allowance for recoverability of long-term investments were to be inadequate, we could experience an increased charge to Other operating income in the future. Such a provision for recoverability of long-term investments does not result in a cash outflow. When there is clear and objective evidence of an increase in the fair value of an investment, which may be indicated by either a recent sale of shares by another current investor or the injection of new cash into the entity from a new or existing investor, we recognize the after-tax increase in value in Other comprehensive income (change in unrealized fair value of available-for-sale financial assets).

Accounts receivable

General

- When determining our allowance for doubtful accounts, we consider the business area that gave rise to the Accounts receivable, conduct a statistical analysis of portfolio delinquency trends and perform specific account identification.

- These accounting estimates are in respect of the Accounts receivable line item on our Consolidated statements of financial position, which comprises approximately 5% of Total assets as at December 31, 2016 and 2015. If the future were to differ adversely from our best estimates of the fair value of the residual cash flows and the allowance for doubtful accounts, we could experience an increase in the doubtful accounts expense in the future. Such doubtful accounts expense in and of itself does not result in a cash outflow.

The allowance for doubtful accounts

- The estimate of our allowance for doubtful accounts could materially change from period to period due to the allowance being a function of the balance and composition of Accounts receivable, which can vary on a month-to-month basis. The variability of the balance of Accounts receivable arises from the variability of the amount and composition of Operating revenues and from the variability of Accounts receivable collection performance.

Inventories

The allowance for inventory obsolescence

- We determine our allowance for inventory obsolescence based upon expected inventory turnover, inventory aging, and current and future expectations with respect to product offerings.

- Assumptions underlying the allowance for inventory obsolescence include future sales trends and offerings and the expected inventory requirements and inventory composition necessary to support these future offerings. Our estimate of the allowance for inventory obsolescence could materially change from period to period due to changes in product offerings and the level of consumer acceptance of those products.

- This accounting estimate is in respect of the Inventories line item on our Consolidated statements of financial position, which comprises approximately 1% of Total assets as at December 31, 2016 and 2015. If the allowance for inventory obsolescence were to be inadequate, we could experience a charge to Goods and services purchased in the future. Such an inventory obsolescence charge does not result in a cash outflow.

8.2 Accounting policy developments

IFRS 9, Financial Instruments

IFRS 9, *Financial Instruments*, is required to be applied for years beginning on or after January 1, 2018. The new standard includes a model for the classification and measurement of financial instruments, a single forward-looking "expected loss" impairment model and a reformed approach to hedge accounting. Based upon current facts and circumstances, we do not expect our financial performance or disclosure to be materially affected by the application of the standard.

IFRS 15, Revenue from Contracts with Customers

IFRS 15, *Revenue from Contracts with Customers*, is required to be applied for years beginning on or after January 1, 2018, such date reflecting the one-year deferral approved by the International Accounting Standards Board (IASB) on July 22, 2015. The IASB and the United States Financial Accounting Standards Board (FASB) worked on this joint project to clarify the principles for the recognition of revenue. The new standard was released in May 2014 and supersedes existing standards and interpretations, including IAS 18, *Revenue*. In April 2016, the IASB issued *Clarifications to IFRS 15, Revenue from Contracts with Customers*, clarifying application of some of the more complex aspects of the standard. We are currently assessing the impacts and transition provisions of the new standard, however, we expect that we will apply the standard retrospectively to prior reporting periods, subject to permitted and elected practical expedients.

The effects of the new standard and the materiality of those effects will vary by industry and entity. Like many other telecommunications companies, we currently expect to be materially affected by its application, primarily in respect of the timing of revenue recognition, the classification of revenue, the capitalization of costs of obtaining a contract with a customer and possibly the capitalization of the costs of contract fulfilment (as defined by the new standard).

Revenue — timing of recognition; classification

The timing of revenue recognition and the classification of our revenues as either service revenues or equipment revenues will be affected, since the allocation of consideration in multiple element arrangements (solutions for our customers that may involve deliveries of multiple services and products that occur at different points in time and/or over different periods of time) will no longer be affected by the current limitation cap methodology.

The effects of the timing of revenue recognition and the classification of revenue are expected to be most pronounced in our wireless segment. Although the measurement of the total revenue recognized over the life of a contract will be largely unaffected by the new standard, the prohibition of the use of the limitation cap methodology will accelerate the recognition of total contract revenue, relative to both the associated cash inflows from customers and our current practice (using the limitation cap methodology). The acceleration of the recognition of contract revenue relative to the associated cash inflows will also result in the recognition of an amount reflecting the resulting difference as a contract asset. Although the underlying transaction economics would not differ, during periods of sustained growth in the number of wireless subscriber connection additions, assuming comparable contract-lifetime per unit cash inflows, revenues would appear to be greater than under the current practice (using the limitation cap methodology). Wireline segment results arising from transactions that include the initial provision of subsidized equipment or promotional pricing plans will be similarly affected.

Costs of contract acquisition; costs of contract fulfilment — timing of recognition

Similarly, the measurement of the total costs of contract acquisition and contract fulfilment over the life of a contract will not be affected by the new standard, but the timing of recognition will be. The new standard will result in our wireless and wireline segments' costs of contract acquisition and contract fulfilment, to the extent that they are material, being capitalized and subsequently recognized as an expense over the life of a contract on a rational, systematic basis consistent with the pattern of the transfer of goods or services to which the asset relates. Although the underlying transaction economics would not differ, during periods of sustained growth in the number of customer connection additions, assuming comparable per-unit costs of contract acquisition and contract fulfilment, absolute profitability measures would appear to be greater than under the current practice (immediately expensing such costs).

Implementation

Our operations and associated systems are complex and our accounting for millions of multi-year contracts with our customers will be affected. Significantly, in order to effect the associated accounting, incremental compilation of historical data will be necessary for the millions of already existing multi-year contracts with our customers that are expected to be in-scope for purposes of transitioning to the new standard. Our current estimate of the time and effort necessary to develop and implement the accounting policies, estimates, judgments and processes (including critical incremental requirements of our information technology systems) we will need to have in place in order to comply with the new standard extends into mid/late-2017.

Once we have developed and implemented the necessary accounting policies, estimates, judgments and processes, we will commence the incremental compilation of historical data, as well as the accounting for that data, which is necessary to transition to, and to make reasonable quantitative estimates (which will also be subject to associated incremental internal controls over financial reporting) of the effects of, the new standard. As a result, at this time, it is not possible to make reasonable quantitative estimates of the effects of the new standard and we may not be able to do so prior to completing our December 31, 2017, annual Consolidated financial statements.

Illustrative example

To assist with understanding how the fundamental timing of recognition and classification of transactions will be affected by the new standard, we have developed an illustrative example, as shown in *Note 2(b)* of the Consolidated financial statements, to contrast the currently expected effects of applying the new standard on certain primary financial statement line items for a single consumer postpaid wireless 24-month contract

(handset and service) involving a re-seller with the effects of applying our current accounting policies.

IFRS 16, Leases

IFRS 16, *Leases*, was released by the IASB in January 2016, is required to be applied for years beginning on or after January 1, 2019, and supersedes IAS 17, *Leases*. Earlier application is allowed, but not before the application of IFRS 15, *Revenue from Contracts with Customers*. The IASB and the FASB of the United States worked together to modify the accounting for leases, generally by eliminating lessees' classification of leases as either operating leases or finance leases and, for IFRS-IASB, introducing a single lessee accounting model.

The most significant effect of the new standard will be the lessee's recognition of the initial present value of unavoidable future lease payments as lease assets and lease liabilities on the statement of financial position, including those for most leases that would be currently accounted for as operating leases. Both leases with durations of 12 months or less and leases for low-value assets may be exempted.

The measurement of the total lease expense over the term of a lease will be unaffected by the new standard. However, the new standard will result in the timing of lease expense recognition being accelerated for leases that would be currently accounted for as operating leases; the IASB expects that this effect may be muted by a lessee having a portfolio of leases with varying maturities and lengths of term. The presentation on the statement of income and other comprehensive income required by the new standard will result in most lease expenses being presented as amortization of lease assets and financing costs arising from lease liabilities rather than as a part of goods and services purchased, thus reported operating income would be higher under the new standard.

Relative to the results of applying the current standard, although the actual cash flows will be unaffected, the lessee's statement of cash flows will reflect increases in cash flows from operating activities offset equally by decreases in cash flows from financing activities. This is due to the payment of the "principal" component of leases that would be currently accounted for as operating leases being presented as a cash flow use within financing activities under the new standard.

We are currently assessing the impacts and transition provisions of the new standard; however, we expect that we will apply the standard retrospectively to prior reporting periods, subject to permitted and elected practical expedients; our current intention is to apply the new standard concurrent with our initial application of IFRS 15, *Revenue from Contracts with Customers*. Our current estimate of the time and effort necessary to develop and implement the accounting policies, estimates and processes (including incremental requirements of our information technology systems) we will need to have in place in order to comply with the new standard extends into late 2017. We expect that our Consolidated statement of financial position will be materially affected, as will those financial metrics related to both debt and results of operations; however, at this time it is not possible to make reasonable quantitative estimates of the effects of the new standard.

Other issued standards

Other issued standards required to be applied for periods beginning on or after January 1, 2017, are expected to have no significant effect on our financial performance or disclosure.

9. General trends, outlook and 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.

9.1 Telecommunications industry in 2016

We estimate that Canadian telecommunications industry revenues (including TV and excluding media) grew by about 2% to approximately $60 billion in 2016. Wireless and data services again drove industry growth. Communication and entertainment consumption behaviours of consumers continued to demonstrate a strong preference for data-rich applications and data-intensive smartphones and tablets.

TELUS generated revenues of $12.8 billion in 2016, representing approximately 21% of industry revenues, with wireless products and services representing 55% of our total revenues. In our wireline business, growth in business process outsourcing, high-speed Internet access, data and TV services has more than offset the decline in demand for legacy voice services.

Wireless

Based on publicly reported competitors' results and estimates, the Canadian wireless industry experienced network revenue growth of approximately 5% in 2016 and EBITDA growth of approximately 4% in 2016. Growth in TELUS wireless network revenue was 3.9% in 2016, and growth in TELUS wireless EBITDA — excluding restructuring and other costs was 4.8% in 2016.

We estimate that the Canadian wireless industry added approximately one million new subscriber units in 2016 along with steady population growth, compared to approximately 780,000 in 2015. With industry additions in 2016, the wireless penetration rate increased to approximately 84% in Canada. We expect modest increases in the penetration rate to continue into 2017. In comparison, the rate in the United States is well over 100%, while in Europe and Asia it is even higher. This suggests an opportunity for continued growth in Canada.

In 2016, the wireless market was characterized by heightened retention and acquisition activity associated with the concurrent expiry of two-year and three-year contracts through June 2016 as a result of the Wireless Code, enacted in 2013, as well as a heightened level of competitive intensity. This led to higher industry retention and acquisition costs, exacerbated by the continued adoption of data-centric smartphones, accompanied by higher upfront device subsidies and higher device costs resulting from the depreciation of the Canadian dollar against the U.S.

dollar in recent years. While this represents upfront pressure on industry margins, smartphones tend to generate higher average revenue per subscriber unit per month (ARPU), experience lower churn rates than earlier or more basic mobile devices, and result in higher average lifetime revenue.

The Canadian wireless industry continues to be highly competitive and capital intensive, characterized by ongoing consolidation. In March, Shaw Communications completed its previously announced acquisition of Wind Mobile, the last of the independent competitors that entered the wireless market after acquiring AWS spectrum in 2008, for $1.6 billion. Shaw has since focused on commencing the build-out of an LTE network and in November 2016, it announced the launch of inner-city LTE networks in Toronto and Vancouver. At the same time, Shaw rebranded Wind Mobile as Freedom Mobile.

In May, BCE announced its intention to acquire Manitoba Telecom Services (MTS). At the same time, TELUS announced an agreement in principle with BCE to acquire a portion of MTS' postpaid wireless subscribers and dealer locations in Manitoba upon completion of the purchase of MTS by BCE. On February 2, 2017, BCE announced that it expected to close its acquisition of MTS by the end of March 2017, subject to Competition Bureau and Industry, Science and Economic Development Canada (ISED) approvals. As of February 9, 2017, BCE had not received the requisite approvals from the Competition Bureau and ISED.

Wireline

Canada's four major cable-TV companies had an estimated installed base of approximately 4.0 million telephony subscribers at the end of 2016. This represents a national consumer market share of approximately 40%, up from 39% in 2015. Other non-facilities-based competitors also offer local and long distance voice over IP (VoIP) services and resell high-speed Internet solutions. This competition, along with technological substitution to wireless services, continues to erode the number of residential network access lines and associated local and long distance revenues, as expected.

The four major cable-TV companies had an estimated 6.5 million Internet subscribers at the end of 2016, up from 6.3 million at the end of 2015. Telecommunications companies had approximately 6.3 million Internet subscribers, up from 6.1 million at the end of 2015. Although the consumer high-speed Internet market is maturing, with a penetration rate of approximately 83% in Western Canada and 82% across Canada, subscriber growth is expected to continue over the next several years. We continue to make moderate market share gains due to the expansion of our fibre-optic network, as well as the pull-through of subscribers from our IP-based Optik TV service.

In 2016, Canadian IP TV providers increased their subscriber base by an estimated 10% to 2.5 million through expanded network coverage, enhanced differentiated service offerings, and marketing and promotions focused on IP TV.

This growth was reflected in cable-TV and satellite-TV subscriber losses, and was primarily driven by strong subscriber loading at TELUS and Bell. We estimate that the four major cable-TV companies have approximately 6.0 million TV subscribers or a 52% market share, down one percentage point from 2015. The balance of industry subscribers were represented by satellite-TV and regional providers. In 2016, our primary Western Canadian cable-TV competitor, Shaw Communications, continued to focus on the roll-out of its metropolitan Wi-Fi network, and commenced trials of its new Comcast X1-based TV platform, which it began rolling out in Calgary. Through the acquisition of Wind Mobile, it is expected that Shaw will expand its ability to bundle wireless services with its cable-based services. In December 2016, Rogers announced its intention to adopt the Comcast X1 TV platform, and halted development of its own proprietary IP TV platform.

9.2 Telecommunications industry general outlook and trends

Wireless

Data growth continues to be driven by the ongoing adoption of data-centric smartphones, the effects of higher-rate two-year plans, the replacement of wireline access to services by wireless access and the ongoing deployment of tablet devices, as well as growth in machine-to-machine (M2M) devices and the Internet of Things (IoT). This trend is expected to continue to increase the demand for data services for the foreseeable future.

While LTE and LTE advanced technology increase download speeds and improve the customer experience, continually increasing data traffic demands is posing challenges to wireless carriers' networks, including our own. (See *High demand for data* in *Section 10.3 Technology*.)

M2M and IoT technologies connect communications-enabled remote devices via wireless networks, allowing them to exchange key information and processes. Advanced platforms and networks are already in place in industries such as utilities, agriculture and fleet management, with deployment ongoing in other industries such as vehicle insurance, retail, food services and healthcare.

Increases in M2M volumes are anticipated to represent a meaningful opportunity for growth in the wireless market. While M2M applications generally have lower ARPU, they tend to generate high service volumes with low or no subsidy costs. The IoT also represents a meaningful opportunity for growth in mobility products and services. This opportunity comprises both wireless connectivity and productivity applications. While IoT connections generally have lower ARPU, these connections, when combined with applications, offer greater customer value and can generate commensurate margins.

Wireline

The traditional wireline telecommunications market is expected to remain very competitive in 2017 as technology substitution — such as the broad deployment of high-speed Internet; the use of email, messaging and social media as alternatives to voice services; and the growth of wireless and VoIP services — continues to replace higher-margin legacy voice revenues. Although we are a key provider of these substitution

services, the decline in this legacy business continues as anticipated. Our long-standing growth strategy remains focused on wireless, data and IP-centric wireline capabilities.

The popularity of viewing TV and on-demand content anywhere, particularly on handheld devices, is expected to continue to grow as customers adopt services that enable them to view content on multiple screens. Streaming media providers continue to enhance over-the-top (OTT) streaming services in order to compete for a share of viewership. Studies suggest that 50% of English-speaking Canadian households had a subscription to Netflix at the end of 2016. Bell Media offers a competing content streaming service through Crave TV. We continue to enhance our Optik TV service with additional content, including ultra-high-definition 4K content, as well as distribution deals with OTT content providers Netflix and Crave TV. In the latter part of 2016, Shaw and Rogers wound down their OTT joint venture Shomi while Amazon Prime video streaming service launched in Canada.

TV providers with media service offerings are monitoring OTT developments and evolving their content and market strategy to compete with these non-traditional offerings, as OTT can be viewed as both competitive and complementary. We view OTT as an opportunity to add increased capabilities to our linear and on-demand assets, provide customers with flexible options to choose the content they want and encourage greater customer use of the TELUS high-speed Internet and wireless networks.

Telecommunications companies continue to make investments in DSL broadband and fibre-optic technologies in order to maintain and enhance their ability to support enhanced IP-based services and to support higher broadband speeds. Cable-TV companies continue to evolve their cable networks with the gradual roll-out of the DOCSIS 3.1 platform. Although this platform increases speed in the near term and is more cost efficient, it does not offer the same advanced capabilities as fibre over the longer term. Our Optik TV footprint covers more than 2.9 million households and businesses, with more than 90% having access to speeds of at least 50 Mbps through VDSL bonding and other newer technologies,

enabling us to deliver a better customer experience and more simultaneous content. In addition, at the end of 2016, our fibre-optic network was available to approximately 1.08 million homes and businesses. Advances in LTE wireless technology and our extensive LTE network also increasingly allow us to target otherwise underserved areas with a fixed wireless solution.

Combining wireline local and long distance voice services with wireless and high-speed Internet access and entertainment services, telecommunications companies are increasingly offering bundled products to achieve competitive differentiation and provide customers with more flexibility and choice on networks that can reliably support these services. Our broadband investments, including the build-out of our fibre-optic network, our premium differentiated IP-based Optik TV service and integrated bundled service offerings, continue to improve our competitive position and customer loyalty relative to our main cable-TV competitor.

The Canadian broadcasting industry is characterized by significant vertical integration, with most of our competitors owning or controlling broadcast content. In April 2016, Shaw Communications sold its wholly owned broadcasting subsidiary, Shaw Media, to Corus Entertainment Inc. for a combination of cash and shares that resulted in Shaw holding a 37% stake in Corus. (See *Section 9.4* and *Vertical integration into broadcast content ownership by competitors* in *Section 10.2*.)

Additional wireline capabilities

In the business market (enterprise and small and medium-sized businesses, or SMB), the convergence of IT and telecommunications, facilitated by the ubiquity of IP, continues to shape competitive investments. Cable-TV companies are making significant investments to better compete in the highly contested SMB space. Telecommunications companies like TELUS are providing network-centric managed applications, while IT service providers are bundling network connectivity with their proprietary software as service offerings. Manufacturers continue to bring all-IP and converged (IP plus legacy) equipment to market, enabling ongoing migration to IP-based solutions. The development of IP-based platforms providing combined IP voice, data and video solutions creates potential cost efficiencies that compensate, in part, for the loss of margins resulting from the migration from legacy to IP-based services. New opportunities exist for integrated solutions and business process outsourcing that could have a greater business impact than traditional telecommunications services. Data security is an area that represents both challenges and opportunities for us in providing customers with our robust data security solutions. Increasingly, businesses are looking to partner with their communications service provider to address their business goals and challenges, and to tailor solutions for their needs that leverage telecommunications in ways not imagined five to 10 years ago.

Healthcare is expected to be a growth area in future years, based on an aging population in Canada, an increasing emphasis on chronic disease management, and the potential benefits that technology can deliver in terms of efficiency and effectiveness within the sector. We utilize our expanding broadband network in order to increase the availability, integration and effectiveness of our innovative tools and applications across the primary care ecosystem in order to position ourselves to compete for the anticipated future growth in this sector. These tools include personal health records to facilitate self-management of healthcare data, electronic drug prescriptions with online insurance validation by the physician, and home health monitoring devices and data capture with caregiver oversight. The digitization of everyday functions in the healthcare ecosystem, combined with broadband network connectivity, provides an open platform that can support the development and delivery of even more advanced health applications. There are significant competitors in the sector, as described under *Wireline products and services* in *Section 4.1*.

Strong continued growth is expected in cloud-based services in Canada. Leveraging our eight intelligent data centres (IDCs) located across Canada, we are expanding cloud-computing services with managed solutions in higher-margin segments. This provides significant differentiation relative to our peers that have largely chosen to acquire companies in the pure-play data hosting space. Investments in our IDCs also provide internal capabilities to strategically enhance our own network and IT systems.

As technology in our industry continues to change rapidly and customer demand continues to grow, we are committed to evolving our

business to offer innovative and reliable services and thought leadership in core future growth areas that are complementary to our traditional business. This — along with our intense focus on leadership in delivering an enhanced customer experience — positions us for continued differentiation and moderate growth.

9.3 TELUS assumptions for 2017

In 2017, we expect moderate growth in both wireless and wireline EBITDA, driven by the continued high demand for data services and high-speed Internet access in our wireless and wireline products and services; our consistent strategic focus on our core wireless and wireline capabilities (see *Section 2.2 Strategic imperatives* and *Section 4 Capabilities*); significant ongoing investments in our leading broadband networks; continued efforts to enhance operational efficiency; and our intense focus on an enhanced customer experience across all areas of our operations.

Our assumptions in support of our 2017 outlook are generally based on the industry analysis above, including our estimates regarding economic and telecom industry growth (see *Section 1.2 The environment in which we operate*), as well as our 2016 results and trends discussed in *Section 5*. Our key assumptions include the following:

- Moderately higher economic growth in Canada in 2017, estimated to be 1.8% (from 1.2% in 2016). For our incumbent local exchange carrier (ILEC) provinces in Western Canada, we estimate that economic growth in B.C. will be 2.3% in 2017 (2.9% in 2016), and that economic growth in Alberta will be between 1.0 to 2.0% in 2017 (economic contraction of 2.4% in 2016).
- No material adverse regulatory rulings or government actions.
- Continued intense wireless and wireline competition in both consumer and business markets.
- A modest increase in wireless industry penetration of the Canadian market, consistent with 2016.
- Ongoing subscriber adoption of, and upgrades to, data-intensive smartphones, as customers want more mobile connectivity to the Internet.
- Wireless revenue growth resulting from modest growth in both postpaid subscriber loadings and blended ARPU.
- Continuing pressure on wireless acquisition and retention expenses, dependent on gross loading, competitive intensity and customer preferences.
- Continued growth in wireline data revenue, resulting from an increase in the high-speed Internet and Optik TV subscriber base, speed upgrades and expansion of the broadband infrastructure, as well as business outsourcing and healthcare solutions.
- Continued erosion of wireline voice revenue, resulting from technological substitution and greater use of inclusive long distance and lower wholesale volumes.
- Continued focus on our customers first initiatives and maintaining our customers' likelihood-to-recommend scores.
- Employee defined benefit pension plans: Pension plan expense of approximately $83 million recorded in Employee benefits expense and approximately $5 million recorded in employee defined benefit pension plans net interest in Financing costs; a 3.80% rate for discounting the obligation and 4.00% rate for current service costs for employee defined benefit pension plan accounting purposes; and defined benefit pension plan funding of approximately $65 million.
- Restructuring and other costs of approximately $125 million for continuing operational efficiency and effectiveness initiatives, with margin enhancement initiatives to mitigate pressures related to economic growth, technological substitution and subscriber growth.
- Income taxes: Income taxes computed at applicable statutory rate of 26.4 to 26.9% and cash income tax payments between $300 million and $360 million (2016 — $600 million). Cash tax payments are decreasing in 2017, reflecting both lower instalment payments for 2017 based on 2016 income and a lower final instalment payment for 2016 to be made in early 2017, partly offset by a decrease in income tax recoveries.
- Increased investments in broadband infrastructure, including upgrades and expansions of our fibre-optic network and 4G LTE capacity, as well as investments in network and systems resiliency and reliability.
- No wireless spectrum auctions anticipated in 2017.
- A continuing weakness in the average Canadian dollar to U.S. dollar exchange rate (U.S. 75.5 cents in 2016).

9.4 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 is a summary of certain significant regulatory developments and proceedings relevant to our business and our industry. This summary is not intended to be a comprehensive legal analysis and description of all of the specific issues described. Although we have indicated where we do not currently expect the outcome of a development or proceeding to be material to us, there can be no assurance that the expected outcome will occur or that our current assessment of its likely impact on us will be accurate. See *Section 10.4 Regulatory matters*.

Radiocommunication licences and spectrum-related matters

ISED regulates, among other matters, the allocation and use of radio spectrum in Canada and licenses radio apparatus, frequency bands and/or radio channels within various frequency bands to service providers and private users. The department also 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.

600 MHz spectrum repurposing decision released

On August 14, 2015, ISED published *Decision on Repurposing the 600 MHz Band*, *SLPB-004-15*. In its decision, ISED announced its intention to jointly repack the 600 MHz band in line with the U.S. and to adopt the mobile band plan arising from the Federal Communications Commission (FCC) Incentive Auction that began on March 29, 2016. It is expected that ISED will consult on a licensing framework (including auction rules) in due course following the completion of the U.S. auction. An auction of 600 MHz spectrum in Canada is not expected until 2018 at the earliest. There is a risk that any auction rules may favour certain carriers.

Regulatory and federal government reviews

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

Review of wireless code

On July 28, 2016, the CRTC launched a proceeding to review the Wireless Code that was originally implemented in 2013. The CRTC has asked parties to comment on the effectiveness of the Wireless Code and whether any of its provisions should be updated. The oral hearing portion of the proceeding commenced on February 6, 2017. TELUS is participating in this proceeding, asking for, among other things, changes to allow for more flexibility in how early cancellation fees are calculated, to allow for more offers to be made to customers, to clarify how caps on data usage are to be managed and to confirm that the default version of the permanent copy of a contract is to be electronic. These amendments will increase customer choice and are consistent with customer preferences. If, as expected, the CRTC determines that certain refinements of the Wireless Code are necessary, the decision in this proceeding is not expected to have a material impact on TELUS. However, it is too early to determine whether broader changes will be introduced.

Examination of differential pricing practices related to Internet data plans

On May 18, 2016, the CRTC issued *Examination of differential pricing practices related to Internet data plans*, *Telecom Notice of Consultation CRTC 2016-192*, following a complaint concerning Videotron's pricing practices when offering its unlimited music service to its mobile wireless customers. In general terms, differential pricing occurs when the same or a similar product or service is sold to customers at different prices. Differential pricing is a normal feature of competitive markets, including telecommunications markets. Examples of differential pricing practices include zero-rating (where an Internet service provider (ISP) exempts data traffic from a particular application or a set of applications from a monthly data plan, which is often sold to consumers at a fixed monthly price) and sponsored data (where companies sponsor the data usage for specific content, allowing an ISP's customers to access this content with no impact on monthly data plan allowances). The CRTC's stated objective in this proceeding is to develop an overall approach to differential pricing for Internet data plans, as opposed to adjudicating complaints on a case-by-case basis. At the public hearing that began in late October 2016, the CRTC engaged in extensive discussion with participating parties on the issue of data usage and caps on usage, also referred to as "data caps," despite the fact that this matter was not outlined for consideration in the notice. TELUS' position is that differential pricing, including zero-rating, is pro-competitive and pro-consumer; however, differential pricing by vertically integrated communications companies in respect of their affiliated broadcasting services is a concern due to the market power of these firms, and zero-rating or discounting data in respect of their own affiliated broadcasting services should be prohibited by the CRTC. The decision in this proceeding is not expected to have a material impact on TELUS.

CRTC decision to require pro-rated refunds

On May 5, 2016, the CRTC issued *Quebecor Media Inc. — Prohibition of 30-day cancellation policies — Application*

regarding pro-rated refunds for cancelled services, *Telecom Decision CRTC 2016-171*, in which the CRTC, among other things, mandated that all service providers are to provide pro-rated refunds to customers who cancel telecommunications and broadcasting service contracts. This decision was unexpected, in that it was contradicted by guidance that TELUS and third parties had received from CRTC staff following a 2014 CRTC decision regarding prohibition of a notice period for cancellation of services and in light of past decisions on the Wireless Code and notice of cancellation policies that had not mandated pro-rated refunds. The decision impacts billing systems, with no transition period provided to implement the required changes. On July 4, 2016, TELUS filed an application with the CRTC seeking guidance and clarification that the decision does not apply with respect to wireless services with a subsidized device, usage-based services and local telephone service in non-forborne exchanges. TELUS also requested an extension of time to implement the decision. The CRTC has yet to issue a decision on this matter. Pending resolution of TELUS' application, the potential impact of this decision is not expected to be material.

Wireline wholesale services review

On July 22, 2015, the CRTC released *Review of wholesale wireline services and associated policies, Telecom Regulatory Policy CRTC 2015-326*. This decision updates the CRTC's framework for the provision of regulated wireline wholesale services and will remain in place for a minimum of five years. The decision substantially preserves the status quo established in the CRTC's 2008 wireline wholesale services framework, with two key exceptions. First, the CRTC has ordered the introduction of a disaggregated wholesale high-speed Internet access service for ISP competitors. This will include access to FTTP facilities. This requirement is being phased in geographically beginning in the largest markets in Ontario and Quebec (i.e. in the serving territories of Bell Aliant, Bell Canada, Cogeco, Rogers and Videotron). The CRTC initiated a followup proceeding to determine the technical configurations, appropriate costs and wholesale cost-based rates in those regions. Second, the CRTC determined that the provision of access to unbundled local loops to competitors will no longer be mandated and will be phased out over a three-year transition period. Unbundled local loops are the copper lines connecting homes and businesses to the central

offices in TELUS' network. Competitors use these lines to provide voice services or low-speed Internet services to their retail customers.

The FTTP followup activities directed in *Telecom Policy CRTC 2015-326* remain ongoing. In *Follow-up to Telecom Regulatory Policy 2015-326 — Implementation of a disaggregated wholesale high-speed access service, including over fibre-to-the-premises access facilities*, *Telecom Decision CRTC 2016-379*, the CRTC rendered its decision on the first phase of the followup process for disaggregated FTTP wholesale services for Bell, Rogers, Videotron and Cogeco by ruling on the technical configurations for their respective services. In December 2016, Bell Canada filed an application to review and vary and stay certain determinations in that decision concerning the implementation of disaggregated wholesale high-speed access on which the CRTC has yet to issue a determination. Associated tariff and cost study reviews have now begun for Bell, Rogers, Videotron and Cogeco, which filed their proposed cost studies and tariffs in January 2017. For the second phase, which involves FTTP wholesale services for the rest of Canada (including TELUS' serving territories), a proceeding on technical configurations is expected to commence later in 2017. The associated cost study and tariff review will follow. TELUS anticipates no material adverse impact in the short term from the CRTC's decision. Given the phased implementation of the mandated provision of wholesale access to our FTTP networks, it is too early to determine the impact this decision will have on TELUS in the longer term. The determination that the provision of access to unbundled local loops to competitors will no longer be mandated and will be phased out over a three-year transition period is not expected to have a material impact on TELUS.

Wireless wholesale services review

On May 5, 2015, the CRTC issued its decision at the conclusion of its wireless wholesale services review. The main determination was that the CRTC will regulate the wholesale GSM-based domestic roaming rates that TELUS, Rogers and Bell charge other wireless carriers. Proposed final tariff rates were filed by TELUS, Rogers and Bell on November 23, 2015, based on the CRTC's Phase II costing approach. The CRTC is in the process of reviewing these tariff filings, with the announcement of the final rates expected in the first half of 2017. Interim rates are currently in place. While TELUS does not currently expect that the decision will have a negative material impact, the impact will be assessed once the final wholesale roaming rates have been approved.

Basic telecommunications services

On April 9, 2015, the CRTC issued *Telecom Notice of Consultation CRTC 2015-134,* announcing a two-phase proceeding to determine which telecommunications services (e.g. voice and broadband) are required by all Canadians in order to participate in the digital economy. In the first phase of the review, the CRTC gathered information in order to better understand which telecommunications services are being offered across Canada and whether any areas are underserved or unserved. In the second phase of the review, the CRTC conducted consultations to collect comments from Canadians regarding the issues identified. Following the second phase, a public hearing commenced in April 2016. Among other things, the CRTC reviewed whether broadband Internet service should be a basic telecommunications service and whether there should be changes to the National Contribution Fund from which subsidies are provided for voice service in high-cost serving areas (and video relay service). While TELUS is supportive of the inclusion of broadband service as a part of basic telecommunications services at a 5 Mbps download and 1 Mbps upload speed,

TELUS opposed any new regulatory requirements pertaining to the provision of such service or mandating new minimum data allowances and quality of service indicators for retail broadband service, as well as any new subsidies for basic broadband service from the National Contribution Fund.

On December 21, 2016, the *CRTC issued Modern Telecommunications Services — The path forward for Canada's digital economy* . The CRTC established a new "universal service objective" that Canadians, in urban areas as well as in rural and remote areas, have access to voice services and broadband Internet access services, on both fixed and mobile wireless networks. High-speed Internet service is now considered a basic telecommunications service, along with voice services and video-relay service. The CRTC established an objective for broadband service delivered at speeds of 50/10 Mbps for 90% of Canadian households by 2021 and 100% of households within 10 to 15 years. The CRTC expects this to be met by a combination of private investment and government funding. The CRTC did not impose an obligation to serve for high-speed Internet access on any of the ISPs.

The CRTC will establish a new broadband funding mechanism to complement private and government funding initiatives that will be administered by a neutral third party. Initial annual funding of $100 million will be increased by $25 million per year for four years and will then be capped at $200 million per year. The existing local voice subsidy will be gradually phased out, but will not be removed unless reliable broadband Internet access service is available. TELUS retains the obligation to serve for local voice service in all exchanges.

As followup to the decision, ISPs will be required to offer the option for unlimited data for fixed broadband services, but no pricing restrictions were imposed. Followup proceedings will be launched in early 2017 to determine the precise details associated with transitioning the existing subsidy fund for voice service to the subsidization of broadband. The CRTC also outlined a number of other follow-up activities pertaining to contract information for fixed broadband services, the availability and accessibility of wireless services for customers with disabilities, and establishing quality of service metrics for broadband latency, jitter and packet loss for fixed broadband Internet service. It is not expected that this decision, including related followup activities, will have a negative material impact on TELUS.

9-1-1 networks

On March 29, 2016, the CRTC issued *Establishment of a regulatory framework for next generation 9-1-1 in Canada* , *Telecom Notice of Consultation CRTC 2016-116*. The CRTC announced this proceeding to establish a regulatory framework for next generation 9-1-1 services that will take into account the evolving public safety needs of Canadians, in that next generation 9-1-1 services will provide access to new and innovative 9-1-1 capabilities. TELUS participated in an oral hearing phase of the proceeding in mid-January 2017 and filed its final comments on

January 31, 2017. It is not expected that the CRTC's review will have a material impact on TELUS' operations.

Review of tariffs for aggregated wholesale high-speed access services

The CRTC is conducting a review of cost studies and rates associated with aggregated wholesale high-speed access services, which are services provided by incumbent local exchange carriers (ILECs) and cable companies on their respective DSL and cable facilities to ISPs, which then resell high-speed Internet services. In March 2016, the CRTC determined that all rates for aggregated wholesale high-speed access services are to be interim rates and asked ILECs and cable companies to file cost studies and proposed rates for these services. While this review remains ongoing, on October 6, 2016, the CRTC issued *Tariff notice applications concerning aggregated wholesale high-speed access services — Revised interim rates*, *Telecom Order 2016-396*, in which it reduced many of the interim rates to be charged by ILECs and cable companies, including TELUS. The CRTC ordered the reduction for TELUS because it found that TELUS had filed insufficient evidence to support its cost studies. This review remains ongoing, and TELUS will have an opportunity to file further evidence to substantiate its costs and proposed rates. It is not expected that the outcome of this review will have a material impact on TELUS.

Disconnection practices between telecommunications service providers

On August 18, 2016, the CRTC issued *Call for comments: Disconnection practices between telecommunications service providers* , *Telecom Notice of Consultation CRTC 2016-333*, in which it sought industry comments with respect to the practices associated with the disconnection of the service for a customer of one telecommunications service provider by another telecommunications service provider when that customer changes carriers, and specifically whether any regulatory measures should be introduced, including mandatory notification requirements. TELUS filed its comments in this proceeding, for which a determination has yet to be issued. A decision is expected by the end of the first quarter of 2017 and is not expected to have a material adverse impact on TELUS.

Unwanted, unsolicited and illegitimate telecommunications

On November 7, 2016, the CRTC released *Empowering Canadians to protect themselves from unwanted unsolicited and illegitimate telecommunications*, *Compliance and Enforcement and Telecom Regulatory Policy CRTC 2016-442* , in which the CRTC found that existing solutions were not sufficient to help Canadians combat nuisance calls, including calls that use caller ID spoofing in order to conceal their origin. The CRTC requested industry participants to develop best practices for universal blocking of blatantly illegitimate calls, and required telecommunications service providers to

propose technical solutions for opt-in filtering services. TELUS is participating in the followup proceeding to consider these issues. It is not expected that the CRTC's followup review will have a material impact on TELUS' operations.

Broadcasting-related issues

Broadcasting distribution undertaking licences held by TELUS

TELUS' national licence to operate a video-on-demand undertaking was granted an administrative renewal, which extends the licence term to August 31, 2017 (*Broadcasting Decision CRTC 2016-7* issued on January 2, 2016). This licence-term extension has enabled the CRTC to conduct a consultation on the standard conditions of licence of all video-on-demand licences, which resulted in *Broadcasting Regulatory Policy CRTC 2016-436* issued on November 2, 2016). A renewal proceeding for all video-on-demand licences is expected to be launched in early 2017. Also, TELUS' regional licences to operate broadcasting distribution undertakings in Alberta and British Columbia were granted an administrative renewal, which extends the licence terms to November 30, 2017. TELUS has filed applications for new broadcasting distribution licences to serve markets in B.C. and Alberta, and a public hearing is expected in mid-2017 to consider these applications. TELUS' regional broadcasting distribution licence to serve Quebec expires in 2018. In July 2014, the CRTC approved our application for a licence to operate a national pay-per-view service (scheduled to expire on August 31, 2020).

Enforcement of vertical integration framework

In September 2011, the CRTC announced a policy framework to address concerns relating to the potential incentive for anti-competitive behaviour by companies that own both programming services and distribution networks (vertically integrated broadcasting companies). The CRTC subsequently introduced a new code of conduct through amendments to the various broadcasting regulations and exemption orders. Following the CRTC's "Let's Talk TV" proceeding in 2014, the CRTC further expanded its ability to deal with anti-competitive conduct by replacing the code of conduct with a new Wholesale Code that will be made enforceable by regulation. This new Wholesale Code includes many new provisions to address abusive practices by vertically integrated broadcasting companies regarding the carriage of their programming services. In particular, the new Wholesale Code sets out a list of prohibited conduct and criteria to determine the fair market value of programming services in order to ensure that vertically integrated entities are prevented from artificially inflating the cost of services for their competitors. Bell Canada was granted leave to appeal the CRTC's decision relating to the new Wholesale Code and the appeal is pending a hearing at the Federal Court of Appeal in the first quarter of 2017.

Without timely and strict enforcement of the vertical integration safeguards, there is a risk that vertically integrated competitors could unfairly raise programming costs for non-vertically integrated companies such as TELUS, and/or attempt to withhold content on digital media platforms, such as Internet and mobile platforms, or otherwise disadvantage us in our ability to attract and retain wireless or Optik TV customers. See Vertical integration into broadcast content ownership by competitors in Section 10.2.

Review of Canada's cultural policies

On April 22, 2016, the Minister of Canadian Heritage announced a broad review of Canada's cultural policies that is intended to strengthen the "creation, discovery and export of Canadian content in a digital world." Amendments to the *Broadcasting Act*, *Telecommunications Act* and *Copyright Act*, changes to the mandates of institutions and agencies such as the CRTC and the CBC, and the potential introduction of new laws and establishment of new agencies are under consideration by the Minister. TELUS has participated in the two phases of this consultation. It is unknown at this time whether there will be a material impact on TELUS' operations resulting from this consultation.

Government of Quebec Bill 74 — Blocking of certain websites associated with online gambling

Bill 74 was adopted on May 17, 2016, and assented to on May 18, 2016, by the National Assembly of Quebec. The provisions of this legislation, which will allow the Government of Quebec to require ISPs and wireless service providers operating in Quebec to block access to a list of prescribed gambling websites, are not yet in force (anticipated to occur in 2018). On July 8, 2016, the Public Interest Advocacy Centre (PIAC) filed an application with the CRTC seeking: a declaration that Bill 74 is unconstitutional; a declaration that any application by a carrier, to the CRTC, for website blocking pursuant to this legislation will be denied; and an interim injunction enjoining ISPs and wireless service providers operating in Quebec from actually blocking websites or taking steps to prepare for the implementation of Bill 74. In July 2016, the Canadian Wireless Telecommunications Association (CWTA) filed a constitutional challenge to Bill 74 in Quebec Superior Court. On September 1, 2016, the CRTC issued a letter asking for comments on its preliminary view that the PIAC application should be suspended pending the disposition of the constitutional challenge before the Quebec Superior Court. On September 16, 2016, TELUS filed a letter in support of the position that the PIAC application before the CRTC should be suspended. On December 9, 2016, the CRTC issued a decision suspending the PIAC application pending the disposition of the CWTA court challenge. The CRTC also confirmed its preliminary view that *Section 36* of the *Telecommunications Act* prohibits carriers from blocking specific websites, and that compliance with other legal requirements would not justify blocking access without CRTC approval. The constitutional challenge to Bill 74 is expected to be heard in the Quebec Superior Court some time in the spring of 2017. It is not expected that this legislation will have a material impact on TELUS if and when it comes into force.

10. Risks and risk management

10.1 Overview

In the normal course of our business activities, we are exposed to both risks and opportunities. Risk oversight and risk management processes are integral elements of our risk governance and strategic planning efforts.

Board risk governance and oversight

We maintain strong risk governance and oversight practices, with risk oversight responsibilities outlined in the Board's and the Board committees' terms of reference. The Board is responsible for ensuring the identification of material risks to our business and overseeing the implementation of appropriate systems and processes to identify, monitor and manage material risks.

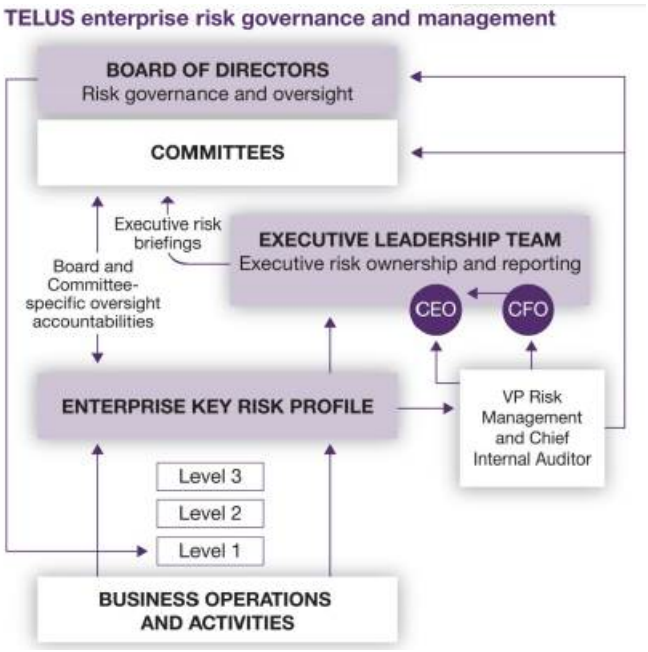
In addition:

- Risks on the enterprise key risk profile are assigned for Board or committee oversight
- Board committees provide updates to our Board on risks overseen by those committees based on their respective terms of reference

- Our Board or Board committees may request risk briefings by our executive risk owners. The Vice-President, Risk Management and Chief Internal Auditor attends and/or receives a summary of these briefings.

Risk governance culture

We have a strong risk governance culture across TELUS that starts with clear risk management leadership and transparent communications, supported by the organization's tone at the top. Accountability for the management of risks and reporting of risk information is clearly defined through our approach to risk governance. Training and awareness programs, appropriate resources and risk champions help to ensure we have all of the risk management competencies necessary to support effective decision-making across the organization. Ethics are integral to TELUS' risk governance culture and our code of ethics and conduct directs team members to meet the highest standards of integrity in business decisions and actions.



Responsibilities for risk management

We use a multi-step approach to manage our risks, with responsibility shared across the organization. The first line of defence is executive and operating management, whose members have integrated risk management into core decision-making processes (including strategic planning processes) and day-to-day operations. We have risk management and compliance functions across the organization, including Finance, Legal, Privacy, Security and Business Continuity offices, which form the second line of defence. These functions work collaboratively with management to monitor the design and operation of our risk controls. Internal Audit is the third line of defence and provides independent assurance regarding the effectiveness and efficiency of risk management and controls across all aspects of the business.

Definition of business risk

We define business risk as the degree of exposure associated with the achievement of key strategic, financial, organizational and process objectives in relation to the effectiveness and efficiency of operations, the reliability and integrity of financial reporting, compliance with laws, regulations, policies, procedures and contracts, and safeguarding of assets within an ethical organizational culture.

Our enterprise risks arise primarily from our business environment and are fundamentally linked to our strategies and business objectives. We strive to proactively mitigate our risk exposures through performance planning, business operational management and risk response strategies, which can include mitigating, transferring, retaining and/or avoiding risks. For example, residual exposure for certain risks is mitigated through insurance coverage, where we judge this to be efficient and commercially viable. We also mitigate risks through contract terms, as well as through contingency planning and other risk response strategies, as appropriate.

We strive to avoid taking on undue risk whenever possible and work to ensure alignment of risks with business strategies, objectives, values and risk tolerances.

Risk and control assessment process

We use a three-level enterprise risk and control assessment process that solicits and incorporates the input of team members from all areas of TELUS. The process enables us to track multi-year trends in the perception of various key risks and our control environment across the organization.

Three-level enterprise risk and control assessment process

Level one: Annual risk and control assessment

Annually, we undertake a comprehensive review that brings together interviews with executive leaders, information and updates from our ongoing strategic planning process, consideration of recent internal and external audits, SOX (Sarbanes-Oxley Act of 2002) compliance and risk management activities, and an enterprise-wide risk and control environment assessment aligned with the 2013 COSO (Committee of Sponsoring Organizations of the Treadway Commission) enterprise risk management and internal control integrated frameworks.

The assessment is widely distributed to our entire leadership team (all executive vice-president, vice-president and director-level team members) and a random sample of management professional team members. More than 2,000 individuals participated in the assessment in 2016.

Key enterprise risks are identified, defined and prioritized. Perceived risk resiliency is assessed for each risk, risk appetite is evaluated by risk

category and fraud risks are considered. Executive-level risk owners are assigned for each key risk and Board and committee risk oversight responsibilities are defined in our Board Policy and Terms of Reference.

Board members also complete an annual assessment in which they provide perspectives on our key risks and approach to enterprise risk management, and gauge our risk appetite by risk category.

Results of the annual risk and control assessment are shared with senior management, our Board of Directors and the Audit Committee. The results guide the development of our annual risk-focused internal audit program, which is approved by the Audit Committee. Risk assessments are also incorporated into our strategic planning, operational risk management and performance management processes, and are shared with our Board.

Level two: Quarterly risk assessment

We conduct quarterly risk assessment reviews with our executive-level risk owners and designated risk primes across all business units to capture and communicate changing business risks, identify key risk mitigation activities, and provide quarterly updates and assurance to the Audit Committee and other applicable Board committees.

Level three: Granular risk assessment

We conduct granular risk assessments for specific audit engagements and various risk management, strategic and operational initiatives (e.g. strategic planning, project and environmental management, safety, business continuity planning, network and IT vulnerability, and fraud and ethics). The results of the multiple risk assessments are evaluated, prioritized, updated and integrated into the key risk profile, policies and processes throughout the year.

Principal risks and uncertainties

The following subsections describe our principal risks and uncertainties and associated risk mitigation activities. The significance of these risks is such that they alone or in combination may have material impacts on our business operations, reputation, results and valuation.

Although we believe the measures taken to mitigate risks described in each risk section below are reasonable, there can be no expectation or assurance that they will effectively mitigate or fully address the risks described or that new developments and risks will not materially affect our operations or financial results. Forward-looking statements in this section and elsewhere in this MD&A are based on the assumption that our risk mitigation measures will be effective. See *Caution regarding forward-looking statements*.

10.2 Competition

Customer experience

Our customers' loyalty and their likelihood to recommend TELUS are both dependent upon our ability to provide a service experience that meets or exceeds their expectations. Consequently, if our service experience does not meet or exceed customer expectations, TELUS' brand could suffer, potentially resulting in higher rates of customer churn. Meanwhile, our profitability could be negatively impacted should customer net additions decrease and/or the costs to acquire and retain customers increase.

Risk mitigation: Our top corporate priority is putting customers first and earning our way to industry leadership in the likelihood to recommend from our clients. To enhance the customer experience, we continue to invest in our products and services, system and network reliability, team members and system and process improvements. Additionally, we endeavour to introduce innovative products and services, enhance our current services with integrated bundled offers and invest in customer-focused initiatives to bring greater transparency and simplicity to our customers, all in order to help differentiate our services from our competitors. (See *Strategic imperatives* in *Section 2.2* and *Corporate priorities* in *Section 3*.)

Intense wireless competition is expected to continue

At the end of 2016, there were nine facilities-based wireless competitors operating in Canada, including TELUS (some nationally and others regionally — see *Competition overview* in *Section 4.1*). Shaw Communications' acquisition of Wind Mobile in late 2015, subsequently rebranded as Freedom Mobile, will lead to increased competitive intensity in wireless and wireline services across major urban markets in B.C., Alberta and Ontario.

All wireless competitors use various promotional offers, including price discounting on both handsets and rate plans and flat-rate pricing for voice and data, to attract customers. Such promotional activity, as well as the sustained consumer appetite for higher-value smartphones, combined with the effect of the ongoing weakness in the Canadian dollar to U.S. dollar exchange rate, may continue to lead to higher costs of acquisition and retention. Meanwhile, more inclusive rate plans, including larger allotments of data for data sharing and international roaming, and substitution to increasingly available Wi-Fi networks could lead to pressure on data usage, resulting in pressure on average revenue per subscriber unit per month (ARPU) and churn. In addition, with a large percentage of the subscriber base already using devices with advanced features, customers may wish to upgrade less frequently, potentially requiring additional promotional incentives to encourage upgrades to a new device, which will add more pressure to costs of acquisition and retention. (See *Wireless trends and seasonality* in *Section 5.4*.)

We also expect increased competition based on the use of unlicensed spectrum to deliver higher-speed data services, such as the use of Wi-Fi networks to deliver entertainment to customers beyond the home. In addition, satellite operators such as Xplornet are augmenting their existing high-speed Internet access (HSIA) services by launching high-throughput satellites.

***Risk mitigation*:** Our 4G wireless networks cover approximately 99% of Canada's population, facilitated by network access agreements with Bell Canada and SaskTel. Wireless 4G technologies have enabled us to establish and maintain a strong position in smartphone and data device

selection and expand roaming capability to more than 225 countries. Faster data download speeds provided by these technologies enable delivery of our Optik on the go service to mobile devices when customers are beyond the reach of Wi-Fi.

To compete more effectively in a variety of customer segments, we offer two flanker brands, Koodo Mobile and Public Mobile. We believe that by leveraging our TELUS, Koodo Mobile and Public Mobile brands through uniquely targeted value propositions and distinct distribution channels, including web-based channels, we are well-positioned to compete with other wireless providers.

We continue our disciplined long-term strategy of investing in the growth areas of our Company and executing upon our customers first priority. We intend to continue to market and distribute innovative and differentiated wireless services; offer bundled wireless services (e.g. voice, text and data), including data sharing plans; invest in our extensive network to support customer service; evolve technologies; invest in our distribution channels; and acquire the use of spectrum to facilitate service development and the expansion of our subscriber base, as well as to address the accelerating growth in demand for data usage.

Wireline voice and data competition

We expect competition to remain intense from traditional telephony, data, IP and IT service providers, as well as from VoIP-focused competitors in both consumer and business markets. This competitive intensity, including the use of various promotional offers, also places pressures on ARPU, churn and costs of acquisition and retention.

The industry transition from legacy voice infrastructure to IP telephony, and from legacy data platforms to Ethernet, IP virtual private networks, multi-protocol label switching IP platforms and IP-based service delivery models, continues to create both uncertainties and opportunities. Legacy data revenues and margins continue to decline, and this has been only partially offset by growth in demand and/or migration of customers to IP-based platforms. IP-based solutions are also subject to downward pricing pressure, lower margins and technological evolution.

Business

In the business wireline market, traditional facilities-based competitors continue to compete on the basis of network footprint and reliability, while over-the-top (OTT) providers emphasize price, flexibility and ease of use. Having made significant investments in voice over IP (VoIP), security and information technology (IT) services for business, cable-based competitors are using price discounting to drive new customer acquisition and retention. In addition, larger cloud service providers, such Amazon and Microsoft, leverage global scale to deliver low-cost data storage and cloud computing services, but lack the depth and breadth of capabilities to deliver integrated solutions, as well as the local implementation and adoption support required for customers to realize the full values of their investments in managed IT and security services. Rapidly advancing technologies, such as software-defined networks and virtualized network functions, enable the layering of new services in cloud-centric solutions. Evolving customer needs represent both a growth opportunity and a risk to TELUS' legacy voice and data revenue, as businesses seek to migrate fixed local line, long distance and/or voicemail services to the new cloud-centric market paradigm.

Consumer

In the consumer wireline market, cable-TV companies and other competitors continue to combine a mix of residential local VoIP, long distance, 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. In 2016, Shaw Communications, our primary cable competitor in Alberta and B.C. launched new Internet and bundled promotional offers at deeply discounted prices and in early 2017 they started to roll out BlueSky TV, their next generation TV service, licensing an existing platform developed by Comcast, a U.S.-based cable company. In addition, Canadian cable competitors continue to increase the speed of their HSIA offerings and their roll-

out of Wi-Fi services in metropolitan areas. To a lesser extent, other non-facilities-based competitors offer local and long distance VoIP services over the Internet and resell HSIA solutions. Technological innovation has resulted in a dramatic improvement in the performance and speed of satellite-based Internet access services and significantly enhanced their competiveness. Xplornet recently launched a high-throughput low orbit 4G broadband satellite, allowing it to provide high speed Internet access services with speeds and performance comparable to or better than available wireline Internet access service. Erosion of our residential network access lines (NALs) is expected to continue due to this competition and ongoing technological substitution to wireless and VoIP. Legacy voice revenues are also expected to continue to decline. It is expected that competition in the consumer space will remain intense.

Risk mitigation: To improve our competitive position, we are making significant investments in our wireline broadband infrastructure, including connecting more homes and businesses directly to our gigabit-capable fibre-optic network. These investments meet customer demand for faster Internet service, including symmetrical download and upload speeds, expand the coverage of our high-speed Internet service and extend the coverage, capability and content lineup of our IP-based Optik TV service in B.C., Alberta and Eastern Quebec (see *Broadcasting* below). Additionally, our fibre-optic investments extend the reach and functionality of our business and healthcare solutions and will support a more efficient and timely evolution to a converged 5G network.

The provision of Optik TV service and service bundles helps us attract and pull through Internet subscriptions and mitigate residential NAL losses. TELUS Satellite TV service in Alberta and B.C., made possible through an agreement with Bell Canada, complements our expanding IP TV service footprint and enables us to serve households where our IP TV service is not currently available. We also continue to invest in other product development initiatives, including connected home capabilities and consumer health solutions. We also continue to enhance our Optik TV content capabilities through greater choice and flexibility by offering specific channel theme packs and on an individual basis, as well as

embracing OTT solutions and facilitating those services directly through the set-top box and enabling ultra-high definition 4K content.

We continue to add to our capabilities in the business market through prudent product development initiatives, a combination of acquisitions and partnerships, a focus on key vertical markets (public sector, healthcare, financial services, energy and telecommunications wholesale) and expansion of solution sets in the enterprise market, as well as our modular approach in the SMB market (including services such as TELUS Business Connect) and Internet of Things (IoT) solutions. Through TELUS Health, we have leveraged our systems and proprietary solutions to extend our footprint in healthcare and benefit from the investments in eHealth being made by governments. Additionally, through our business process outsourcing services, we enable customer experience innovation to help our customers realize efficiencies and cost savings in their operations.

Technological substitution may adversely affect market share, volume and pricing

We face technological substitution across all key business lines and market segments, including the consumer, small and medium-sized business (SMB) and large enterprise markets.

Technological advances have blurred the boundaries between broadcasting, Internet and telecommunications. (See *Section 10.3 Technology*.) Wireless carriers and cable-TV companies continue to expand their offerings and launch next generation TV platforms, resulting in intensified competition for high-speed Internet services in residential and certain SMB markets, as well as for TV services and local access and long-distance. OTT services such as Netflix compete for share of viewership, which may accelerate the disconnection of TV services or affect subscriber and revenue growth in our TV and entertainment services. Wireless voice ARPU continues to decline as a result of, among other factors, substitution to messaging and OTT applications. We expect industry pressure from customer acquisition efforts and content distribution, costs and pricing to continue across most product and service categories and market segments.

Risk mitigation: Our IP TV and OTT multimedia initiatives provide the next generation of IP TV, but importantly tie our OTT environment to one platform, enabling TELUS to be agile in the delivery of OTT services. They also facilitate cloud-based media delivery and ultimately everything on demand, on any device, on any network. Active monitoring of competitive developments and internal prototyping in product and geographic markets enable us to respond rapidly to competitor offers and leverage our full suite of integrated wireless and wireline solutions and national reach, and we also monitor global telecom carriers for their next-generation OTT offers. To mitigate losses in legacy services in our incumbent areas of B.C., Alberta and Eastern Quebec, investments are being made in our broadband networks, including our fibre-optic network, in order to increase speeds, improve network reliability, expand our reach and provide an industry-leading customer experience. We also continue to enhance and introduce innovative products and services, such as enabling ultra-high definition 4K content, integrated bundled offers across our services and invest in customer-focused initiatives to improve our customers' experience. The adoption of new technologies and products is pursued to improve the efficiency of our service offerings.

Broadcasting

We offer Optik TV service to more than 2.9 million households and businesses in B.C., Alberta and Eastern Quebec, and we continue targeted roll-outs in new areas. TELUS TV provides numerous interactivity and customization advantages over cable-TV and we have achieved significant market share with more than 1.0 million TV subscribers at

December 31, 2016. However, there can be no assurance that subscriber growth rates will be maintained, or that we will achieve planned revenue growth and greater operating efficiency, in the context of a high level of industry market penetration, a declining overall market for paid-TV services and actions by our competitors and content suppliers. In addition, competition from OTT services could also affect subscriber and revenue growth by accelerating the disconnection of TV services or reducing spending on those services.

Risk mitigation: We have broadened the addressable market for our Optik TV service through the deployment of advanced broadband technologies, including the continued expansion of our fibre-optic network to homes and businesses in communities across B.C., Alberta and Eastern Quebec. We continue to introduce new features and capabilities to our TV services, including third-party OTT offerings, and to strengthen our leadership position in Western Canada in the number of high-definition linear channels, video-on-demand services and ultra-high definition 4K content.

Vertical integration into broadcast content ownership by competitors

We are not currently seeking to be a broadcast content owner, but some of our competitors own and continue to acquire broadcast content assets. Greater vertical integration could result in content being withheld from us or being made available to us at inflated prices or on unattractive terms.

Risk mitigation: Our strategy is to aggregate, integrate and make accessible content and applications for our customers' enjoyment, on a timely basis across multiple devices. We do not believe it is necessary to own content in order to make it accessible to customers on an economically attractive basis, provided there is timely and strict enforcement of the CRTC's regulatory vertical integration safeguards to prevent abusive practices by vertically integrated competitors.

We support a regime under the *Broadcasting Act* that ensures all Canadian consumers continue to have equitable access to broadcast content irrespective of the distributor or platform they choose. We continue to advocate for the timely and strict enforcement of the CRTC vertical integration safeguards and for further meaningful safeguards, as required. We also actively intervene in broadcast licence renewals of vertically integrated competitors. (See *Examination of differential pricing practices* and *Enforcement of vertical integration framework* in *Section 9.4*

Telecommunications industry regulatory developments and proceedings.)

10.3 Technology

Technology is a key enabler of our business, however, its evolution brings risks and uncertainties, as well as opportunities. We maintain short-term and long-term strategies to optimize our selection and timely use of technology, while minimizing the associated costs, risks and uncertainties. Following are the main technology risks and uncertainties for TELUS and a description of how we proactively address them.

High demand for data challenges wireless networks and may be accompanied by increases in delivery cost

The demand for wireless data services continues to grow rapidly, driven by greater broadband penetration, growing personal connectivity and networking, increasing affordability and selection of smartphones and high-usage data devices, richer multimedia services and applications, IoT services (including machine-to-machine (M2M) data applications and other wearable technology), growth in cloud-based services and wireless price competition. Given the highly competitive wireless market in Canada, we expect that wireless data revenues will grow more slowly than demand for bandwidth. For example, according to the CRTC Communications Monitoring Report 2016, data traffic over mobile wireless networks increased by 44% in 2015, while the CRTC's measure of retail wireless data revenue increased by only 16% in 2015. Rising data traffic levels and the fast pace of data device innovation present challenges to providing adequate capacity and maintaining high service levels.

***Risk mitigation*:** Our ongoing investments in our 4G LTE network, including LTE advanced technology, as well as foundational investments in early 5G capabilities, allow us to manage data capacity demands by more effectively utilizing the spectrum we hold. We intend to implement further standards-based technologies that are ready for commercial deployment to these networks in order to provide higher-performance connectivity solutions. In addition, the evolution to LTE advanced technologies is supported by our investments in IP networks, IP/fibre backhaul to cell sites, including our small cells, and a software-upgradeable radio infrastructure. The LTE advanced expansion is expected to further increase network capacity and speed, reduce delivery costs per megabyte, enable richer multimedia applications and services, and deliver a superior subscriber experience. LTE advanced technologies are currently deployed only in urban areas.

Mobile network infrastructure investment will increasingly be directed to systems based on network function virtualization (NFV) that offer greater capacity for computing and storage, higher resiliency, and more flexible software design. Our large-scale move to national, geographically distributed data centres that use generalized commercial off-the-shelf computing and storage solutions enables the utilization of broad-scale NFV and software-defined network technologies, which will allow us to virtualize much of our infrastructure and will also facilitate a common control plane for coordination of our virtualized and non-virtualized network assets.

Rapid growth of wireless data volumes requires optimal and efficient utilization of our spectrum holdings, which have more than doubled through our 2014 and 2015 purchases of 700 MHz, AWS-3 and 2500 MHz spectrum licences and provide added capacity to mitigate risks from growing data traffic. We began deploying 700 MHz and 2500 MHz spectrum holdings and we plan to utilize other spectrum licences purchased in recent years in combination with unlicensed supplementary spectrum, as network and device ecosystems evolve. The spectrum licences previously used for our CDMA network are being repurposed for use with LTE technology. Our public Wi-Fi service integrates seamlessly with our 4G network and offloads data traffic from our wireless spectrum to increasingly available Wi-Fi hotspots. Our deployment of small cell technology further increases the efficient utilization of our spectrum holdings.

Roll-out and evolution of wireless broadband technologies and systems

As part of a natural 4G network progression, we are committed to LTE advanced, LTE and HSPA+ technology to support medium-term and long-term growth of mobile broadband services. Our business depends on the deployment of wireless technology. We began a staged decommissioning of our iDEN network in 2016, while continuing to support our Mike® private network customers and actively migrate their services to our HSPA and LTE networks in order to minimize retention risk. The repurposing of spectrum holdings must be managed appropriately to ensure optimal use of capital and resources. Overall, as wireless broadband technologies and systems evolve, there is the risk that our future capital expenditures may be higher as our ongoing technology investments could involve costs higher than those recorded historically.

***Risk mitigation*:** Our practice is to continually optimize capital investments in order to ensure reasonable payback periods for generating positive cash flows from investments and flexibility in considering future technology evolutions. Some capital investments, such as wireless towers, leasehold improvements and power systems, are technology-neutral.

Our wireless networks evolve through software upgrades to support enhancements in systems based on the third generation partnership project (a project that unites seven telecommunications standard development organizations and provides their members with a stable environment to produce the reports and specifications that define "third generation partnership" technologies) and the Institute of Electrical and Electronics Engineers that improve performance, capacity and speed. We expect to be able to leverage the economies of scale and handset variety of the North American and global ecosystems.

Reciprocal network access agreements, principally with Bell Canada, have facilitated our deployment of wireless technologies and provided the means for us to better manage our capital expenditures. These agreements are expected to provide ongoing cost savings beyond the initial network build, as well as the flexibility to invest in service differentiation and support systems.

We maintain close co-operation with our network technology suppliers and operator partners in order to influence and benefit from developments in LTE advanced, LTE, HSPA+ and Wi-Fi technologies.

Disruptive technology

A paradigm shift with the consumer adoption of alternative technologies, such as video and voice OTT offerings (e.g. Netflix, FaceTime) and increasingly available Wi-Fi networks, has the potential to negatively affect TELUS revenue streams. For example, Wi-Fi networks are being used to deliver various entertainment services to customers beyond the home. OTT content providers are now competing for share of entertainment viewership. These factors, including increasing consumer demand for access to Wi-Fi outside of their home, and OTT services on demand, on any device, may drive increased churn rates for our wireless, TELUS TV and high-speed Internet services. (See *Intense wireless competition is expected to continue* in *Section 10.2 Competition* and *OTT services present challenges to network capacity and conventional business models below*.)

***Risk mitigation*:** Since early 2014, we have worked with thousands of businesses and many major sports and entertainment venues to continue to expand our public Wi-Fi network. This public Wi-Fi service is part of our network strategy of deploying small cells that integrate seamlessly with our 4G wireless network, automatically shifting our smartphone customers to Wi-Fi and offloading data traffic from our wireless spectrum. Integrated public Wi-Fi infrastructure build activity naturally extends service and channel opportunities with small-medium enterprises and improves customers' likelihood-to-recommend. Integration of home Wi-Fi increases propensity for higher data usage on smartphones within and outside the home, while benefiting, in part, uptake of TELUS Internet service.

Supplier risks

Restructuring of vendors or discontinuance of products may affect our networks and services

We have relationships with a number of vendors, which are important in supporting network and service evolution plans and delivery of services to our customers. Vendors may experience business difficulties, restructure their operations, be consolidated with other suppliers, discontinue products or sell their operations or products to other vendors, which could affect the future development and support of products or services we use, and ultimately, the success of upgrades and evolution of technology that we offer our customers, such as TELUS TV. There can be no guarantee that the outcome of any particular vendor strategy will not affect the services that we provide to our customers, or that we will not incur additional costs to continue providing services. Certain customer needs and preferences may not be aligned with our vendor selection or product and service offering, which may result in limitations on growth or loss of existing business.

Supplier concentration and market power

The popularity of certain models of smartphones and tablets has resulted in a growing reliance on certain manufacturers, which may increase their market power and adversely affect our ability to purchase certain products at an affordable cost. In addition, owners of popular broadcasting content may raise their distribution charges and attempt to renegotiate broadcasting distribution agreements we have with them, which could adversely affect our entertainment service offerings and/or profitability. See also *Wireline* in *Section 9.2, Broadcasting- related issues* in *Section 9.4* and *Vertical integration into broadcast content ownership by competitors* in *Section 10.2*.

***Risk mitigation*:** We consider possible vendor strategies and/or restructuring outcomes when planning for our future growth, as well as the maintenance and support of existing equipment and services. We have reasonable contingency plans for different scenarios, including working with multiple vendors, maintaining ongoing strong vendor relations and working closely with other product users to influence vendors' product development plans. In addition, we regularly monitor the risk profile of our key vendors and audit the applicable terms and conditions of our agreements.

In respect of supplier market power, we offer and promote alternative devices or programming content to provide greater choice for consumers and to help lessen our dependence on a few key suppliers.

Support systems will be increasingly critical to operational efficiency

We have a large number of interconnected operational and business support systems, and their complexity has been continually increasing, which can affect system stability and availability. The development and launch of a new service typically requires significant systems development and integration efforts. Effective management of all associated development and ongoing operational costs is a significant factor in maintaining a competitive position and profit margins. As next-generation services are introduced, they must work with next-generation systems, frameworks and IT infrastructures, while being compatible with legacy services and support systems. There can be no assurance that any of our proposed IT systems or process change initiatives will be implemented successfully, that they will be implemented in accordance with anticipated timelines, or that sufficiently skilled personnel will be available to complete such initiatives. If we fail to implement and maintain appropriate IT systems on a timely basis, fail to create and maintain an effective governance and operating framework to support the management of staff, or fail to understand and streamline our significant number of legacy systems and proactively meet constantly evolving business requirements, any such failure could have an adverse effect on our business and financial performance.

Risk mitigation: In line with industry best practice, our approach is to separate business support systems (BSS) from operational support systems (OSS) and underlying network technology. Our aim is to decouple the introduction of new network technologies from the services we sell to customers so that both can evolve independently. This allows us to optimize network investments while limiting the impact on customer services, and also facilitates the introduction of new services. In addition, due to the maturing nature of telecommunications vendor software, we adopt industry standard software for BSS/OSS functions and avoid custom development where possible. This enables us to leverage vendor

knowledge and industry practices acquired through the implementation of those platforms at numerous global telecommunications companies. We have established a next-generation BSS/OSS framework to ensure that, as new services and technologies are developed, they are part of the next-generation framework that will ease the retirement of legacy systems in accordance with TeleManagement Forum's next-generation operations systems and software program. We also continue to make significant investments in system resiliency and reliability in support of our ongoing customers first initiatives.

Evolving wired broadband access technology standards may outpace projected access infrastructure investment lifetimes

The technology standards for broadband access over copper loops to customer premises are evolving rapidly, enabling higher broadband access speeds. The evolution is fuelled by consumer demand for faster connectivity, the need to address growing competitor capabilities and offerings, the increasing use of OTT applications and the delivery of IP TV, all of which require greater bandwidth. In general, the evolution to higher broadband access speeds is achieved by deploying fibre-optic cable further out from the central office, thus shortening the copper loop portion of the access network, and by using faster modem technologies on the shortened copper loop. However, new access technologies are evolving faster than the historical investment cycle for access infrastructure. The introduction of these new technologies and the pace of adoption could result in requirements for additional capital funding not currently planned, as well as shorter estimated useful lives for certain existing infrastructure, which would increase depreciation and amortization expenses.

Risk mitigation: To advance our broadband network, we are actively deploying fibre-to-the-premises (FTTP) technologies, including major roll-outs in the cities of Edmonton and Vancouver. FTTP technology supports significantly greater bandwidth, including symmetrical download and upload speeds. We also continue to invest in our fibre-to-the-neighbourhood (FTTN) technology in order to maintain our ability to support competitive services — most recently, the upgrade to VDSL2 and bonding technologies.

In addition, we actively monitor the development and carrier acceptance of competing proposed FTTx standards (such as FTTP and fibre-to-the-distribution point or FTTDp). One or more of these fibre-based solutions may be a more practical technology to deploy in brownfield neighbourhoods or multiple dwelling units than the current xDSL deployments on copper loops. We are exploring business models for financially viable deployment of fibre-based technologies in areas currently connected by copper.

The evolution of these access architectures and corresponding standards, enabled with quality of service standards and network traffic engineering, all support our strategy to deliver IP-based Internet, voice and video services over a common broadband access infrastructure.

IP-based telephony as a replacement for legacy analogue telephony is evolving and cost savings are uncertain

We continue to monitor the evolution of IP-based telephony technologies and service offerings, and we have developed a consumer solution for IP-based telephony through access to our broadband infrastructure. This solution is being deployed and is replacing legacy analogue telephone service in areas that are served by fibre-based facilities. The solution can be expanded to provide additional telephone services over the existing analogue service infrastructure and is designed to replace the current platform in use today. We are also in the process of deploying our next-generation IP telephony solution for business users, which is intended to replace existing business VoIP platforms, as well as addressing areas that are served through fibre access. We are deploying converged IP solutions in the consumer segment that deliver telephony, video and Internet access on the same broadband infrastructure. However, the exchange of information between service providers with different broadband infrastructures is still at an early stage.

Our long-term technology strategy is to move all services to IP to simplify our network, reduce costs, enable advanced solutions and converge wireless and wireline services. Pursuing this strategy fully would involve transitioning our standard telephone service offering to IP-based telephony and phasing out legacy analogue-based telephone service. We could support this strategy by discontinuing regular analogue telephone lines and using digital-only broadband access lines. However, digital-only broadband access may not be feasible or financially viable in many areas for some time, particularly in rural and remote areas. Accordingly, we expect to support both legacy and IP-based voice systems for some time and incur costs to maintain both systems. There is a risk that investments in IP-based voice systems may not be accompanied by a reduction in the costs of maintaining legacy voice systems. There is also the risk that IP-based access infrastructure and corresponding IP-based telephony platforms may not be in place in time to avoid the need for some reinvestment in traditional switching platforms to support the legacy public switched telephone network access base in certain areas, which could result in some investment in line adaptation in non-broadband central offices.

Risk mitigation: We continue to deploy residential IP-based voice technologies into fibre-based communities, and we work with vendors and the industry to assess the technical applicability and evolving cost profiles of proactively migrating legacy customers onto IP-based platforms while striving to meet CRTC commitments and customer expectations. Our ongoing investments in advanced broadband network technologies, including FTTP, should enable a smoother future evolution of IP-based telephony. We are also working with manufacturers to optimize the operations, cost structure and life expectancy of analogue systems and solutions so that some of this infrastructure can be adapted to a point where it will form part of the overall evolution towards IP. Additionally, IP-based solutions that we are currently deploying are capable of supporting a wide range of customers and services, which helps limit our exposure to any one market segment. Going forward, as our wireless services evolve, we will continue to assess the opportunity to further consolidate separate technologies into a single voice service environment. One example is the consolidation of our new IP-based consumer VoIP solution into the same platform that supports wireless telephony. We are looking at opportunities to rationalize our existing legacy voice infrastructure in order to manage costs. We are also working with our vendors and partners to reduce the cost structure of VoIP deployments.

Convergence in a common IP-based application environment for telephony, Internet and video is complex

The convergence of wireless and wireline services in a common IP-based application environment, delivered over a common IP-based network,

provides opportunities for cost savings and for the rapid development of more advanced services that are also more flexible and easier to use. However, the transformation from separate systems to a common environment is very complex and could be accompanied by implementation errors, design issues and system instability.

Risk mitigation: We mitigate implementation risk through modular architectures, lab investments, employee trials, partnering with system integrators where appropriate, using hardware that is common to most other North American IP-based technology deployments and introducing virtualization technologies, where feasible. We are also active in a number of standards bodies, such as the Metro Ethernet Forum and IP Sphere, in order to help influence a new IP infrastructure strategy that leverages standards-based functionality, which could further simplify our networks.

Delivery of fibre-based facilities leveraged by IP telephony solutions is expensive and complex, with long implementation schedules

The delivery of fibre-based facilities to new communities and regions requires significant investment and planning, as well as long implementation schedules. This may rule it out as a viable alternative in communities where the legacy voice equipment requires immediate replacement. It may not be cost-effective to deliver fibre-optic network access to customers who subscribe only to home phone services, which would prevent full migration away from legacy technologies.

Risk mitigation: We mitigate schedule risk by continuing to maintain our legacy switching environments and striving to maintain the necessary technological expertise, access to replacement hardware and regular maintenance programs. We support delivery of IP telephony through a copper-based access facility by deploying line access gateway technology that connects our customers' generic equipment with the IP telephony platforms, which gives us a more cost-effective way to provide those customers with the reliability and enhanced capabilities of these solutions.

OTT services present challenges to network capacity and conventional business models

OTT services are a category of services being delivered over the Internet that compete directly with traditional pay-TV, video and wireless and wireline voice and messaging services. OTT video services, in particular, have rapidly become the largest source of traffic on the North American Internet backbone. OTT service providers do not invest in, or own, networks and growth in their services presents Internet service providers (ISPs) and network owners with the challenge of preventing network congestion. While we have designed an IP-based network that has not experienced significant congestion problems through 2016, there can be no assurance that we will not experience such congestion in the future.

Risk mitigation: As additional OTT providers launch services and offer higher-resolution video over the Internet, we continue to make investments in our network to support greater capacity. We are also developing new responses, such as more flexible data plans, to the challenges posed by the OTT providers. These investments include the ongoing build-out of our fibre-optic network, including multi-year investments to connect homes and businesses in Vancouver and Edmonton to our gigabit-capable network.

Capital expenditure levels and potential future outlays for spectrum licences may be impacted by our operating and financial results, as well as our ability to carry out financing activities

Our capital expenditure levels are affected by our broadband initiatives, including connecting more homes and businesses directly to fibre; our ongoing deployment of newer wireless technologies such as 5G; utilizing newly acquired spectrum; investments in network resiliency and reliability; increasing subscriber demand for data; evolving systems and business processes; implementing efficiency initiatives; supporting large complex deals; and participation in future wireless spectrum auctions held by Innovation, Science and Economic Development Canada (ISED). There can be no assurance that investments in capital assets and wireless spectrum licences will not be affected by future operating and financial results.

***Risk mitigation*:** We carry out a number of unique initiatives each year that are aimed at improving our productivity and competitiveness. See *Reorganizations, integration of acquisitions and implementation of large enterprise deals* in *Section 10.6.* For a discussion of financing risks and risk mitigation activities, see *Section 10.7 Financing, debt requirements and returning cash to shareholders* .

10.4 Regulatory matters

The regulatory regime under which we operate, including the laws, regulations, and decisions in regulatory proceedings and court cases, reviews, appeals, policy announcements, and other developments such as those described in *Section 9.4 Telecommunications industry regulatory developments and proceedings*, imposes conditions on the products and services that we provide and how we provide them. The regulatory regime sets forth, among other matters, rates, terms and conditions for the provision of telecommunications services, licensing of broadcast services, licensing of spectrum and radio apparatus, and restrictions on ownership and control by non-Canadians.

Changes to our regulatory regime

Changes to the regulatory regime under which we operate, including changes to laws and regulations, could materially and adversely affect our business, results of operations, operating procedures and profitability. Such changes may not be anticipated or, where they are anticipated, our assessment of their impact on us and our business may not be accurate. While we are involved or intervene in proceedings, court cases or inquiries related to the application of the regulatory regime, such as those described in *Section 9.4 Telecommunications industry regulatory developments and proceedings,* there is no certainty that our current prediction of the likely outcomes of such proceedings will be accurate or that the positions that we advocate in such proceedings will be adopted. Changes to our regulatory regime could increase our costs, restrict or

impede the way we provide our services or manage our networks, or alter customer perceptions of our operations. The further regulation of broadband, wireless and our other activities and any related

regulatory decisions could also restrict our ability to compete in the marketplace and limit the return we can expect to achieve on past and future investments in our networks.

Risk mitigation: TELUS attempts to mitigate regulatory risks through its participation in CRTC and federal government proceedings, including filing evidence in ongoing reviews and participating in technical committees established by the CRTC, as described in *Section 9.4 Telecommunications industry regulatory developments and proceedings.* See also *Vertical integration into broadcast content ownership by competitors* in *Section 10.2 Competition*.

Spectrum and compliance with licences

We require access to radio spectrum to carry on our wireless business. The allocation and use of spectrum in Canada are governed by spectrum licences issued by, and radio authorization conditions set by, ISED. While we believe that we are substantially in compliance with our radio authorization conditions, there can be no assurance that we will be found to comply with all radio authorization conditions, or if we are found not to be compliant, that a waiver will be granted or that the costs to be incurred to achieve compliance will not be significant. Any failure to comply with the radio authorization conditions could result in the revocation of our licences and/or the imposition of fines. Our ability to provide competitive services, including by improving our current services and offering new services on a timely basis, is also dependent on our ability to obtain access to new spectrum licences as they are made available. The revocation of, or a material limitation on, certain of our spectrum licences, or our failure to obtain access to new spectrum as it becomes available, could have a material adverse effect on our business, results of operations and financial condition by, among other things, negatively affecting the quality of our network and service offering and thereby impeding our ability to attract or retain customers.

Risk mitigation: We continue to strive to comply with all licence and renewal conditions and plan to participate in future wireless spectrum auctions. We have advocated to the federal government for a level playing field in respect of spectrum auction rules, such that long-standing wireless companies like TELUS can bid on an equal footing with others for spectrum blocks available at auction or are able to purchase spectrum licences available for sale from competitors. Advanced wireless services (AWS) entrants are now part of established, sophisticated and well-financed cable companies and we will strongly advocate that preferential treatment is not required.

Restrictions on foreign ownership

We are subject to the foreign ownership and control restrictions, including restrictions on the ownership of our Common Shares by non-Canadians, imposed by the *Canadian Telecommunications Common Carrier Ownership and Control Regulations* and the *Telecommunications Act* (collectively, the Telecommunications Regulations) and the *Broadcasting Act* and associated regulations. Although we believe that we are in compliance with the relevant legislation, there can be no assurance that a future CRTC or Canadian Heritage determination, or events beyond our control, will not result in us ceasing to be in compliance with the relevant legislation. If such a development were to occur, the ability of our subsidiaries to operate as Canadian carriers under the *Telecommunications Act* or to maintain, renew or secure licences under the *Radiocommunication Act* and the *Broadcasting Act* could be jeopardized and our business could be materially adversely affected.

Specifically, to maintain our eligibility to operate certain of our subsidiaries that are deemed to be Canadian carriers under these laws, among other requirements, the level of non-Canadian ownership of TELUS Common Shares cannot exceed $33^{1}/_{3}$% and we must not otherwise be controlled by non-Canadians.

Risk mitigation: The Telecommunications Regulations give TELUS, which is a holding corporation of Canadian carriers, certain powers to monitor and control the level of non-Canadian ownership of our Common Shares. These powers have been incorporated into TELUS' Articles and were extended to ensure compliance under both the *Broadcasting Act* and the *Radiocommunication Act* (under which the requirements for Canadian ownership and control were subsequently cross-referenced to the *Telecommunications Act*). These powers include the right to: (i) refuse to register a transfer of Common Shares to a non-Canadian; (ii) require a non-Canadian to sell any Common Shares; and (iii) suspend the voting rights attached to the Common Shares held by non-Canadians in inverse order of registration. We have reasonable controls in place to monitor foreign ownership levels through a reservation and declaration system.

10.5 Human resources

Employee retention, recruitment and engagement

Our success depends on the abilities, experience and engagement of our team members. The loss of key employees through attrition and retirement — or any deterioration in overall employee morale and engagement resulting from organizational changes, unresolved collective agreements or ongoing cost

reduction initiatives — could have an adverse impact on our growth, business and profitability and our efforts to enhance the customer experience.

The level of employee engagement at TELUS continues to place our organization within the top quartile of all employers surveyed.

***Risk mitigation*:** We aim to attract and retain key employees through both monetary and non-monetary approaches, and we strive to protect and improve engagement levels. Our compensation and benefits program is designed to support our high-performance culture and is both market-driven and performance-based. We also have a succession planning process to identify and develop employees for key management positions.

Where required, we continue to implement targeted retention solutions for employees with talents that are scarce in the marketplace. As well, a benefits program is offered to team members that allows tailoring of personal health, wellness, lifestyle and retirement choices to suit individual and family needs.

We believe that our relatively strong employee engagement score continues to be influenced by our intense focus on the customer experience and our success in the marketplace. We plan to continue our focus on other non-monetary factors that are clearly aligned with engagement, including performance management, career opportunities, training and development, recognition and our work styles program (e.g. facilitating working remotely from home or other alternative work locations). See also *Section 10.10 Team member health, wellness and safety* .

10.6 Process risks

Systems and processes

We have numerous complex systems and process change initiatives underway. There can be no assurance that the full complement of our various systems and process change initiatives, including those required to improve delivery of customer services and support management decision-making, will be successfully implemented or that funding and sufficiently skilled resources will be available to complete all key initiatives planned. There is risk that certain projects may be deferred or cancelled and the expected benefits of such projects may be deferred or unrealized. Moreover, any ineffectiveness in the change management required to protect our complex systems and limit service disruptions could adversely impact our customer service, operating performance and financial results.

Risk mitigation: TELUS has change management policies, processes and controls in place, based upon industry best practices. In general, we strive to ensure that system development and process change are prioritized, and we apply a project management approach to such changes that includes reasonable risk identification and contingency planning, scope and change control, and resource and quality management. We also generally complete reasonable functional, performance and revenue assurance testing, as well as capturing and using any lessons learned. Where a change involves major system and process conversions, we often move our business continuity planning and emergency management operations centre to a heightened state of readiness in advance of the change.

Reorganizations, integration of acquisitions and implementation of large enterprise deals

We carry out a number of unique operational consolidation, cost reduction and rationalization initiatives each year that are aimed at improving our productivity and competitiveness. Examples of these initiatives are: our operating efficiency and effectiveness program to drive improvements in EBITDA, including the expected benefits of the immediately vesting transformative compensation initiative; business integrations; business process outsourcing; offshoring and reorganizations, including any full-time equivalent (FTE) employee reduction programs; procurement initiatives; and real estate rationalization. We may record significant cash and non-cash restructuring charges and other costs for such initiatives, which could adversely impact our operating results. There can be no assurance that all planned initiatives will be completed, or that such initiatives will provide the expected benefits or will not have a negative impact on our customer service, work processes, employee engagement, operating performance and financial results. Additional revenue and cost efficiency and effectiveness initiatives will continue to be assessed and implemented, as required.

Post-acquisition activities include the review and alignment of accounting policies, corporate policies such as ethics and privacy policies, employee transfers and moves, information systems integration, optimization of service offerings and establishment of control over new operations. Such activities may not be conducted efficiently and effectively, which may negatively impact service levels, competitive position and financial results. There can be no assurance that we will be able to successfully and efficiently integrate acquisitions, complete divestitures or establish partnerships in a timely manner, and realize expected strategic benefits. In respect of the transaction with BCE Inc. to acquire a portion of Manitoba Telecom Services, Inc.'s (MTS') postpaid wireless subscribers and dealers, as of February 9, 2017, BCE had not received the requisite approvals from the Competition Bureau and ISED.

Large enterprise deals may be characterized by the need to anticipate, understand and respond to complex and multi-faceted customer-specific enterprise requirements, including customized systems and reporting requirements,

service credits that lower revenues, and significant upfront expenses and capital expenditures required to implement the contracts. There can be no assurance that service implementation will proceed as planned and expected efficiencies will be achieved, which may impact return on investment or projected margins. We may also be constrained by limits on available staff and system resources and the level of co-operation from other service providers, which may in turn limit the number of large contracts that can be implemented concurrently in a given period and/or increase our costs related to such implementations.

Risk mitigation: We focus on and manage organizational changes through a formalized business transformation function by leveraging the expertise, key learnings and effective practices developed during the implementation of large enterprise deals, as well as mergers, business integrations and efficiency-related reorganizations, in recent years.

We have a post-merger integration (PMI) team that applies an integration model, based on learnings from previous integrations, which enhances and accelerates the standardization of our business processes and is intended to preserve the unique qualities of each acquired operation.

We have also gained experience during the implementation of numerous large enterprise deals over a number of years, and we expect to continue to focus on successfully implementing recent large enterprise contract wins, as well as on developing more shared systems and processes. We expect to continue being selective as to which new large contracts we will bid on and we continue to focus our efforts on the SMB market. We have a sales and bid governance process in place, which involves preparation, review and signoff of bids, with all of the related due diligence and authorizations.

We follow standard industry practices for project management, including executive/senior level governance and project oversight, commitment of appropriate project resources, tools and supporting processes, and proactive project-specific risk assessments and risk mitigation planning. We also conduct independent project reviews and internal audits to monitor progress and identify areas that may require additional focus, and to identify any systemic issues and learnings in project implementations that could be shared among other future projects.

During the year ended December 31, 2016, no significant acquisitions were completed.

Data protection

We operate data centres and collect and manage data in our business and on behalf of our customers (including, in the case of TELUS Health, sensitive health information). Some of our efficiency initiatives rely on the offshoring of internal functions to our personnel in other countries or outsourcing to partners located in Canada and abroad. To be effective, these arrangements require us to allow personnel in other countries and domestic and foreign partners to have access to this data.

TELUS or its partners may be subject to software, equipment or other system malfunctions, or thefts or other unlawful acts that result in the unauthorized access to, or change, loss or destruction of, our data. There is a risk that such malfunctions or unlawful acts may compromise the privacy of individuals, including our customers, employees and suppliers. Despite our efforts to implement controls in domestic and offshore operations and at our partners' operations, unauthorized access to data could lead to data being lost, compromised or used for inappropriate purposes that could, in turn, result in financial loss (loss of subscribers or damage to our ability to attract new ones), harm our brand and reputation, expose us to claims of damages by customers and employees, and impact our customers' ability to maintain normal business operations and deliver critical services. Also see *Legal and ethical compliance* in *Section 10.9 Litigation and legal matters* and *Security* in *Section 10.11 Human-caused and natural threats*.

Risk mitigation: Certain new TELUS information technology systems undergo a security and privacy assessment early in their development life cycle, pursuant to which data that is to be used and/or collected is reviewed and classified, and design features such as audit, logging, encryption and access control restrictions are recommended, when applicable or possible. As part of TELUS' systems and software development life cycle and quality assurance processes, privacy and security controls are also tested before new systems are fully deployed.

Our IDCs have security threat detection and mitigation capabilities, and certain data centres and networks undergo yearly external independent third-party audits. A core component of that audit and certification process is the assessment of TELUS' logical, physical and policy-based security and privacy controls. Further, we have a vulnerability management program in place that monitors both our Internet-facing and internal network and systems in order to track and mitigate vulnerabilities that may be detected.

To ensure the security of our customers' credit card transactions, we use security technologies such as encryption and segmentation, and we adhere to the principle of least privilege. We maintain these practices and review their effectiveness on a regular basis, giving consideration to industry standards and changes in the constantly evolving threat landscape.

Another component of our strategy is the stipulation that data generally resides in our facilities in Canada, with the deployment of infrastructure that supports partner connectivity to view our systems. We require partners and service

providers to comply with privacy and security measures, including the reporting of any possible data-related threats. Personnel in other countries are provided with remote views of authorized data only and, where applicable, without the data being stored on local systems. These personnel are also required to comply with physical and process restrictions and participate in training designed to help prevent and detect unauthorized access to, or use of, our data.

There can be no assurance that our controls will prove effective in all instances.

Foreign operations

Maintaining our international operations presents unique risks, including: competition in the business process outsourcing industry; ease with which customers can move their business if we fail to meet or exceed their expectations; infrastructure and security challenges; employee recruitment and retention; concentration of customers; country-specific risks (such as differences in political, legal and regulatory regimes and cultural values); different taxation regimes; differences in exposure to and frequency of natural disasters; and foreign currency exchange fluctuations. There can be no assurance that international initiatives and risk mitigation efforts will provide the benefits and efficiencies expected, or that there will not be significant difficulties in combining different management and cultures, which could have a negative impact on operating and financial results. See also *Legal and ethical compliance* in *Section 10.9 Litigation and legal matters* and *Natural Disasters and intentional threats to our infrastructure and business operations* in *Section 10.11 Human-caused and natural threats, which may affect our international*

operations.

Risk mitigation: Our strategy is to differentiate ourselves by focusing on the continued development of our team, as well as our culture of giving where we live. We also invest in service development and process improvements, and we regularly survey customers for feedback and monitor quality of service metrics to ensure we proactively address our customers' concerns and exceed their expectations. Our information technology systems undergo a security and privacy assessment early in their development life cycle, where privacy and security controls are tested before any new systems are deployed. We use security technologies and adhere to certain standards, reviewing their effectiveness regularly to remain abreast of changes in the threat landscape. We make significant investments in support of our team members, including high-end workplace facilities, competitive benefits, ongoing training and development and recurring surveys to resolve areas of concern. We maintain a diverse base of operations, with facilities located in the Philippines, Europe, Central America and the United States. This diversity provides us with an opportunity to minimize country-specific risks and the ability to serve customers in multiple languages and in multiple time zones. It also provides us with network redundancy and contingency planning opportunities and the ability to divert operations in emergency situations. We continue to work with our international operations to extend sound and effective operational practices, including the application of our privacy, ethics and anti-bribery policies, share best practices between international and domestic Canadian operations, as appropriate, and ensure that internal controls are implemented, tested, monitored and maintained. We also utilize foreign currency forward contracts, as well as hedge accounting on a limited basis, to mitigate currency risks (see *Currency risk* in *Section 7.9 Financial instruments, commitments and contingent liabilities*).

Real estate joint ventures (TELUS Garden and TELUS Sky)

Risks associated with our real estate joint ventures include possible construction-related cost overruns, financing risks, reputational risks and the uncertainty of future demand, especially during market downturns. There can be no assurance that the real estate joint ventures will be completed on budget or on time, or will obtain lease commitments as planned. Accordingly, we are exposed to the risk of loss on our investment and loan amounts, and a potential inability to service debt payments should a project's business plan not be successfully realized. Additionally, reputational risks arise from the possibility that we may be unable to meet our stated commitments and/or that the quality of the development may not be consistent with TELUS brand expectations.

Risk mitigation: We have established joint ventures with partners experienced in large commercial and residential real estate projects to develop TELUS Garden (Westbank) in Vancouver and TELUS Sky (Westbank and Allied REIT) in Calgary. The TELUS Garden residential condominium project was substantially pre-sold prior to the commencement of construction, and the majority of residential condominium units were transferred to the purchasers by the end of 2016. At the same time, lease commitments for the TELUS Garden office project represented 99% of leasable space, while the retail space within the TELUS Garden residential project was 99% leased.

For projects in progress, budget-overrun risks have been mitigated with fixed-price supply contracts (89% of TELUS Sky has had tenders approved and contracts awarded), expert project management oversight and insurance for certain risks. Costs for TELUS Sky continue to be consistent with the approved budget plan and we are applying the knowledge and experience gained on the TELUS Garden project to streamline and improve the cost-effectiveness of TELUS Sky.

In response to the current economic conditions in Calgary, the TELUS Sky partnership has taken a number of steps to better position the development for success, including: moving to a single-phase occupancy to delay the start dates of any potential office leases from the first quarter of 2018 to the fourth quarter of 2018; revising revenue projections and adjusting tenant inducements to align with current market expectations; and evaluating various approaches to adjusting

the mix between office and residential, as well as creating a wider range of residential offerings to address current market demand.

10.7 Financing, debt requirements and returning cash to shareholders

Our business plans and growth could be negatively affected if existing financing is not sufficient to cover funding requirements

Risk factors, such as disruptions in capital markets, regulatory requirements for an increase in bank capitalization, a reduction in lending activity in general, or a reduction in the number of Canadian chartered banks as a result of reduced activity or consolidation, could reduce the availability of capital or increase the cost of such capital for investment grade corporate issuers, such as TELUS. External capital market conditions could potentially affect our ability to make strategic investments and meet ongoing capital funding requirements.

Risk mitigation: We may finance future capital requirements with internally generated funds, borrowings under the unutilized portion of our bank credit facility, use of securitized trade receivables, use of commercial paper and/or the issuance of debt or equity securities. We have a shelf prospectus in effect until April 2018, under which we can offer up to $2.2 billion of debt or equity securities as of the date of this MD&A. We believe that our investment grade credit ratings, coupled with our efforts to maintain a constructive relationship with banks, investors and credit rating agencies, continue to provide reasonable access to capital markets.

To enable us to meet our financial objective of generally maintaining $1 billion of available liquidity, we have a $2.25 billion credit facility that expires on May 31, 2021 ($1.6 billion available at December 31, 2016), as well as availability under other bank credit facilities (see *Section 7.6 Credit facilities*). In addition, TELUS Communications Inc. (TCI) has an agreement with an arm's-length securitization trust under which it is able to sell an interest in certain of its trade receivables up to a maximum of $500 million, of which $400 million was available at December 31, 2016 (see *Section 7.7 Sale of trade receivables*).

Ability to refinance maturing debt

At December 31, 2016, our long-term debt was $13 billion, with maturities in certain years from 2017 to 2046 (see the *Long-term debt principal*

maturities chart in *Section 4.3*). We operate a commercial paper program (maximum of $1.4 billion) that currently permits access to low-cost funding. At December 31, 2016, we had $613 million of commercial paper outstanding, all of which was denominated in U.S. dollars (U.S.$465 million). When we issue commercial paper, it must be refinanced on an ongoing basis in order to realize the cost savings relative to borrowing on the $2.25 billion credit facility. Capital market conditions may prohibit the roll-over of commercial paper at low rates.

***Risk mitigation*:** We completed a number of debt transactions in 2015 and 2016 (see *Section 7.4*). As a result, the average term to maturity of our long-term debt (excluding commercial paper and the revolving component of the TELUS International credit facility) was 10.4 years at December 31, 2016 (11.1 years at December 31, 2015). Foreign currency forward contracts are used to manage currency risk arising from issuing commercial paper and long-term debt denominated in U.S. dollars (excluding the TELUS International credit facility). Our commercial paper program is fully backstopped by our $2.25 billion credit facility.

A reduction in TELUS credit ratings could affect our cost of capital and access to capital

Our cost of capital could increase and our access to capital could be affected by a reduction in the credit ratings of TELUS and/or TCI. There can be no assurance that we will maintain or improve current credit ratings.

Risk mitigation: 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. We have financial policies in place that are reviewed annually and are intended to help maintain our existing investment grade credit ratings in the range of BBB+ or the equivalent. The four credit rating agencies that rate TELUS currently have ratings that are in line with this target. A reduction in our ratings, from the current BBB+ or equivalent to BBB, could result in a modest increase in our funding cost but would not be expected to impact our ability to access the public debt markets. Access to our $2.25 billion credit facility would be maintained, even if our ratings were reduced to below BBB+.

Lower than planned free cash flow could constrain our ability to invest in operations, reduce debt or maintain multi-year dividend growth and share purchase programs

While future free cash flow and sources of capital are expected to be sufficient to meet current requirements, our intention to return capital to shareholders could constrain our ability to invest in our operations for future growth. Funding of future spectrum licence purchases, funding of defined benefit pension plans and any increases in corporate income tax rates will reduce the after-tax cash flow otherwise available to return as capital to our shareholders. Should actual results differ from our expectations, there can be no assurance that we will not change our financing plans, including our intention to pay dividends according to our payout policy guideline and to maintain our dividend growth program. Our multi-year share purchase program may also be affected by our Board's assessment

from time to time of various factors, including our financial position and outlook, and the market price of our Common Shares. For further detail on our multi-year dividend growth program and multi-year NCIB program, see *Section 4.3 Liquidity and capital resources*.

Risk mitigation: Our Board of Directors reviews the dividend each quarter, based on a number of factors, including our financial position and outlook.

Financial instruments

Our financial instruments, and the nature of credit risks, liquidity risks and market risks that they may be subject to, are described in *Section 7.9 Financial instruments, commitments and contingent liabilities*.

10.8 Taxation matters

We are subject to the risk that income and commodity tax amounts, including tax expense, may be materially different than anticipated, and a general tendency by tax collection authorities to adopt more aggressive auditing practices could adversely affect our financial condition and operating results

We collect and pay significant amounts of commodity taxes, such as goods and services taxes, harmonized sales taxes, provincial sales taxes, sales and use taxes and value-added taxes, to various tax authorities. As our operations are complex and the related tax interpretations, regulations, legislation and jurisprudence that pertain to our activities are subject to continual change and evolving interpretation, the final outcome of the taxation of many transactions is uncertain. Moreover, the implementation of new legislation in itself has its own complexities, including those of execution where multiple systems are involved, and interpretation of new rules as they apply to specific transactions, products and services.

We have significant current and deferred income tax liabilities, income tax expenses and cash tax payments. Income tax amounts are based on our estimates, using accounting principles that recognize the benefit of income tax positions only when it is more likely than not that the ultimate determination of the tax treatment of a position will result in the related benefit being realized. The assessment of the likelihood and amount of income tax benefits, as well as the timing of realization of such amounts, can materially affect the determination of Net income or cash flows. We expect the income taxes computed at applicable statutory rates to range between 26.4% and 26.9% in 2017. These expectations can change as a result of changes in interpretations, regulations, legislation or jurisprudence.

The timing concerning the monetization of deferred income tax accounts is uncertain, as it is dependent on our future earnings and other events. The amounts of deferred income tax liabilities are also uncertain, as the amounts are based upon substantively enacted future income tax rates that were in effect at the time, which can be changed by tax authorities. The amounts of cash tax payments and current and deferred income tax liabilities are also based upon our anticipated mix of revenues among the jurisdictions in which we operate, which is also subject to

change.

The audit and review activities of tax authorities affect the ultimate determination of the actual amounts of commodity taxes payable or receivable, income taxes payable or receivable, deferred income tax liabilities, taxes on certain items included within capital and income tax expense. Therefore, there can be no assurance that taxes will be payable as anticipated and/or that the amount and timing of receipt or use of the tax-related assets will be as currently expected.

TELUS International operates in certain foreign jurisdictions, including the United States, the United Kingdom, the Philippines, Guatemala, El Salvador, Barbados, Romania and Bulgaria, which increases our exposure to multiple forms of taxation.

Generally, each jurisdiction has taxation peculiarities in the forms of taxation imposed (e.g. value-added tax, gross receipts tax, stamp and transfer tax, and income tax), legislation and tax treaties, where applicable, as well as currency and language differences. In addition, the telecommunications industry faces unique issues that lead to uncertainty in the application of tax laws and the division of tax between domestic and foreign jurisdictions. Furthermore, there has been a more intense political, media and tax authority focus on taxation, with an intent to enhance tax transparency and to address perceived tax abuses. Accordingly, our activities may increase our exposure to tax risks, from both a financial and a reputational perspective.

Risk mitigation: We follow a comprehensive tax conduct and risk management policy that was adopted by our Board. This policy outlines the principles underlying and guiding the roles of team members, their responsibilities and personal conduct, the method of conducting business in relation to tax law and the approaches to working relationships with external tax authorities and external advisors. This policy recognizes the requirement to comply with all relevant tax laws. The components necessary for the effective control and mitigation of tax risk are outlined in the policy, as is the delegation of authority to management on tax matters in accordance with Board and Audit Committee communication guidelines.

In giving effect to this policy, we maintain an internal Taxation department composed of professionals who stay current on domestic and foreign tax obligations, supplemented where appropriate with external advisors. This team reviews systems and process changes for compliance with applicable domestic and international taxation laws and regulations. Its members are also responsible for the specialized accounting required for income taxes.

Material transactions are reviewed by our Taxation department so that transactions of an unusual or non-recurring nature are assessed from multiple risk-based perspectives. Tax-related transaction risks are regularly communicated to, and reassessed by, our Taxation department as a check to initial exposure assessments. As a matter of regular practice, large transactions are reviewed by external tax advisors, while other third-party advisors may also be engaged to express their views as to the potential for tax liability. We continue to review and monitor our activities so that we can take action to comply with any related regulatory, legal and tax obligations. In some cases, we also engage external advisors to review TELUS' systems and processes for tax-related compliance. The advice and returns provided by such advisors and counsel are reviewed for reasonableness by our internal Taxation team.

10.9 Litigation and legal matters

Investigations, claims and lawsuits

Given TELUS' size, investigations, claims and lawsuits seeking damages and other relief are regularly threatened or pending against us. It is not currently possible for us to predict the outcome of such matters due to various factors, including: the preliminary nature of some claims; unproven damage theories and demands; incomplete factual records; the uncertain nature of legal theories and procedures and their resolution by the courts, at both the trial and the appellate levels; and the unpredictable nature of opposing parties and their demands. There can be no assurance that financial or operating results will not be negatively impacted by any of these factors.

Subject to the foregoing limitations, management is of the opinion, based upon legal assessments and the 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, excepting the items disclosed herein and in *Note 29(a)* of the Consolidated financial statements.

Risk mitigation: We believe that we have in place reasonable policies and processes designed to enable compliance with legal and contractual obligations and reduce our exposure to, and the effect on us of, legal claims. We also maintain a team of legal professionals who advise on and manage risks related to claims and possible claims. See other risk mitigation steps discussed below.

Class actions

We are defendant in a number of certified and uncertified class actions. Over the past decade or more, we have observed a willingness on the part of claimants to launch class actions whereby a representative plaintiff seeks to pursue a legal claim on behalf of a large group of persons. The number of class actions filed against us has varied from year to year, with claimants continually looking to expand the matters in respect of which they file class actions. The adoption by governments of increasingly stringent consumer protection legislation may increase the number of class actions by creating new causes of action, or may decrease the number of class actions by improving clarity in the area of consumer marketing and contracting. A successful class action lawsuit, by its nature, could result in a sizable damage award that could negatively affect a defendant's financial or operating results. Certified and uncertified class actions against us are detailed in *Note 29(a)* of the Consolidated financial statements.

Assessment of class actions

We believe that we have good defences to each of these certified and uncertified class actions. Should the ultimate resolution of these actions

differ from management's assessments and assumptions, a material adjustment to our financial position and the results of our operations could result. Management's assessments and assumptions include that reliable estimates of the exposure cannot be made for the majority of these class actions, considering continued uncertainty relating to the causes of action that may ultimately be pursued by the plaintiffs and certified by the courts and the nature of the damages that may be sought by the plaintiffs.

Risk mitigation: We are vigorously defending each of the class actions brought against TELUS or pursuing settlements that we deem to be beneficial for us. This includes opposing certification of uncertified class actions. Certification is a procedural step that determines whether a particular lawsuit may be prosecuted by a representative plaintiff on behalf of a class of individuals. Certification of a class action does not determine the merits of the claim, so that, if we were unsuccessful in defeating certification, the plaintiffs would still be required to prove the merits of their claims. We regularly assess our business practices and actively monitor class action developments in Canada and the United States in order to identify and minimize the risk of further class actions against us.

Civil liability in the secondary market

Like other Canadian public companies, we are subject to civil liability for misrepresentations in written disclosure and oral statements, and liability for fraud and market manipulation. Such legislation has been adopted in most provinces and territories.

Risk mitigation: We continually monitor legal developments and annually re-evaluate our disclosure practices and procedures. In addition, we periodically consult external advisors to review our disclosure practices and procedures and the extent to which they are documented. We have a corporate disclosure policy that restricts the role of Company spokespersons to specifically designated members of senior management, provides a protocol for dealing with analysts and oral presentations, and outlines the communication approach to issues, and our Disclosure Committee reviews key disclosure documents.

Legal and ethical compliance

We rely on our employees, officers, Board, key suppliers and other business partners to demonstrate behaviour consistent with applicable legal and ethical standards in all jurisdictions within which we operate including, but not limited to, anti-bribery laws and regulations. Situations might occur where individuals intentionally or inadvertently do not adhere to our policies, applicable laws and regulations or contractual obligations. For instance, there could be cases in which the personal information of a TELUS customer or employee is collected, used or disclosed in a manner that is not fully compliant with legislation, contractual obligations or TELUS policies. In the case of TELUS Health, personal information includes sensitive health information about individuals who are our customers or healthcare providers' end customers. In addition, there could be situations where compliance programs may not be fully adhered to, or where parties may have a different interpretation of the requirements of particular legislative provisions. These various situations may expose us to litigation and the possibility of damages, sanctions and fines, or of being disqualified from bidding on contracts, and may negatively affect our financial or operating results and reputation.

We continue to expand our activities into the United States and other countries. When operating in foreign jurisdictions, we are required to comply with local laws and regulations, which may differ substantially from Canadian laws and add to the regulatory, legal and tax exposures that we face.

Risk mitigation: Although we cannot predict outcomes with certainty, we believe that we have reasonable policies, controls and processes in place, and levels of awareness sufficient for proper compliance, and that these are having a positive effect on reducing risks. We have a comprehensive code of ethics and conduct for our employees, including officers and directors, and mandatory annual integrity training for employees, officers and identified contractors, as well as a toll-free EthicsLine for anonymous reporting by anyone who may have concerns or complaints to bring forward. In early 2012, we implemented our supplier code of conduct. In 2013, a specific anti-bribery and corruption policy was approved by the Board and communicated to team members. We conduct targeted mandatory training on anti-bribery and corruption, as well as on our business sales code of conduct. We have a designated Chief Data and Trust Officer, whose role is to work across the enterprise to ensure that the business has appropriate processes and controls in place to facilitate legal compliance and report on compliance to the Audit Committee. For example, as a proactive measure on privacy compliance, we require a privacy impact assessment to be carried out in the development stage for major projects involving the use of customer or team member personal information.

We have an established review process to ensure that regulatory, legal and tax requirements are considered when pursuing opportunities outside of Canada. On an ongoing basis, we review our international structure, systems and processes to ensure that we mitigate regulatory, legal and tax risks, as our business activities expand outside Canada. Finally, we engage external counsel and advisors qualified in the relevant foreign jurisdictions to provide regulatory, legal and tax advice, as appropriate.

Defects in software and failures in data or transaction processing

We provide certain applications and managed services to our customers that involve the management, processing and/or storing of data, including sensitive personal medical records, and the transfer of funds. Software defects or failures in data or transaction processing could lead to substantial damage claims (including privacy and medical claims). For instance, a defect in a TELUS Health application could lead to personal injury or unauthorized access to personal information, while a failure in transaction processing could result in the transfer of funds to the wrong recipient.

Risk mitigation: We believe that we have in place reasonable policies, controls, processes (such as quality assurance programs in software development procedures) and contractual arrangements (such as disclaimers, indemnities and limitations of liability in most cases), as well as insurance coverage, to reduce our exposure to these types of legal claims. However, there can be no assurance that our processes will be followed by all team members at all times and that we have indemnities and limitations of liability covering all cases.

Intellectual property and proprietary rights

Technology evolution also brings additional legal risks and uncertainties. The intellectual property and proprietary rights of owners and developers of hardware, software, business processes and other technologies may be protected under statute, such as patent, copyright and industrial design legislation, or under common law, such as trade secrets. With the growth and development of technology-based industries, the value of these intellectual property and proprietary rights has increased. Significant damages may be awarded in intellectual property infringement claims advanced by rights holders. In addition, defendants may incur significant costs to defend such claims, and that possibility may prompt defendants to settle claims more readily, in part to mitigate those costs. Both of these factors may also encourage intellectual property rights holders to pursue infringement claims more aggressively.

Given the vast array of technologies and systems that we use to deliver products and services, and the rapid change and complexity of such technologies, disputes over intellectual property and proprietary rights can reasonably be expected to increase. As a user of technology, we receive communications from time to time, ranging from solicitations to demands and legal actions from third parties claiming ownership rights over intellectual property used by us and asking for settlement payments or licensing fees for the continued use of such intellectual property.

There can be no assurance that we will not be faced with other significant claims based on the alleged infringement of intellectual property rights, whether such claims are based on a legitimate dispute over the validity of the intellectual property rights or their infringement, or are advanced for the primary purpose of extracting a settlement. We may incur significant costs in defending TELUS against infringement claims, we may suffer significant damages and we could lose the right to use technologies that are essential to our operations should any infringement claim prove successful. As a developer of technology, TELUS Health depends on its ability to protect the proprietary aspects of its technology. The failure to do so adequately could materially affect our business. However, policing unauthorized use of our intellectual property may be difficult and costly.

Assessment of intellectual property claims

We believe that we have good defences to each of the intellectual property claims against us. Should the ultimate resolution of these claims differ from management's assessments and assumptions, a material adjustment to our financial position and the results of our operations could result. Management's assessments and assumptions include that reliable estimates of the exposure cannot be made for the majority of these claims considering continued uncertainty relating to the validity of the intellectual property at issue, whether or not technology used by us infringes upon that intellectual property, and the nature of the damages that will be sought by the plaintiffs.

Risk mitigation: We incorporate many technologies into our products and services. However, with the exception of TELUS Health, we are not primarily in the business of creating or inventing technology. In acquiring products and services from suppliers, it is our practice to seek and obtain contractual protections consistent with standard industry practices to help mitigate the risks of intellectual property infringements. It is the practice of TELUS Health to protect its intellectual property rights through litigation and other means.

10.10 Health, safety and environment

Team member health, wellness and safety

Lost work time resulting from team member illness or injury can negatively affect organizational productivity and employee benefit costs.

Risk mitigation: To achieve a positive effect on absenteeism in the workplace, we support a holistic and proactive approach to team member health that involves early intervention, health risk prevention, employee and family assistance, assessment and support services, and disability management. Our health and wellness strategies encourage our team members to develop optimal personal health through three fundamental pillars: active living, wise nutrition and mental resilience. To promote safe work practices, we offer training and orientation programs for team members, contractors and suppliers who access our facilities. There can be no assurance that these health, wellness and safety programs and practices will be effective in all situations.

Concerns related to radio frequency emissions from mobile phones and wireless towers

TELUS understands there are public concerns over potential impacts associated with low levels of non-ionizing radio frequency (RF) emissions from mobile phones and cell towers.

To address these concerns, TELUS looks to recognized experts with peer-reviewed findings and government agencies to provide guidance on potential risks. While a small number of epidemiological studies have revealed that exposure to RF fields might be linked to certain cancers, other studies have not supported this association. Furthermore, animal laboratory studies have found no evidence that RF fields are carcinogenic for laboratory rodents or cause damage to DNA.

The International Agency for Research on Cancer (IARC) and Health Canada have advised mobile phone users that they can take practical measures to reduce their exposure to RF emissions, such as limiting the length of cellphone calls, using hands-free devices and replacing

cellphone calls with text messages. In addition, Health Canada encourages parents to take these same measures to reduce their children's RF emission exposure, since children are typically more sensitive to a variety of environmental agents. TELUS also offers information and advice with respect to radio frequency emissions on its website.

There can be no assurance that future studies, government regulations or public concerns about the health effects of RF emissions will not have an adverse effect on our business and prospects. For example, public concerns or government action could reduce subscriber growth and usage, and costs could increase as a result of the need to modify handsets, relocate wireless towers and address any incremental legal requirements and product liability lawsuits that might arise or have arisen. See *Class actions* in *Section 10.9 Litigation and legal matters*.

Risk mitigation: Canada's federal government is responsible for establishing safe limits for signal levels of radio devices. We are confident that the handsets and devices we sell, and our wireless towers and other associated devices, comply, in all material respects, with all applicable Canadian and U.S. government safety standards. We continue to monitor new published studies, government regulations and public concerns about the health impacts of RF exposure.

Concerns related to the environment

A detailed report of our environmental risk mitigation activities can be found in our annual sustainability report at **sustainability.telus.com**. Environmental issues affecting our business include:

Climate change

Failure of climate change mitigation and adaptation efforts is identified as the largest global risk in terms of impact and third-largest in terms of likelihood, according to a World Economic Forum 2016 report. This could affect our business operations through potential disruption of our operations, damage to our infrastructure and the effects on the communities we serve caused by events such as those described in *Section 10.11 Human-caused and natural threats.*

Waste and waste recycling; water consumption

Several areas of our operations raise environmental considerations such as the handling and disposal of waste, electronic waste or other residual materials, appropriate management of our water use and the appropriate handling of materials and electronic equipment we use or sell. Aspects of our operations are subject to evolving and increasingly stringent federal, provincial and local environmental, health and safety law and regulations. Such laws and regulations impose requirements with respect to matters such as the release of substances into the environment, corrective and remedial action concerning such releases, and the proper handling and management of substances including wastes. Evolving public expectations and increasingly stringent laws and regulations could result in increased costs of compliance, while failure to recognize and adequately respond to the same could result in fines, regulatory scrutiny, or damage to our reputation and brand.

Fuel systems

We own or lease a large number of properties. We have fuel systems for backup power generation at some of these properties that enable us to provide reliable service, but they also pose an environmental risk. Because diesel spills or releases from these systems are infrequent, a significant portion of this risk is associated with sites contaminated by our earlier practices or by previous owners.

Failure to recognize and adequately respond to changing government and public expectations regarding environmental matters could result in fines, regulatory scrutiny or damage to our brand.

Risk mitigation: Our climate change strategy includes a mitigation component focusing on absolute energy use and carbon dioxide emission (CO_2e) equivalent reduction; an adaptation component focusing on business continuity planning and readiness for the potential effects of a changing climate on our operations (see *Section 10.11 Human-caused and natural threats*); and an innovation component to help customers realize their climate change targets through product and service solutions. Our target is a 25% reduction in CO_2e from 2010 levels by 2020 and a 10% reduction in energy use over the same period. We are working to achieve these targets through a comprehensive energy management program focused on real estate transformation and consolidation (including leadership in energy and environmental design (LEED) standards certification), as well as network efficiency and technology upgrades. Greater use of video-conferencing and teleconferencing solutions in lieu of travel, decreasing the size and improving the efficiency of our fleet, and educating our team members are also helping us to reach our targets. We have also invested in renewable energy solutions and green building technology, such as the innovations implemented at our new LEED platinum-certified TELUS Garden office tower in Vancouver.

We have an e-waste management program that specifies approved recycling channels for both our external and internal electronic products. We regularly examine our waste streams to identify new ways of reducing our impact on the

environment through the diversion of waste from landfills, and in 2015, we set new corporate waste diversion targets focused on reducing our landfilled waste over the next five years. Our waste and recycling strategy is focused on education and awareness programs, as well as the expansion of recycling infrastructure in our administrative buildings.

Fuel system risk is being addressed through a program to install containment and monitoring equipment at sites with systems of qualifying size. All of our remote sites, which rely on diesel generators for 24/7 power, have now been fully upgraded with industry-leading spill containment. We are also leveraging our wireless network and using IoT technology to monitor these sites remotely. We have an ongoing program to assess and remediate contamination issues relating to historical activities and we disclose and report on these issues to regulatory

bodies, as appropriate.

10.11 Human-caused and natural threats

Natural disasters and intentional threats to our infrastructure and business operations

We are a key provider of essential telecommunications infrastructure in Canada, and we have business operations located in North America, Central America, Asia and Europe. Our networks, information technology, physical assets, team members, business functions, supply chain and business results may be materially impacted by exogenous threats, including:

- Environment impacts, such as fire, weather-related events, seismic events and other natural disasters
- Disruptions of critical infrastructure, such as power loss and telecommunications failures
- Intentional threats such as cyberattacks, labour disputes, theft, vandalism, sabotage, and political and civil unrest
- Public health threats, such as pandemics.

Risk mitigation: We have an enterprise-wide business continuity program, which is aligned with our corporate philosophy, that includes: ensuring the safety of our team members, minimizing the impacts of a threat to our facilities and business operations, maintaining service to our customers and keeping our communities connected. These priorities have been demonstrated in a number of disruptive events, such as the Fort McMurray wildfires in 2016.

Our business continuity program aligns with current standards and business practices, and encompasses mitigation, preparedness, response, recover and ongoing program improvements. The program focuses on mitigating the impacts of a disruption to our facilities, workforce, technology or supply chain. Although we have business continuity planning processes in place, there can be no assurance that specific events or a combination of events will not disrupt our operations or materially affect our financial results.

The ongoing optimization of our disaster recovery capability for our IT and telecommunications network assets is a key and continued focus for preventing outages and reducing the impact to our critical technology, as well as for driving closer alignment of IT and network recovery capability with business demands. However, while disaster recovery is a focus for TELUS, not all of our systems have recovery and continuity capabilities.

Mitigation initiatives to address climate-related threats are also a current focus and include enhanced weather monitoring, improved incident management processes, climate incident playbooks, and a focus on organizational resilience.

Security

We have a number of assets that are subject to intentional threats. These include physical assets that are subject to security risks such as vandalism and/or theft, including (but not limited to) distributive copper cable, corporate stores, network and telephone switch centres, and elements of corporate infrastructure, as well as IT systems and networks that we operate. The latter are subject to cyber attacks, which are intentional attempts to gain unauthorized access to our information systems and networks for unlawful or improper purposes. Cyber attackers may use a range of techniques, from manipulating people to using sophisticated malicious software and hardware on a single or distributed basis. Some cyber attacks use a combination of techniques in their attempt to evade safeguards, such as the firewalls, intrusion prevention systems and antivirus software found in our systems and networks. The risk and consequences of intentional threats to our non-physical assets, including cyber attacks, can surpass physical security risks due to the rapidly evolving scope and sophistication of these threats.

A successful disruption of our systems, networks and infrastructure, or those belonging to our suppliers or other companies, may prevent us from providing reliable service, allow for the unauthorized interception, destruction, use or dissemination of our information or our customers' information, and may prevent us from operating our networks. Such disruption or unauthorized access to information could cause us to lose customers and revenue, incur expenses, suffer reputational and goodwill damages, and could subject us to litigation or governmental investigation and sanction. The costs of such events could include liability for information loss, as well as the costs of repairs to infrastructure and systems and any incentives offered to customers and business partners in order to retain their business. Our insurance may not cover, or fully reimburse us for, these costs and losses.

Risk mitigation: We have implemented measures and processes that mitigate the risk of intentional threats and disruptive events. We have security policies, controls and monitoring systems in place that consider factors such as asset importance, protection of our team members, exposure risks and potential costs incurred should a particular asset be damaged or stolen. We use technical capabilities, including cyber threat intelligence, testing, intrusion prevention/detection and incident response capabilities to help identify and respond to possible cyber threats, and adjust our security measures accordingly. The security team centralizes responsibility for physical and cybersecurity, works with

law enforcement and other agencies, and advocates for legislative changes that address the ongoing threat of cyber attacks. While TELUS has reasonable physical security and cybersecurity programs in place, there can be no assurance that specific security incidents will not materially affect our operations and financial results.

10.12 Economic growth and fluctuations

Slow or uneven economic growth and low oil prices may adversely affect us

We estimate economic growth in Canada will be approximately 1.8% in 2017 (see *Economic growth* in *Section 1.*2), but this growth may be influenced by developments outside of Canada. In addition, macroeconomic risks in Canada include concerns about low oil prices and high levels of consumer and mortgage debt, which may cause consumers to reduce discretionary spending, even in a growing economy.

Economic uncertainty may cause consumers and business customers to delay new service purchases, reduce volumes of use, discontinue use of services or seek lower-priced alternatives from TELUS or from competitors. Ongoing weakness in the extractive energy sector has had a significant impact on Western Canada, including lower levels of investment and employment. This may be partially mitigated by declining costs in non-extractive industries, such as manufacturing, which may experience growth if the U.S. dollar strengthens. The prolonged economic downturn in Western Canada is expected to improve marginally, with recent economic forecasts pointing to mildly positive growth in 2017. However, continued weakness in the economy of Western Canada, particularly if energy prices remain low, could adversely impact our customer growth, revenue, profitability and free cash flow, and could potentially require us to record impairments to the carrying value of our assets, including, but not limited to, our intangible assets with indefinite lives (spectrum licences and goodwill). Impairments to the carrying value of our assets would result in a charge to earnings and a reduction in owners' equity, but would not affect cash flow.

In 2016, the Canadian dollar exchange rate with the U.S. dollar was volatile. Persistently lower oil prices and changes the new U.S. presidential administration may enact, as well as certain U.S. monetary policy changes, may put further downward pressure on the Canadian dollar relative to the U.S. dollar in 2017. Certain of our revenues, capital asset acquisitions and operating costs are denominated in U.S. dollars. Therefore, a continuing weakness in the Canadian dollar to U.S. dollar exchange rate may negatively impact our financial and operating results. Additionally, certain capital asset acquisitions and inventory purchases from outside Canada, although priced in Canadian dollars, may be negatively impacted by a continuing weakness in the Canadian dollar to U.S. dollar exchange rate.

Risk mitigation: While economic risks cannot be completely mitigated, our top priority is putting customers first and pursuing global leadership in the likelihood of our clients to recommend our products, services and people. We will also support customers negatively affected by lower oil prices with cost-effective solutions that help them realize efficiencies in their operations, and we will continue to pursue cost reduction and efficiency initiatives in our own business (see discussions in *Section 2.2 Strategic imperatives,* and *Section 3 Corporate priorities*). See *Section 4.3 Liquidity and capital resources* for our capital structure financial policies and plans. Our foreign currency exchange risk management includes the use of foreign currency forward contracts and currency options to fix the exchange rates on U.S. dollar-denominated transactions, commitments, commercial paper and U.S. Dollar Notes, but does not eliminate this risk entirely.

Pension funding

Economic and capital market fluctuations could adversely affect the investment performance, funding and expense associated with the defined benefit pension plans that we sponsor. Our pension funding obligations are based on certain actuarial assumptions relating to expected plan asset returns, salary escalation, retirement ages, life expectancy, the performance of the financial markets and future interest rates.

The employee defined benefit pension plans, in aggregate, were in a $79 million deficit position at December 31, 2016 (2015 — $53 million deficit position). Our solvency position, as determined under the *Pension Benefits Standards Act, 1985*, was estimated to be a surplus of $294 million (2015 — deficit of $92 million). There can be no assurance that our pension expense and funding of our defined benefit pension plans will not increase in the future and thereby negatively impact earnings and/or cash flow. Defined benefit funding risks may arise if total pension liabilities exceed the total value of the respective plan assets in trust funds. Unfunded differences may arise from lower than expected investment returns, changes to mortality and other assumptions, reductions in the discount rate used to value pension liabilities, changes to statutory funding requirements and actuarial losses. While employee defined benefit pension plan re-measurements will cause fluctuations in other comprehensive income, these re-measurements will never be subsequently reclassified to income.

Risk mitigation: We seek to mitigate this risk through the application of policies and procedures designed to control investment risk and through ongoing monitoring of our funding position. Our best estimate of cash contributions to our defined benefit pension plans is $65 million in 2017 ($70 million in 2016).

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 Consolidated 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

Years ended December 31 ($)	2016	2015
Numerator — sum of the last four quarterly dividends declared per Common Share	**1.84**	1.68
Denominator — Net income per Common Share	**2.06**	2.29
Ratio (%)	**89**	73

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 (transformative compensation) expense, long-term debt prepayment premium (when applicable) and income tax-related adjustments.

Calculation of Dividend payout ratio of adjusted net earnings

Years ended December 31 ($)	2016	2015
Numerator — sum of the last four quarterly dividends declared per Common Share	**1.84**	1.68
Adjusted net earnings ($ millions):		
Net income attributable to Common Shares	**1,223**	1,382
Deduct net gains and equity income from real estate joint venture developments, after income taxes	**(16)**	—
Deduct gain on the exchange of wireless spectrum licences, after income taxes	**(13)**	—
Add back business acquisition-related provisions, after income taxes	**15**	—
Add back transformative compensation expense, after income taxes	**224**	—
Add back net unfavourable (deduct net favourable) income tax-related adjustments	**(17)**	1
	1,416	1,383
Denominator — Adjusted net earnings per Common Share	**2.39**	2.29
Adjusted ratio (%)	**77**	73

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

Years ended December 31 ($ millions, except ratio)	2016	2015
Net income attributable to Common Shares	**1,223**	1,382
Income taxes (attributable to Common Shares)	**423**	524
Borrowing costs (attributable to Common Shares)[1]	**540**	503
Numerator	**2,186**	2,409
Denominator — Borrowing costs	**540**	503
Ratio (times)	**4.0**	4.8

(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 and segment contribution. 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 an 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

Years ended December 31 ($ millions)	2016	2015
Net income	**1,236**	1,382
Financing costs	**520**	447
Income taxes	**426**	524
Depreciation	**1,564**	1,475
Amortization of intangible assets	**483**	434
EBITDA	**4,229**	4,262
Restructuring and other costs included in EBITDA[1]	**479**	226
EBITDA — excluding restructuring and other costs	**4,708**	4,488
Deduct gain on the exchange of wireless spectrum licences	**(15)**	—
Deduct net gains and equity income from real estate joint venture developments	**(26)**	—
Adjusted EBITDA	**4,667**	4,488

(1) Includes transformative compensation expense of $305 million recorded in other costs in the fourth quarter of 2016.

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 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

Years ended December 31 ($ millions)	2016	2015
EBITDA	**4,229**	4,262
Deduct gain on the exchange of wireless spectrum licences	**(15)**	—
Deduct net gains and equity income from real estate joint venture developments	**(26)**	—
Deduct non-cash gains from the sale of property, plant and equipment	**(17)**	—
Restructuring and other costs, net of disbursements	**24**	97
Items from the Consolidated statements of cash flows:		
Share-based compensation	**(2)**	(38)
Net employee defined benefit plans expense	**93**	118
Employer contributions to employee defined benefit plans	**(71)**	(94)
Interest paid	**(510)**	(458)
Interest received	**4**	24
Capital expenditures (excluding spectrum licences)	**(2,968)**	(2,577)
Free cash flow before income taxes	**741**	1,334
Income taxes paid, net of refunds	**(600)**	(256)
Free cash flow	**141**	1,078

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

Years ended December 31 ($ millions)	2016	2015
Free cash flow	**141**	1,078
Add (deduct):		
Capital expenditures (excluding spectrum licences)	**2,968**	2,577
Adjustments to reconcile to Cash provided by operating activities	**110**	(99)
Cash provided by operating activities	**3,219**	3,556

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

As at December 31 ($ millions)	2016	2015
Long-term debt including current maturities	**12,931**	12,038
Debt issuance costs netted against long-term debt	**67**	52

Derivative liabilities (assets), net	**20**	(14)
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)	**(34)**	—
Cash and temporary investments	**(432)**	(223)
Short-term borrowings	**100**	100
Net debt	**12,652**	11,953

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 2016 and 2015. Expenses recorded for the long-term debt prepayment premium, if any, are included in net interest cost. Net interest cost was $566 million in 2016 and $465 million in 2015.

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. We also 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.

In the fourth quarter of 2016, we made transformative compensation lump-sum payments to substantially all of our existing unionized and non-unionized Canadian-situated workforces recorded in other costs. For the unionized and non-unionized workforces, approximately 40% of the after-tax value of such qualifying lump-sum payments was paid in our Common Shares by way of an employee benefit trust.

Components of restructuring and other costs

Years ended December 31 ($ millions)	2016	2015
Goods and services purchased	**62**	70
Employee benefits expense[1]	**417**	156
Restructuring and other costs included in EBITDA	**479**	226

(1) Includes transformative compensation expense of $305 million recorded in other costs in the fourth quarter of 2016.

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.

Cost of acquisition (COA) consists of the total of the device subsidy (the device cost to TELUS less the initial charge to the customer), commissions, and advertising and promotion expenses related to the initial subscriber acquisition during a given period. As defined, COA excludes costs to retain existing subscribers (retention spend).

COA per gross subscriber addition is calculated as the cost of acquisition divided by the gross subscriber activations during the period.

Retention spend to network revenue represents direct costs associated with marketing and promotional efforts (including device subsidies and commissions) aimed at the retention of the existing subscriber base, divided by network revenue.

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 (M2M) 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.

Exhibit 99.5:

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statement No. 333-213497 on Form F-10, Registration Statement No. 333-186874 on Form F-3 and Registration Statement No. 333-181463 on Form S-8 and to the use of our reports dated February 9, 2017 relating to the consolidated financial statements of TELUS Corporation and subsidiaries and the effectiveness of TELUS Corporation and subsidiaries' internal controls over financial reporting, appearing in this Annual Report on Form 40-F of TELUS Corporation for the year ended December 31, 2016.

/s/Deloitte LLP
Chartered Professional Accountants
Vancouver, Canada
March 16, 2017

Exhibit 99.6:

Amended 2017 Code of Ethics and Conduct



TELUS Code of Ethics & Conduct

February 2017

1

TELUS Code of Ethics & Conduct

Table of Contents

Introduction	4
Responsibilities	5
All TELUS Team Members	5
Leaders	5
Team members with internal controls over financial reporting and disclosure control roles	5
Members of the TELUS Board of Directors	6
Team Members and Board Members who represent TELUS as directors on the boards of other organizations	6
Ethics Office	6
Integrity Work Group	6
Compliance/Exceptions	6
Waivers	7
Ethical Decision Making	7
1. Questions to Ask Yourself	7
2. Talk to Your Leader	8
3. Expert Assistance	8
4. TELUS EthicsLine	8
5. Last Resort Resolution	10
Guidelines	10
Privacy of Communications	10
Confidentiality of Information	11
Personal Integrity	12
Fraud	12
Compliance with Domestic and Foreign Laws	12
Contributing to our Communities	13
Competing Ethically/Lawfully/Fairly	13
Bribes and Facilitation Payments	13
Other Parties' Confidential Information	14
Lawful Competition	14
Dealing with Governments	14
Political Activities	15
Proprietary Rights and Assets of Others	15
Involvement in a legal matter	15
Improper Influence on the Conduct of Audits	15
Respectful Workplace / Human Rights	16
Valuing Diversity and Inclusion	16
Health and Safety	16
Environment & Sustainability	17
Company Assets and Information	18
Company Information	18
Public Disclosure	19
Business Records	19
Financial Transactions	20
Safeguarding Assets	20
Intellectual Property	20
Personal Use of Communication Devices	21
Conflict of Interest	23
Personal Gain	23
Family Members and Personal Relationships	24

Outside employment and other non-TELUS activities 25
Future TELUS Business 25
Information 25
Insider Trading 25
Gifts and Benefits 26
Dealing with Suppliers 30
Selecting Suppliers 30
Adherence to applicable TELUS policies 31
Supplier-funded incentive programs 31
Review Guidelines and Policies 31

All TELUS team members:

At TELUS, our commitment to ethical behaviour reflects our collective belief in inclusion, transparency and integrity. We understand that in order to deliver on our future friendly brand promise and our Customers First priority, we need to be consistently mindful of our Code of Ethics & Conduct. As a team, we agree that *how* we work is just as important as *what* we do, and we expect our extended TELUS family, including our contractors, suppliers, vendors, community partners and members of our Board of Directors, to share our commitment to personal and professional integrity.

A pillar of our award-winning culture is our belief in continuous learning, and our ever-evolving Code of Ethics & Conduct outlines the ethical standards expected of all team members. It covers an extensive range of topics, from conflict of interest and the acceptance of gifts and benefits to the protection of company assets and information. Whilst comprehensive in nature, the Code is not exhaustive and we appreciate you leveraging the basic policies and standards within this document to inform your actions. Moreover, we ask that you use the Code as a guide to spark a dialogue with your colleagues and leaders and as a resource to assist you and your peers in doing the right thing.

Increasingly, citizens are choosing to do business with and work for organisations that share their values. As the most authentic ambassadors of our brand, you define us as a company of choice; one that citizens around the globe choose to recommend to their friends, family and personal networks. Indeed, our culture of integrity is underpinned by your commitment to embracing the ethical standards highlighted within our Code. We are grateful to you for using this as a guidepost in your daily interactions with our customers, shareholders, team members and the communities we serve.

With appreciation,

Darren Entwistle
President and Chief Executive Officer

Doug French
Executive Vice-President and Chief Financial Officer

Sandy McIntosh
Executive Vice-President People & Culture and Chief Human Resources Officer

Introduction

Why do we have a Code?

TELUS' Code of Ethics & Conduct (the "Code") outlines the behaviours that we must exhibit in order to meet and uphold TELUS' ethical and conduct standards. The Code is intended to set the tone for how we work at TELUS and to help us recognize ethical and compliance issues before they arise and guide how we deal with those issues should they arise.

The Code applies to the directors, officers and employees (referred to as "team members") of the TELUS group of companies (i.e. TELUS Corporation and all of its subsidiaries and affiliates) ("TELUS" or the "Company"). Team members are required to review this Code at least annually to remain familiar with its terms and to adhere to them.

To assist team members in remaining familiar with the Code, they are required to complete the Integrity training course each year. Team members must also complete any other required ethics and compliance courses in a timely manner.

The Code cannot address every possible situation, so it is up to team members to use good judgment and seek help whenever they have questions or are not sure about the right course of action.

The Code constitutes a term of the employment contract of all TELUS team members.

TELUS reserves the right to revoke or amend any term of the Code if required by the needs of the business. TELUS will notify team members of any amendments to the Code prior to the changes becoming effective.

The Code is available on the Company's intranet under Go/Ethics, and is publicly available at about.telus.com/governance/ethics.html.

Responsibilities

All TELUS Team Members

Ethical behavior is an individual responsibility and reflecting high ethical standards is the expectation of all of us. All team members are expected to act honestly in all their dealings, comply with the laws governing our businesses, and maintain an ethical work environment**.** This standard requires that each member of our team understand and apply the guidelines in this Code to everyday actions and decisions.

At TELUS, we not only do things right, but we should strive to *do the right things*.

All business activities should be able to stand up to any possible public scrutiny and further investigation if required.

The guidelines in this Code are based upon generally accepted standards of ethical business conduct and applicable laws. The absence of a guideline covering a particular situation does not relieve any of us from the responsibility for acting ethically and within the law.

Leaders

In addition to the aforementioned responsibilities, TELUS managers (referred to as leaders) have responsibility to:

- Be familiar with the Code and resolution procedures
- Demonstrate leadership by promoting and maintaining a climate in which honest, ethical and legal business conduct is the norm
- Ensure that annual Integrity training is completed by all team members and that violations of the Code are appropriately addressed
- Identify any risks of non-compliance with this Code within their area of responsibility and take appropriate steps to address such risks
- Maintain a work environment that encourages open discussion and resolution of all ethical and conduct concerns without the fear of retaliation
- Maintain, without compromise, our ethical and other conduct standards in achieving goals and objectives, no matter how important the goal or objective may be
- Use our performance review process to evaluate team members not only on the business objectives achieved, but also how they are achieved
- Recognize team members whose behaviour and actions demonstrate strong ethical decision making and adherence to conduct standards

Team members with internal controls over financial reporting and disclosure control roles

In addition to the above responsibilities, team members who have roles regarding internal controls and financial reporting and disclosure controls have, as outlined in the Policy on Corporate Disclosure and Confidentiality of Information, the responsibility to make full, fair, accurate, timely and understandable disclosure in reports and documents that TELUS files with, or submits to, securities commissions and in other public communications made by TELUS.

Members of the TELUS Board of Directors

TELUS Board members have the responsibility to notify the Chair of the Board of any potential or perceived conflict of interest or other Code issues which arise during the course of their Board service.

Team Members and Board Members who represent TELUS as directors on the boards of other organizations

In addition to the above responsibilities, TELUS team members and Board members who represent TELUS on the boards of other organizations have the responsibility to notify the Chair of the Board (if they are a Board member) or the TELUS Integrity Work Group (if they are a team member) of any potential perceived conflict of interest or other Code issues which arise during the course of their service on another organizations' board. In providing such notice, Board members and team members should exercise due care to ensure that they act in compliance with their fiduciary and other obligations to the other organization and, for example, do not disclose that organization's confidential information to TELUS, without prior written approval of that organization.

Ethics Office

The Ethics Office is established to provide team members with a resource regarding ethical and conduct matters. This office oversees the Code, conducts investigations, provides advice on ethical issues and conduct matters and develops and administers training for TELUS' expected standards of business conduct. The office reports on its activities, including on breaches of the Code, to the President and Chief Executive Officer and financial officers (unless implicated) and to the Human Resources and Compensation Committee and the Audit Committee of the Board on a quarterly basis.

Integrity Work Group

An Integrity Work Group supports the Ethics Office in overseeing the Code and quarterly reporting to senior leadership and the Human Resources and Compensation Committee and the Audit Committee of the TELUS Board. Members of the Integrity Work Group include representatives from Risk Management, People & Culture, Labour Relations, Legal Services, the Data & Trust Office, TELUS International and the TELUS Security Office.

Compliance/Exceptions

In situations where the right ethical behaviour is unclear, or where there may be the appearance of a contravention of these guidelines, we support each other in seeking advice and clarification. If you are unsure as to the proper course of action to take in a particular situation, you should first discuss the situation with your leader (supporting manager) or the applicable department identified in this Code. Team members should retain all documentation and save a written record of the guidance provided by their leader or members of other departments and any decision made in the event there is a future investigation with respect to a possible violation of the Code.

If you become aware of a possible violation of the Code, you are required to report it to the Ethics Office. For more details, please refer to the TELUS EthicsLine section. Members of the TELUS Board may also advise the Chair of the Board of potential violations. The Chair will refer the matter to the Ethics Office for investigation, resolution

and reporting. Possible violation of applicable laws will be directed to Legal Services for review and investigation.

Failure to act in accordance with the guidelines outlined in this Code may have consequences for the individual team members, may create potential harm to TELUS' reputation and brand, and may put TELUS at risk for civil or criminal liability. Individual consequences may include disciplinary action, up to and including dismissal for just cause, as well as civil and criminal penalties. Therefore, please regard the requirement to understand and to act in accordance with the Code as a very serious obligation.

Waivers

It is not intended that there be any waivers to this Code. In the unlikely event that a waiver is considered and granted for an executive leadership team ("ELT") member or a member of the Board, it must receive prior written approval by the Board or its delegate. The delegate must be a Board committee member. In such circumstances, any waivers granted to an ELT member or member of the Board must be disclosed, subject to the TELUS Policy on Corporate Disclosure and Confidentiality of Information.

In the unlikely event that a waiver is considered for team members other than an ELT member or a member of the Board, prior written approval must be received from the Executive Vice President, Corporate Affairs, Chief Legal and Governance Officer together with the Vice President Risk Management & Chief Internal Auditor and must be promptly reported to the Audit Committee of the Board.

Ethical Decision Making

This Code reflects our commitment to high standards of integrity and ethical behaviour in our professional and business dealings. The Code is intended to support open and frank discussion and the satisfactory resolution of ethical dilemmas. We encourage "asking before acting."

Each of us is responsible for striving to ensure our behaviour is ethical and for taking steps to resolve ethical dilemmas. The guidelines in this Code are provided to assist with ethical decision-making. However, as business becomes increasingly complex, the Code cannot provide guidance for every possible situation.

If you have an ethical issue with which you would like help, follow the process below, stopping at the point at which your situation has been resolved.

1. Questions to Ask Yourself

Gather information and then determine if the situation you face is an ethical issue. The questions below may help to clarify your situation and ethical action.

- What is my immediate feeling about this?
- Does this comply with company policies and procedures?
- Is this legal?
- Is this an expected part of my job?
- How would others perceive this action?
- Would I or TELUS be embarrassed if this situation were discussed in the media?
- Would I be putting TELUS or myself at unnecessary risk?

- What impact would this have on my or the Company's reputation?
- Is this taking revenue or customers away from TELUS or otherwise negatively impacting on TELUS' interests?
- Does this affect my judgment to act in the best interests of TELUS?

We rely on all team members to use good judgment to guide behaviour and to ask questions in situations where the proper course of action may be unclear.

2. Talk to Your Leader

Often your leader is in the best position to help you work through the issue. Your leader is responsible for supporting open discussion, working through the ethical questions and other issues you have that touch on the Code, and guiding your access to further assistance as required. In situations where you are uncomfortable talking with your leader, or your leader is unable to help, you should refer to the next level of leadership or seek expert assistance as detailed in the next section.

3. Expert Assistance

If you have tried the above steps but still have questions, assistance is available through designated subject matter experts in People & Culture, Legal Services, the Data & Trust Office, the TELUS Security Office, the Ethics Office, Regulatory Affairs and Corporate Accounting & Financial Reporting. Names and contact telephone numbers are listed on the Company's internal website, under Ethics. TELUS International team members may contact their Senior Vice President for People & Culture.

4. TELUS EthicsLine

You may also contact the TELUS EthicsLine to request ethical guidance or make a good-faith report about misconduct or a perceived violation of this Code, another company policy or procedure, a law, questionable business practices, potential fraud or concerns or complaints with respect to any accounting, accounting controls or auditing matter. Reports may be made anonymously.

A good-faith report alleging misconduct must be made promptly after the occurrence of a violation or perceived violation, or after becoming aware of it. Failure to file a report promptly may negatively impact TELUS' ability to evaluate, investigate or resolve the alleged misconduct.

The EthicsLine is operated by an independent company and is staffed 24 hours a day, seven days a week, by live operators who are fluent in multiple languages. EthicsLine operators document and forward the report to the Ethics Office for review and handling following each call or web contact. Where the report involves accounting, accounting controls or auditing matters, EthicsLine operators forward the report directly to the Executive Vice President, Corporate Affairs, Chief Legal and Governance Officer, who will, as appropriate, review and assess the seriousness of such report with one or more of:

- the Executive Vice President & Chief Financial Officer,
- the Vice President Risk Management & Chief Internal Auditor,
- the Chief Data & Trust Officer, who oversees the Data & Trust Office , or
- the Audit Committee of the TELUS Board.

The Ethics Office forwards complaints regarding potential violation of laws to Legal Services for review and handling.

Phone toll free: 1-888-265-4112 in North America. See website for other international dialing instructions Web: link from www.telus.ethicspoint.com or company intranet

How the Ethics Office handles Inquiries:

The Ethics Office will assist team members in ethical decision-making by providing guidance concerning the Code. The Ethics Office may also refer to other subject matter experts within TELUS for assistance.

How the Ethics Office handles Complaints:

a) Assessment of complaint

The Ethics Office will assess the nature of the complaint which will be reviewed under the direction of Legal Services in appropriate cases. The following matters for which other remedies exist will not be investigated by the Ethics Office and will be redirected as follows:

- **Labour relations issues** — Labour Relations and the immediate leader or other members of leadership
- **Employment issues** such as promotions, remuneration, reprimands, suspensions, dismissals — People & Culture and the immediate leader or other members of leadership
- **Respectful Workplace issues** such as harassment and discrimination — Respectful Workplace Office
- **Customer service complaints** — Customer Care or Client Care
- Others may be redirected on a one of basis as determined by the Ethics Office

b) Investigation

All complaints to the Ethics Office are taken seriously and investigated in a timely manner. If substantiated, the complaint will be resolved through appropriate corrective action and/or discipline. If you make a complaint and choose to identify yourself, you will be notified when the Ethics Office has completed its review. Every effort will be made to maintain privacy and confidentiality for those who contact the Ethics Office or who are accused of a breach of this Code (although disclosure may be necessary in some cases to effectively conduct an investigation, take corrective action or support legal proceedings or otherwise as required by law). It is expected that all reports to the Ethics Office will be made in good faith. Deliberately or recklessly making false complaints will result in disciplinary action up to and including dismissal for just cause.

c) Protection for Reporting

We support and encourage our team members to come forward in order for the Ethics Office and other subject matter experts to investigate and allow for a proactive response to potential areas of concern. Retaliation or retribution against a team member for contacting the Ethics Office or for assisting or participating in an investigation of a complaint violates our ethical principles and will not be tolerated. If you feel you have been retaliated against, you should contact People & Culture or the Ethics Office immediately.

d) Opportunity to Respond

If it has been found that a team member has breached or has likely breached this Code, the team member will be informed of the complaint in due course. He or she will be provided the opportunity to respond and, where appropriate, to contribute to the correction of the breach.

e) Reporting of Breaches

Any breach of the Code will be reported to senior leadership with recommendations for action. Ethical issues reported to the Ethics Office will be summarized quarterly and reported to the Human Resources and Compensation Committee and the Audit Committee of the Board, together with results of investigations, recommendations and action. The Executive Vice President, Corporate Affairs, Chief Legal and Governance Officer will report significant complaints regarding accounting, internal accounting controls or auditing matters directly to the Chair of the Audit Committee of the Board.

f) File Documentation

Records of the report and investigation, including contents of meetings, interviews, results of investigations and other relevant material, will be maintained by the Ethics Office in a separate file, and managed in accordance with the TELUS Privacy Code and Record Retention Policy. Disclosure of information internally will be strictly limited to a need-to-know basis.

5. Last Resort Resolution

If an ethical issue remains unresolved, the Integrity Work Group is available as the body of last resort to discuss the issue and guide the resolution of any ethical issue brought forward. Every ethical issue referred to the Integrity Work Group will first be reviewed by a sub-committee of the Integrity Work Group to assess its merits and relevance. If the sub-committee determines, based upon a review of the evidence submitted, that the issue has not been reported in good faith but is frivolous and / or vexatious, or that it is made in bad faith, it may recommend to the Integrity Work Group that no further action be taken. The Integrity Work Group will review the recommendation from the sub-committee and make a decision whether to assess the merits of the issue or determine that no further action be taken.

Guidelines

Privacy of Communications

As a telecommunications service provider, we may have access to content of communications transmitted through our facilities. We protect the privacy of customer communications by taking reasonable steps to secure communications against tampering, intrusion or disclosure except as authorized by law. This includes appropriate safeguards to protect the content, nature and existence of telephone calls and data transmissions against improper release to third parties.

A team member may intercept a private communication only when such interception is necessary for the purpose of providing the service, for the purpose of quality control checks, to protect the Company’s facilities from fraudulent activity, or when otherwise authorized by law.

In order to comply with privacy laws, protect confidential information and maintain a respectful workplace, team members must not record workplace conversations or take photographs or videos in the workplace with a recording device or camera (including, but not limited to, a smartphone) without either obtaining prior consent from all parties included in the recording, photograph or video or prior authorization from their leader or other TELUS management. Team members should contact their leader or the Ethics Office for further information on recording workplace conversations.

Confidentiality of Information

We respect and protect the confidentiality, security and integrity of the information of others whether it belongs to other team members, contractors, suppliers, vendors, community partners, customers or competitors and we earn trust through effective and ethical management of their information.

The definition of “customer” includes our direct customers, customers who are also our competitors, a third party’s customers (customers of our customers), and may include team members who are also our customers. All customer and team member personal information is confidential and may not be disclosed except as outlined in the TELUS Privacy Code and as permitted by law.

Access to team member, partner, supplier and customer personal information is strictly controlled on a “need-to-know” basis and is used for legitimate business purposes only.

The TELUS Privacy Code and related practices set out guidelines for managing customer, supplier and team member personal information. Various areas of the Company may have additional supporting management practices in place. Refer to your leader for more information.

Case Studies

Problem

My friend calls me at work in the Call Centre to ask me to look up the address and phone number of a TV personality since this information is not listed in the public directory. Should I look this up and provide the information?

Action

No. Unless you have a legitimate business reason to look up the information, you must not even access this customer's account and should certainly not provide the requested information to your friend.

Problem

My next-door neighbour is a good friend of the family of one of my former team members who now works for a different leader. My neighbour asks me how this team member is doing. I explain that he no longer works on my team and is away from the office on stress leave. Should I have discussed my former team member's status with a close family friend?

Action

No. It is not appropriate for you to discuss the status of your former team member even though you know your neighbour is a close family friend. Team members are reminded that it is inappropriate to disclose personal information of

our team members for non-work related purposes. Of particular concern is sensitive personal information such as health or financial information and information about disciplinary action. This is contrary to our Privacy Code.

Problem

Today I had a challenging experience with a customer and I could not make them happy. I have my own blog on our intranet and would like to post my experience so that I can get suggestions from my team members on how to handle similar situations. Should I post this?

Action

Soliciting feedback from your team members is an excellent idea; however, you should act cautiously. Even though you are posting this internally, you must protect the privacy of your customer. Review what you intend to post to ensure you are not inappropriately identifying your customer and, if in doubt, discuss with your leader before posting.

Problem

My sister is in a marital dispute with her spouse. Is it acceptable to help her by looking up the calling and account details of her spouse?

Action

No. Unless you have a business reason to look up the information, you must not even access this customer's account and should certainly not provide the requested information to your sister.

Personal Integrity

Individually and collectively, our personal integrity supports the honest use of company resources such as time, funds and property in dealings with co-workers and others. Business needs must take priority in the allocation of our time at work. Use of company resources is for business purposes only unless otherwise authorized by the appropriate leadership. While we respect the privacy and autonomy of our team members in their personal lives, their actions, both in the workplace and outside it, have the potential to negatively impact the reputation of our company.

Fraud

We have a zero tolerance stance with regards to instances of confirmed fraud. Fraud can be simply defined as any intentional act, omission, deception, falsification or misrepresentation designed to deceive others, resulting in the victim suffering a loss and/or the perpetrator achieving a gain. As team members we will not engage directly or indirectly in fraud, including account falsification, expense fraud, time fraud, or any other fraudulent practices or reporting. If you are approached by anyone who you feel is or may be suggesting engagement in fraudulent activities, or if you are aware of situations which may involve fraud, you must report the incident to your leader or contact the Ethics Office.

Compliance with Domestic and Foreign Laws

We comply with all applicable laws of the countries where we conduct business. Team members should understand and comply with the laws that relate to their work. It is the responsibility of leaders to ensure that members of their team are aware of their responsibilities in this regard and to seek advice from Legal Services, People & Culture,

Regulatory Affairs or Taxation if they are unsure, especially for transactions that cross international borders or involve foreign laws.

Team members should be aware that many countries have laws that regulate the import and export of goods, services, software and technology for a variety of reasons, including national security and foreign policy.

Contributing to our Communities

We are committed to supporting the communities where our team members live and work. We encourage team members to support our communities by volunteering and participating in charitable activities, such as the TELUS Days of Giving.

While representing TELUS and contributing to our communities, we must adhere to the following:

- Adhere to the TELUS values and uphold the standards in this Code to ensure we always represent TELUS in an ethical manner
- Ensure that these outside activities do not interfere with our job performance or create a conflict of interest
- Obtain proper approval through the Community Investment team before donating TELUS funds or making contributions in TELUS' name
- Make it clear that the views expressed through our participation in community activities are our own personal views, not those of TELUS

Competing Ethically/Lawfully/Fairly

We consciously and purposely apply high standards of courtesy, professionalism, fairness and honesty when dealing with partners, suppliers, customers and competitors. We will report unethical practices by any other party to our leader or the TELUS EthicsLine.

Bribes and Facilitation Payments

We do not support any form of dishonesty, including facilitation payments or other types of bribery, kickbacks and extortion, either directly or indirectly through an agent or third party. Local customs do not provide an exception to this requirement. Team members should be aware there are national and international laws regarding bribery and corruption that apply to TELUS and that have significant potential civil and criminal penalties for violations. Team members should refer to the Anti-Bribery and Corruption Policy for further details.

Facilitation payments are typically small, unofficial payments made to secure or expedite the performance of a routine government action by a government employee or official. For example, a team member might be asked for a facilitation payment in order to obtain routine permits to do business, to process visas and work orders, to obtain mail or telephone services, or to expedite shipments through customs. Facilitation payments are bribes and are strictly prohibited, even where they may not be illegal in a particular jurisdiction. By contrast, paying government taxes, fees and other legally required charges would not be considered a facilitation payment. Further guidance on bribes may be found under Gifts and Benefits below and in the Anti-Bribery and Corruption Policy.

Other Parties' Confidential Information

We do not improperly seek corporate trade secrets or confidential information belonging to others. If we receive unsolicited information that appears to be another party's corporate trade secrets or confidential information without the owner's consent, we will immediately inform our leader and not copy, distribute, or use it until we have obtained guidance from our leadership and/or Legal Services. Team members or contractors who have worked for a partner, supplier, customer or competitor will not be requested to provide confidential information about that party. This does not preclude gathering information with the owner's consent or from the public domain. Team members should refer to the TELUS Code of Conduct for Business Sales Activities for further details.

Lawful Competition

We are fair in what we say about others' products and services and we are committed to lawful competition based upon the merits of our products and services and do not support any agreements or actions that restrict or impede fair competition in contravention of applicable law. Competition (anti-trust) law is complex, and global in reach, and its application depends on the facts of a particular case. Team members with sales, marketing and pricing responsibilities, as well as senior leadership, function in areas that tend to involve risks for violating competition laws, particularly matters that include:

- establishing terms and conditions as well as pricing and promotional strategies for TELUS products and services
- developing advertising materials for TELUS products and services
- negotiating, communicating or interacting with competitors
- handling or using data about competitors
- participating in trade associations that include competitors as participants, or
- selecting or negotiating with vendors

Team members performing these functions should consult with Legal Services to ensure they are appropriately educated and trained with respect to competition law, and that they receive appropriate advice and specific guidelines to address relevant competition law issues that are applicable to their situation. Team members are also required to report to Legal Services any contravention or suspected breach of competition law requirements. In addition, it is often essential to involve legal counsel early in the process of developing new commercial initiatives given the many uncertainties that can arise in the application of this area of law.

Dealing with Governments

TELUS values its relationships with governments at all levels. Team members dealing with governments must be aware of legal, regulatory and policy requirements in such areas as lobbying, gifts and benefits, conflict of interest, bribery and corruption, hiring ex-government employees and procurement processes. Team members should also refer to the TELUS Code of Conduct for Business Sales Activities and the Anti-Bribery and Corruption Policy for further details.

TELUS actively and openly communicates with all levels of governments and legislators, expressing views that affect our business and our industry. Team members or consultants/contractors acting on behalf of TELUS will not engage in lobbying activity unless they are registered as lobbyists and authorized to do so by TELUS' Government Relations. Team members having contact with elected officials, their staff, and government employees (including those of Crown Corporations) should consult with the

Government Relations team to ensure compliance with the appropriate lobbying regulations.

Team members should be aware of laws and regulations restricting or prohibiting government officials from accepting gifts or entertainment or from placing those officials in an actual or perceived conflict of interest with regard to their employer.

Team members should be aware of restrictions placed by governments on their former employees from accepting employment or work, or advising or accepting appointment to a board of directors of entities with which they had significant official dealings for a specified period of time after leaving government employment.

Political Activities

As private citizens, we are free to engage in political activities and support causes, candidates or political parties of our choice. Unless expressly approved by TELUS, we will not, however, associate TELUS with our personal political activities. TELUS will not reimburse personal political donations in any form. As a responsible corporate citizen, TELUS will occasionally make contributions to a political party, campaign or candidate in Canada, as a means of supporting the democratic process, but only where legally permitted and not to secure favours or preferential treatment. All political contributions, whether direct, sponsorship or in-kind, must be made through the Government Relations team. No political contributions are permitted in countries other than Canada.

Proprietary Rights and Assets of Others

We respect the proprietary rights and assets of others. These include both tangible properties and intangible assets such as those protected by intellectual property rights. Intellectual property rights include trademarks, copyrights, patents, industrial designs, confidential information, know-how and trade secrets. Examples of assets containing intellectual property rights that we may come across in our work include, but are not limited to, written materials, logos, creative suggestions, pictures, audio and video products and computer software. We respect licenses and conditions of use that apply to the intellectual property of others. Copyright materials are not copied in whole or in part, or used in violation of any law or agreement with vendors, licensors or any other party. Software license conditions may be included in instruction manuals, in separate documents, or on the disk itself, and breaking the seal on a disk package may constitute acceptance of the stated agreement.

Involvement in a legal matter

If you are involved in a legal matter, whether of a civil, criminal or regulatory nature, that has the potential to affect your ability to perform your job or harm the reputation or interests of TELUS, you must immediately inform your leader.

If a team member comes across a suspected illegal activity or material (e.g. child pornography) in the course of their work, they should report it immediately to the TELUS Security Office which will determine the appropriate course of action such as reporting to the appropriate authorities.

Improper Influence on the Conduct of Audits

Team members, or any person acting under the direction of a team member, are prohibited from directly or indirectly taking any action to improperly influence, coerce,

manipulate or mislead the Company's external or internal auditors or their representatives.

Respectful Workplace / Human Rights

We are committed to treating all current, potential and past team members, as well as all partners, suppliers, shareholders, and customers (and others stakeholders) in a non-discriminatory and harassment free manner. In addition, we are committed to maintaining a respectful work environment that supports the contribution, worth and human rights of all team members.

Every team member has the right to a workplace that is free of unacceptable behaviours and has the obligation to treat others in the same manner. Unacceptable behaviours include bullying and discrimination and harassment based on race, national or ethnic origin, colour, religion, age, sex, gender identity, sexual orientation, marital status, family status, disability and conviction for which a pardon has been granted or in respect of which a record suspension has been ordered.

TELUS "work environment" and "workplace" is not limited to TELUS' business premises and is not limited to normal business hours. These terms also encompass any activities or events that happen outside of normal business hours or outside of TELUS business premises, but are linked to

the TELUS workplace and the team member's employment with TELUS.

Though the spirit of the law is the same, the human rights legislation that TELUS companies are subject to may differ slightly, depending on which TELUS company is involved and which jurisdiction it is operating in. For example, some of the grounds for discrimination and harassment may differ slightly. Details are provided in the Respectful Workplace Policy to which team members are referred for more information.

Valuing Diversity and Inclusion

We believe the diversity of our team is a significant competitive advantage and we believe diversity thrives when we respect the traditions, beliefs, lifestyles, abilities and perspectives of all members of our team.

Our commitment to inclusiveness includes the provision of workplace accommodation in accordance with the law to permit qualified persons who face some barrier (e.g. persons with disabilities) to do their jobs. Examples of accommodation may include physical or technical changes to work stations and changes to work duties. Details are provided in the Workplace Accommodation Policy to which Canadian team members are referred for more information. Team members are also referred to the Accessibility Policy.

Health and Safety

We are committed to having healthy and safe operations in all our locations to protect the lives and health of our team members, to protect our assets, to ensure business continuity and to engender public trust. When working on customer premises and public thoroughfares, we safeguard the rights and safety of the customer, the public and ourselves as outlined in the Health and Safety Policy.

We monitor progress towards our objective of preventing injuries, illnesses and incidents and continually assess and improve, where appropriate, our health and safety technologies and programs. We provide training to team members to help them

understand and incorporate safe behaviour in their daily business activities. We have operating standards, practices, systems and resources to implement the Health and Safety Policy.

We are expected to report and to remain fit for work, without any limitation due to the effects of alcohol, illicit drugs, medication, or any other mood altering substance, so that our ability to perform our job is not weakened, diminished, or adversely affected in any way. Our actions with respect to the use of drugs, alcohol, and other mood altering substances not only reflect on us as individuals, but on TELUS as a whole. Team members are referred to the TELUS Alcohol and Drug Corporate Policy for further details.

TELUS is committed to providing a safe and violence-free workplace for all team members. Workplace violence may include conduct such as bullying, teasing, abusive and other aggressive behaviours. Workplace violence is not only an employee health and safety issue, but also may be a criminal law issue. Consequently, workplace violence will not be tolerated and every incident will be investigated. Team members are referred to the Violence Prevention in the Workplace: Investigation and Reporting Policy for further details.

Environment & Sustainability

We believe there is a harmonious relationship between our company, our team and the health and prosperity of our communities and are committed to environmental stewardship and responsible corporate citizenship. We advance this commitment and responsibility through our balanced approach to business, delivering economic growth with a diligent focus on meeting our environmental and social objectives.

TELUS' values are demonstrated by our compliance with applicable environmental legal requirements, our actions to continually improve our environmental performance and build a sustainability culture. Team members are encouraged to consider economic, social and environmental factors in their day-to-day strategic planning, decision making and operations.

Detailed information on our commitment to the environment can be found in our Environmental Policy and the Company's intranet at go/green, where team members will find guidance on our ISO 14001:2004 certified environmental management system and other important resources. Detailed information on our Sustainability strategy and progress can be found in our Sustainability report.

Case Studies

Problem

We recently hired someone who held an executive position with one of our competitors. This person was deeply involved in planning the competitor's expansion strategy and has information that would be very valuable to us. Can we ask her to disclose confidential aspects of this information?

Action

No. The new team member has an obligation to protect her former company's confidential or proprietary information, just as you would be obliged to protect the confidential or proprietary information of TELUS if you were to leave the

company. You must respect the team member's personal integrity as well as her obligation to his former employer.

Problem

I become aware that a team member is disclosing third party (competitors, suppliers, customers, etc.) confidential information to other TELUS team members. What should I do?

Action

Report this to your leader and the EthicsLine immediately. TELUS' reputation could be significantly harmed by such disclosure, and this could also expose TELUS to potential legal action. Taking immediate steps to contain the confidential information is critical.

Problem

My leader frequently makes racist comments about one of my co-workers. This personally offends me but, because my leader is involved, I don't feel I can speak up. What should I do?

Action

Racist comments are unacceptable. You have a right to express your disapproval of such comments — without fear of reprisal. If you are uncomfortable approaching your leader, you should speak to the Respectful Workplace Office in People & Culture or your leader's leader.

Problem

We use a contractor to dispose of hazardous materials such as lead. I know the contractor's crew chief and I get the feeling that they may not be disposing of the materials correctly, at least not according to the law. Should I care about this? After all, it is not my company and they are probably saving us money.

Action

Yes, you should care because what the contractor is doing may expose TELUS to liability. In addition, improper waste disposal is inconsistent with our commitment to sustainable practices and to reduce the environmental impact of our activities. If team members believe someone we work with is doing something wrong they should talk with their leader, the TELUS Environment department or call the EthicsLine.

Company Assets and Information

Company assets are both physical (e.g. equipment, supplies, tools, funds, communications networks, real estate) and non-physical (e.g. software, non-public information, electronic records, intellectual property, brand, goodwill, reputation). We take appropriate care to protect Company assets against undue risks, exposures and liabilities.

Company Information

As team members of TELUS, we have access to information about our company that belongs to TELUS and is used by the company for its business. Unless specifically published for external use and public dissemination has occurred, all Company records, information, reports, data, plans, processes and methods are considered Company

information and are prohibited from disclosure without proper authorization. Access should be limited to those team members with a legitimate business reason to know the information. Team members are referred to the Corporate Security policies for further details on the classification and safeguarding of TELUS' information assets.

Team members and past team members must not use or disclose Company trade secrets, competitive information or other confidential and/or proprietary information to benefit themselves or others. In situations where we would be willing to share information, Legal Services can assist in preparing a confidentiality agreement or license agreement to protect TELUS.

To protect the safety and integrity of our networks, only approved software is to be used on TELUS equipment. No team member should knowingly install or use a software program or code that could damage TELUS' information assets. All team members are responsible for taking reasonable measures to ensure that software and data is clear of malicious code and safe for use in TELUS' electronic data processing environment.

Public Disclosure

TELUS is subject to strict securities rules regarding disclosure of financial and other material information to the public. Selective disclosure of confidential information by any team member can create liabilities for TELUS and for that team member. All discussions about TELUS in a public environment should comply with the Policy on Corporate Disclosure and Confidentiality of Information, to which team members should refer to for further details.

Examples of situations that may lead to inappropriate public disclosure include:

- Participating in an investment-related discussion forum, social networking site, chat room, blog or bulletin board on the Internet. The team member must not discuss any confidential information about TELUS when participating in these activities.

- Discussion regarding TELUS with a member of the investment community or the media. All inquiries from these groups must be referred to those team members specifically trained and authorized to communicate on behalf of TELUS. For further information, contact Investor Relations or Corporate Communications.
- Presentations to business, educational, community groups or large internal TELUS audiences. Team members invited to make such presentations should receive approval from the Vice President Investor Relations prior to accepting the invitation. In addition, all such public speeches and presentations must be provided in advance to Investor Relations for review where requested by them.

Business Records

Accurate and reliable records are essential to enable us to meet our business, legal and financial obligations. We strive to ensure all reports (whether for external or internal use), records and other data are factual, complete, timely and understandable. Restricted and confidential information should be properly identified and respected as such as outlined in our Security Policies.

Every business needs an orderly process for retaining and disposing of records and documents in order to comply with legal and regulatory requirements. Team members are referred to the Records Retention Policy for guidance on minimum and maximum retention periods, storage of records, and suspension of records destruction due to a

potential or on-going litigation matter or investigation and where to obtain further information.

It is a violation of this Code as well as other TELUS policies to create false or misleading company records or documents (including, for example, contracts, orders, time sheets, benefit claims, adjustments and expense statements).

Financial Transactions

All team members are expected to understand their role and responsibility for the Company's financial transactions and records and follow approved procedures to protect, report, control and accurately reflect these transactions. Team members are referred to the Signing Authority Policy and other Finance policies for further details.

It is a violation of the Corporate Credit Card Policy and /or Employee Expense Policy to misuse company-issued credit cards or make misrepresentations on expense statements.

We also do not tamper with the network or systems to bypass billing and we do not make unauthorized charges or credits to customer accounts.

Team members whose duties involve authentication and approval are responsible for the close scrutiny and timely verification of all documents upon which monies are paid or received in compliance with TELUS policies.

Safeguarding Assets

We display pride of ownership on behalf of the TELUS team as we protect Company facilities, equipment, tools, supplies, vehicles, funds, communication networks and information systems against loss, theft, damage, vandalism, neglect, unauthorized use and unauthorized disposal.

Team members are expected to take reasonable measures to safeguard access controls such as passwords, identification cards, keys, cards and hand-held user authentication devices. It is also important that we not share our company-provided computer or other communication devices or their access passwords. Team members are the first line of defense in protecting TELUS assets. Team members must also ensure they do not compromise security of sites by leaving access doors open and unattended.

Intellectual Property

Our intellectual property is a valuable TELUS asset. Intellectual property rights enable TELUS to be known and recognized in the market place and help distinguish our products and services from those of our competitors. Intellectual property rights also protect the valuable intangible assets generated or acquired by the TELUS team. At TELUS, we work together to protect our intellectual property just as we respect the proprietary rights of others as noted above.

Intellectual property rights include trademarks, copyrights, patents, industrial designs, confidential information, know-how and trade secrets. Examples of materials involving intellectual property rights that we may come across in our work include, but are not limited to, branding, logos, creative suggestions and ideas, pictures, audio and video products, written materials and computer software. When we create intellectual property

— individually or as part of a team — this property is owned by TELUS and we work to document the ownership of such intellectual property.

Team members should contact Legal Services for further information about intellectual property matters or the Brand Office for information on use of our brand.

Personal Use of Communication Devices

In our future friendly world, communication equipment and devices (whether the Company's or our own) are used for both business and personal

purposes. Electronic communication may occur via a wide range of devices including, but not limited to, computers, telephones, smartphones, webcams and fax machines. This can take the form of emails, texting, Internet searches, photographs, videos, audio files, blogs, social networking, peer-to-peer file transfers and physical exchange of media (e.g., CD's, USB storage devices and devices such as iPods). As we communicate in any of these ways, we may identify ourselves as TELUS team members either by naming the company or by virtue of email or IP addresses.

While we permit team members to use TELUS-provided communications equipment and devices for personal purposes, such use should be limited, should not interfere with our duties or negatively impact TELUS in any way. We expect any such personal use to take place on your own personal time, or during reasonable permitted breaks from work, subject to local leadership approval and the needs of the business.

Team members must comply with all TELUS policies when using TELUS-provided communication devices for personal use. We are responsible for all of our actions while using such devices.

TELUS uses automated tools to log team member use of its networks (e.g. voice, email, messaging, Intranet and Internet) and related equipment and devices and to monitor traffic (including content) on its networks in order to detect security threats and other problems. While TELUS does not actively monitor employee email, messaging, telephone and internet access, TELUS does reserve the right to do so. Team members are referred to the Corporate Security policies for further details on the acceptable use of company-provided equipment and devices and to the Social Media Guidelines for more information on blogs, wikis and social networking. Improper use of the Company's networks, equipment and devices may result in disciplinary action up to and including dismissal for just cause.

In our personal electronic communications using either TELUS-provided devices or personal devices where we are identified as a TELUS team member, we should:

- Remember that these communications provide a permanent record and we may be operating in a public space.
- Use common sense when offering personal opinions to avoid subjecting either TELUS or ourselves to legal action. To help avoid confusion, and depending on the circumstances, it may be appropriate to add the following notice: "the views expressed on this website/weblog/email are mine alone and do not necessarily reflect the views of my employer".
- Not disclose information that is confidential to TELUS or provided in confidence to TELUS.

- Show respect towards other persons and organizations and avoid defamatory, discriminatory, harassing or sexual messages.
- Avoid offensive content of any kind, including pornography and materials promoting violence, discrimination or hatred.
- Not display the TELUS logo or brand images in personal communications without written permission from a senior leader or the Brand Office.
- Not disclose personal information about ourselves that we do not want the public to be aware of, nor disclose personal information about others.

Case Studies

Problem

I have a friend who is starting a new business and has asked me for a list of TELUS customers who might be interested in her services. Is it ok to provide a list of potential customers?

Action

No. Customer information is private and should never be shared with anyone outside TELUS (or with anyone inside TELUS who does not need the information to do their job).

Problem

I am a member of a team working on a part of the quarterly financial results. In the course of my work, I regularly see the draft package of all the results before they are approved for release. One evening, my neighbor asks me, "How is TELUS doing these days?" In this casual conversation, is it acceptable if I answer, "Well, I can tell you one thing: the results are really good this quarter."

Action

No, this is not acceptable. This information is not yet public and therefore it should be regarded as confidential and/or proprietary company information. In addition, if this information is material (i.e. would reasonably be expected to have a significant effect on the value or price of TELUS shares), you would be engaging in "tipping" in violation of securities law and the Policy on Corporate Disclosure and Confidentiality of Information.

Problem

I would like to search for a new car on the Internet and compare notes with friends on a social networking site. Is this allowed from my workstation?

Action

It depends. Reasonable personal use of your TELUS-provided communication equipment or device to access the Internet is allowed provided it complies with our policies, is carried out during personal time or permitted breaks, does not interfere with your work or negatively impact TELUS in any way. Remember that business needs must take priority in the allocation of our time at work.

Problem

While surfing the web, I came across a forum where people discuss TELUS products and services. I saw questions, praise for TELUS and some criticism of TELUS. What should I do?

Action

Unless you are a specifically authorized TELUS spokesperson in this forum, we encourage you not to participate in discussions about TELUS on the Internet. You may open yourself and TELUS to unacceptable risk since you may inadvertently disclose confidential information about TELUS as you defend the company or be viewed as speaking on behalf of TELUS when you have not been authorized to do so.

If you do participate in such discussions in a personal capacity (i.e. not identified as a TELUS team member) you may not discuss confidential information about TELUS.

If you are providing a positive review of TELUS products and services, or endorsing or recommending TELUS products and services, you must identify that you work for TELUS. Best practice however is that you should refrain from reviewing or commenting on TELUS products or services in social media or public forum platforms altogether as discussion of our products or services online could be perceived as providing a biased or misleading opinion.

Conflict of Interest

As team members, our first business loyalty must be to TELUS. We must avoid situations or relationships that conflict with the interests of the Company and our duties to TELUS. A conflict arises whenever we allow, or appear to allow, personal interests or relationships to impair our judgment and ability to make work related decisions with integrity and honesty. By thinking of ourselves first, we may act in a way that is damaging, or potentially damaging, to TELUS. We may also harm our personal reputation. In such circumstances, team members must take action to eliminate the conflict of interest or the perception of a conflict of interest.

As team members, we must disclose actual or potential conflicts of interest to our leader. Each situation must be considered individually and the potential for conflict of interest determined based on the parties involved, level of access to business information, decision-making authority, job duties/responsibilities, position within the organization and potential impact on others. If team members find themselves in a conflict or are unsure of whether a situation would be deemed to be a conflict of interest, they should complete a “Conflict of Interest Disclosure Form” available on the Company intranet and submit it to the Ethics Office.

The following is intended as a guide in those areas in which conflicts of interest most often arise. It is not intended to be definitive or all-inclusive, as guidelines cannot cover every situation that could give rise to a conflict of interest.

Personal Gain

Conflict of interest may occur when a team member or family member gains a personal benefit from: (a) a business relationship with TELUS, or (b) from an outside business with which TELUS has a relationship such as a partner, supplier, customer, competitor,

contractor, consultant, agent, or dealer. This personal benefit may take the form of an ownership interest in, or a role as a director, officer or employee of, an entity that is engaged in a business relationship with TELUS.

Team Members may not:

- be involved in any negotiations or transactions on behalf of TELUS with partners, suppliers, customers, contractors, consultants, agents, or outside parties where the team member has a personal, commercial or financial interest in the outcome of the negotiations, or transactions unrelated to their role at TELUS.
- access or make adjustments to their own TELUS accounts or services or those of their family or friends.

This guideline does not prohibit team members from holding publicly traded shares of an entity with which TELUS has a business relationship or a competitor provided that the team member does not have a significant investment in the entity and does not acquire the shares based on material undisclosed confidential information obtained as a result of employment with TELUS or by being a member of the Board of a TELUS company.

Family Members and Personal Relationships

A conflict of interest may occur when a team member has the ability to enhance or promote the interests of a family member.

Team members may not:

- participate in a decision to hire, transfer or promote a family member, or be in a position of direct or indirect influence over a family member who is an employee or contractor of TELUS Team members recommending the hire of an employee or retainer of a contractor

must disclose any current or past relationships, both professional and personal.
- supervise a family member nor have direct or indirect authority over employment or contract-related decisions that impact a family member such as pay, performance ratings, work assignments, discipline, training or termination.
- access or make adjustments to the accounts or services of family members, friends, co-workers or acquaintances without authorization from their leader. Team members in Customer Solutions Delivery may only do so if specifically authorized by trouble ticket or customer order and authorization is gained from their leader.

For the purposes of this part of the Code, “Family member” is defined as a spouse (including common-law spouse and same-sex partner), child, stepchild, parent, sibling, niece, nephew, aunt, uncle, cousin, grandparent, grandchild, in-law (including mother-in-law, father-in-law, son-in-law, daughter-in-law, sister-in-law and brother-in-law). It also includes close personal friendships and any person (other than domestic employees) residing in the same household as the TELUS team member.

Situations may arise where broader familial relationships, friendships and other close personal associations (e.g. persons residing in same household as the TELUS team member) cause real or perceived conflicts of interest or the possibility of real or perceived improper influence. Team members should be sensitive to these concerns and demonstrate good business judgment in the best interest of TELUS and in keeping

with the spirit and intent of this Code. Any uncertainty should be discussed with the appropriate People & Culture business partner or with the Ethics Office.

TELUS Board members must disclose any family or personal relationship with TELUS team members or with TELUS job applicants to the Chair of the Corporate Governance Committee of the Board in order that the Committee may determine whether the relationship impacts the Director’s independent status.

Board members, executives and senior leaders have a duty to disclose whether they have a relationship with the Company’s external auditor.

Outside employment and other non-TELUS activities

As team members, we are free to engage in outside business activities on our own time. However, these activities must not conflict, or have the potential to conflict, with TELUS’ best interests or with our ability to perform our job for TELUS. As a general guideline, team members may not work for, or be engaged in business activities for, enterprises that are competitors or suppliers of TELUS. A conflict may also arise if, for example, we use assets such as our corporate phone or laptop, or tools paid for or developed by TELUS, when engaged in such outside business activities. If you are considering starting your own business or accepting a second job, you are required to advise your leader to ensure there is no conflict of interest.

Working for an independent TELUS dealer and TELUS at the same time is a conflict of interest and is not permitted.

(Working for a provincially regulated TELUS entity, such as TELUS Retail Limited, and TELUS at the same time is also not permitted).

It is a conflict of interest to have an outside interest that demands so much time and energy that it interferes with the team member’s ability to complete their TELUS work.

This could include any personal, community and charitable activities that require time and effort during normal working hours, except for situations where the individual is acting in a representative capacity at the request of TELUS with the explicit and written permission of their leader.

Future TELUS Business

Over time, TELUS may expand into new businesses or change its product lines or services. Team members are responsible for re-examining their individual situations on a regular basis to avoid becoming involved in a conflict of interest situation where no such conflict previously existed.

Information

Team members may not disclose or use for any personal reason, including personal gain, any confidential information (including competitive intelligence) obtained through employment with TELUS or by being a member of the Board of a TELUS company.

Insider Trading

As detailed in the TELUS Insider Trading Policy and summarized here, team members may not trade in shares or other securities of TELUS or any other company while in possession of undisclosed material information relative to the company whose securities are being traded. Nor may team members inform any other person, including their

family, of any undisclosed material information except in very limited circumstances. Please see the TELUS Insider Trading Policy and the TELUS Policy on Disclosure and Confidentiality of Information for more information.

Material information in respect of a company is information that could reasonably be expected to have a significant effect on the market price or value of any securities of that company.

Gifts and Benefits

A gift can be anything of value. A gift may include tangible items, but not limited to, items such as cash, jewelry and art.

A benefit includes intangible items such as discounts, services, loans, favours, special privileges, preferential treatment, advantages, and rights that are not available to the general public. They include invitations to sporting, cultural, charitable or social events, or access to discounts and loyalty programs. While their value may sometimes be difficult to quantify in dollars, they may be highly valued by the intended recipient and therefore used to take advantage or influence their behaviour. Accepting substantial gifts from contractors, suppliers, vendors, community partners could be seen as “presumptively fraudulent” because of the potential to create undue influence. If ever unsure of an offering, please contact your leader or the Ethics Office.

It is important to remember that “anything of value” can also include things that benefit the recipient’s family members or friends.

TELUS team members shall not authorize, offer or accept, directly or indirectly, gifts, or benefits to or from any organization or person having business dealings with TELUS other than as described below. These guidelines apply at all times and do not change during traditional giving events or seasons.

It is not a conflict of interest to authorize, offer or accept hospitality or entertainment or to offer a discount or gift certificate for TELUS products and services, provided it is reasonable, and is within the limits of responsible and generally accepted business practices. However, team members should not authorize, offer or accept gifts or benefits that are intended to influence, or appear to influence, a particular business decision.

Gifts of cash or cash equivalent (such as a gift card) should not be authorized, offered or accepted, regardless of the amount.

Reasonable gifts and entertainment are courtesies intended to engender goodwill and positive working relationships among business partners. We do not, however, want to use improper means to obtain business or gain any special advantage in a business relationship or put ourselves in a situation where we feel a sense of obligation created by accepting a gift.

Gifts and benefits that are acceptable for TELUS team members to authorize, offer or accept in the normal course of business are typically less than $250 Canadian or the close equivalent in other currencies and include:

- Attendance at local sporting or cultural events
- Business lunches or dinners
- Transportation to or from the customer’s or supplier’s place of business

- Hospitality suites
- Small seasonal holiday gifts or prizes to be used in office draws and raffles

Business meals and entertainment provided by external parties must be unsolicited, infrequent with any particular business or person, in good taste, and undertaken for legitimate business reasons, including engendering goodwill. If the provider of the meal or entertainment is not in attendance, it is considered a gift and can only be of nominal value.

If you are not sure whether a gift or benefit is acceptable, ask yourself:

- Would the gift be considered customary given the nature of your role with TELUS?
- If the gift or benefit was reported in the media or to the TELUS President and CEO, would the perception be neutral or positive?
- Would the gift complement or enhance a business relationship?
- For offers of hospitality or entertainment, is the person extending the offer attending with you?

If the answers to these questions are “yes,” and based on your good faith assessment, you may accept the gift.

If the answers to these questions are “no”, you should politely decline the gifts or entertainment. If that would be difficult or embarrassing to the provider, ask your leader or contact the Ethics Office for advice.

It is important to remember that while something less than $250 is typically considered an acceptable value for a gift or benefit, in certain circumstances it may be considered a bribe (and therefore not permitted) since a bribe does not have a specific minimum value. A bribe is any payment, gift or benefit intended to influence the judgment or conduct of a person in a position of power, authority or trust to try to obtain a business advantage. It also includes a payment, gift or other benefit that is intended to reward a person for a business advantage that has already been given. As mentioned above in the context of facilitation payments, bribe amounts can often be relatively small. The determining element is the exchange of personal benefit for business advantage. Reasonable hospitality conferred with a view to engendering goodwill and without an expectation of a specific business advantage in return is not a bribe.

It may be appropriate to attend third-party paid seminars, conferences or vendor-hosted events if there is a clear benefit to TELUS for attending and the attendance is approved in advance by the team member’s leader. To avoid a real or perceived conflict of interest, team members should consider having TELUS fund incremental expenses (e.g. airfare and hotel).

Team members with supplier selection, negotiation, purchasing or contract management roles within TELUS are subject to more stringent professional purchasing requirements regarding gifts and benefits and maintaining appropriate relationships with suppliers and should therefore not accept any gifts or benefits from suppliers or potential suppliers without the explicit and written permission of their leader. Where the value of any gift or benefit is $250 or greater, the leader must also provide a copy of their authorization of that particular gift or benefit to the Ethics Office

including a description of the gift or

benefit, approximate value, the name of the party conferring the gift or benefit and the reason).

Team members with supplier selection, negotiation, purchasing or contract management roles are not limited to team members within the Procurement and Supply Chain Management team, but include team members in any area of TELUS that have the ability to either make or influence decisions around matters including:

- the selection of suppliers, including service providers such as law firms, accounting firms, IT professionals, consultants, and suppliers of any type of hardware, software, equipment or other tangible items;
- the negotiation of contract terms with one or more supplier(s);
- the volume of goods or services to be purchased or acquired from one or more supplier(s); or
- the ongoing management of the relationship with one or more supplier(s), including decisions whether to renew or terminate any such relationship.

Case Studies

Problem

A vendor has offered me tickets to a local hockey game. Can I accept them?

Action

Possibly. If the vendor is inviting you to attend the game with a representative of the vendor, this may be acceptable business entertainment providing that it is:

· undertaken for business reasons, including engendering goodwill
· infrequent
· without intent of influencing business decisions
· consistent with our Code and values

If the vendor is not attending, then the tickets would be considered a gift and must comply with the Gifts and Benefits guidelines.

Problem

I work in a senior marketing position at TELUS and operate my own business after hours. Though I use my marketing skills, the business in no way competes with TELUS business and does not affect my ability to perform my duties at TELUS. I started small, working out of my basement, but my business is gradually generating more and more revenue. I am considering hiring a part-time manager, as I am not ready to leave my full-time employment. Once my own business can pay me as much as TELUS does, I will devote my full attention to it. I have the best of both worlds - a salary from TELUS and a blossoming business for future security. Is this a conflict of interest?

Action

No. If, however, TELUS decides in the future to enter the same line of business that your company is in, you will be in a conflict of interest position, even though you were in that business first. You must then decide which of your two interests, your own company or your employer's, will receive your full attention. Since TELUS is not currently in the same line of business as your company, you are operating ethically, as long as it remains an after-hours pursuit and does not

interfere with your ability to perform your job for TELUS to the best of your abilities.

Problem

I recently married the owner of a local franchise selling a competitor's cellular phone service. We have agreed not to talk about our days at work. Recently, my leader advised me that I could be in a conflict of interest position. What should I do?

Action

You are in a situation that may leave the impression of a conflict of interest. Even though you and your new spouse have decided not to talk about your business lives, people outside the marriage—including your employer—may perceive you are in a conflict of interest position. You should discuss your situation further with your leader and the Ethics Office as necessary and identify the extent to which your access to TELUS' information could benefit your spouse's company and develop alternatives to avoid any appearance of a conflict of interest.

Problem

I install telecommunications inside wiring for TELUS small and medium-sized business customers. With the growth of communications services, demand for my expertise is booming. Can I take advantage of this opportunity and start up an installation business on my own time?

Action

No. You cannot engage in any outside activity that might take business away from TELUS or any of its subsidiaries.

Problem

Part of my job involves the selection of technology suppliers. One day, a technology supplier phoned me and offered me and my family free use of his luxury vacation condominium. He says he is not using it and it would be a shame to have it sit empty. Can I accept the offer to use the supplier's condominium?

Action

No. The supplier has made a very generous offer which could appear to be offered in exchange for future special treatment from you in your position with TELUS. You should decline the offer.

Problem

While at lunch, I overheard a conversation between two other TELUS team members regarding company plans to make a minority investment in a business that develops communications software. Can I buy shares in the software company or suggest to my spouse that she do so?

Action

No. Although you found out about TELUS' planned investment by accident, you are prohibited from buying shares by virtue of the fact that you are a member of the TELUS team. Your spouse is also prohibited, because she would be obtaining information about the proposed investment from you, a TELUS team member. However, you and your spouse will be able to buy shares when TELUS' investment in the software company becomes publicly disclosed.

Problem

As a network engineer with TELUS, I have significant influence over the selection of the company's suppliers. I have known the owner of one of TELUS' suppliers since we were kids and have always maintained a close personal relationship. I have no personal, commercial or financial interest in the supplier. Is there still an appearance of conflict?

Action

Yes. Although you may not have a personal, commercial or financial interest in the outcome of the business relationship with this person, there may still be an appearance of bias or preferential treatment towards their company. You must eliminate the perception of conflict of interest by removing yourself from any selection process involving that company or by having a second person (a superior or a peer) co-approve the supplier selection decision.

Problem

I am a customer service manager with TELUS and my nephew is seeking employment as an engineer with TELUS. Am I able to recommend him for employment?

Action

Yes. To avoid a conflict of interest, you should have no involvement in the selection decision. However, you may provide a written personal reference to the appropriate People & Culture recruiter.

Problem

I am travelling abroad later this month and need to get a work visa quickly. The person processing my request at the embassy has said that they can speed up the process if I pay a small fee in cash. Is this okay?

Action

It depends. If it is an official fee that the embassy charges for published "fast-track" services, payment of this fee would be O.K. However, if it is a payment to the person processing the request, then it is a bribe and prohibited. You must ask for a receipt or other official documentation as proof that the fee is legitimate. If the person will not provide any official documentation for the payment and you are uncertain whether it is legitimate, you should first consult with your leader or the Data & Trust Office.

Dealing with Suppliers

We value our relationship with suppliers (including contractors and consultants) and those acting on behalf of TELUS because they contribute to our overall success. We strive to ensure our business dealings with them are ethical and that they understand our expectations of them as outlined in our Supplier Code of Conduct.

Selecting Suppliers

- We strive to award business to suppliers who are in compliance with applicable laws in their business operations, including in their relationships with their employees, their communities and TELUS.

- We strive to select our suppliers based upon objective and fair criteria including, but not necessarily limited to, business need, price, service, quality, reputation for ethical conduct and health, safety and environmental business considerations.

Adherence to applicable TELUS policies

- We expect the suppliers with whom we do business to demonstrate values and standards similar to those in the applicable TELUS policies.
- We strive to ensure that our suppliers are made aware of TELUS policies that are applicable to the work for which they are being engaged.

Supplier-funded incentive programs

- Supplier-funded incentive programs, often offered to our sales team by suppliers seeking to sell their products and services, must be approved in advance by an authorized program administrator who does not work with the eligible team members.

Review Guidelines and Policies

If you need further assistance, consider the following additional policies as they may apply to your situation.

Accessibility Policy
Alcohol and Drug Corporate Policy
Anti-Bribery and Corruption Policy
Attendance Policy
Code of Conduct for Business Sales Activities
Corporate Credit Card Policy
Policy on Corporate Disclosure and Confidentiality of Information
Corporate Security Policies and Corporate Security Manual
Employee Expense Policy
Environmental Policy
Hiring Processes & Guidelines
Insider Trading Policy
Policy on TELUS and the Charter of the French Language
Procurement Policies
Records Retention Policy
Respectful Workplace Policy
Signing Authority Policy
Social Media Guidelines
Supplier Code of Conduct
TELUS Health and Safety Policy
TELUS Privacy Code
Violence Prevention in the Workplace: Investigation and Reporting Policy
Workplace Accommodation Policy
Work Styles Policy