

TELUS CORPORATION
Management's discussion and analysis
2021 Q3

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 document contains forward-looking statements about expected events and our financial and operating performance. 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 plans and expectations regarding the impact of the COVID-19 pandemic and responses to it, our expectations regarding mobile data consumption and ongoing internet subscriber base growth, and our multi-year dividend growth 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*. These statements are made pursuant to the “safe harbour” provisions of applicable securities laws in Canada and the United States *Private Securities Litigation Reform Act of 1995*.

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 expectations expressed in or implied by the forward-looking statements. Updates to the assumptions on which our 2021 outlook is based are presented in *Section 9 Update to general trends, outlook and assumptions, and regulatory developments and proceedings* in this Management’s discussion and analysis (MD&A).

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

- The COVID-19 pandemic including its impacts on our customers, suppliers and vendors, our team members and our communities, as well as changes resulting from the pandemic to our business and operations including to the demand for and supply of the products and services that we offer and the channels through which we offer them.
- Regulatory decisions and developments including: changes to our regulatory regime (the timing of announcement or implementation of which are uncertain) or the outcomes of proceedings, cases or inquiries relating to its application, including but not limited to those set out in *Section 9.1 Communications industry regulatory developments and proceedings* in this MD&A, such as the potential for government to allow consolidation of competitors in our industry or conversely for government intervention to further increase competition, for example, through mandated wholesale access; the potential for additional government intervention on pricing, including the March 2020 announcement by the federal government (reiterated in June 2020) targeting a 25% price reduction over a two-year period by the national wireless carriers in postpaid mobile bring-your-own-device wireless plans using between 2 to 6 GB of data; federal and provincial consumer protection legislation and the possible re-introduction by the federal government of privacy legislation to give consumers new privacy rights and to impose new monetary penalties for non-compliance after Bill C-11, the *Digital Charter Implementation Act, 2020*, did not pass prior to parliament proroguing for the recent federal election; amendments to existing federal legislation; potential threats to unitary federal regulatory authority over communications in Canada; potential threats to the CRTC’s ability to enforce the *Wholesale Code*, which aims to ensure the fair treatment by vertically integrated firms of rival broadcasting distributors and programming services; regulatory action by the Competition Bureau or other regulatory agencies; spectrum and compliance with licences, including our compliance with licence conditions, changes to spectrum licence fees, spectrum policy determinations such as restrictions on the purchase, sale, subordination, use and transfer of spectrum licences (e.g. 3500 MHz band), the cost, availability and timing of spectrum, and ongoing and future consultations and decisions on spectrum licensing and policy frameworks, auctions and allocation; the impact on us and other Canadian telecommunications carriers of government or regulatory actions with respect to certain countries or suppliers, including U.S. federal regulations pertaining to certain technology transactions deemed to constitute national security risks and the imposition of additional licence requirements on the export, re-export and transfer of goods, services and technology to Huawei Technologies Co. Ltd. and its non-U.S. affiliates, and decisions of other foreign governments, which could result in a general shortage of chipsets and other equipment; restrictions on non-Canadian ownership and control of the common shares of TELUS Corporation (Common Shares) and the ongoing monitoring of and compliance with such restrictions; unanticipated changes to the current copyright regime; and our ability to comply with complex and changing regulation of the healthcare and medical devices industry in the jurisdictions in which we operate, including as an operator of health clinics. The jurisdictions in which we operate, as well as the contracts that we enter into (particularly those of TELUS International (Cda) Inc.’s (TELUS International or TI) business), require us to comply with or facilitate our clients’ compliance with numerous, complex and sometimes conflicting legal regimes, both domestically and internationally. See *TELUS International’s financial performance which impacts our financial performance* below.
- Competitive environment including: our ability to continue to retain customers through an enhanced customer service experience that is differentiated from our competitors, including through the deployment and operation of evolving network infrastructure; intense competition, including the ability of industry competitors to successfully combine a mix of new service offerings and, in some cases, under one bundled and/or discounted monthly rate, along with their existing services; the success of new products, services and supporting systems, such as home automation, security and Internet of Things (IoT) services for internet-connected devices; continued intense competition across all services among telecommunications companies, cable companies, other communications companies and over-the-top (OTT) services, which, among other things, places pressures on current and future average billing per subscriber per month (ABPU), average revenue per subscriber per month (ARPU), cost of acquisition, cost of retention and churn rate for all services, as do market conditions, government actions, customer usage patterns, increased data bucket sizes or flat-rate pricing trends for voice and data, inclusive rate plans for voice and data and availability of Wi-Fi networks

for data; consolidation, mergers and acquisitions of industry competitors; subscriber additions, losses and retention volumes; our ability to obtain and offer content on a timely basis across multiple devices on mobile and TV platforms at a reasonable cost as content costs per unit continue to grow; vertical integration in the broadcasting industry resulting in competitors owning broadcast content services, and timely and effective enforcement of related regulatory safeguards; TI’s ability to compete with professional services companies that offer consulting services, information technology companies with digital capabilities, and traditional contact center and business process outsourcing companies that are expanding their capabilities to offer higher-margin and higher-growth digital services; in our TELUS Health business, our ability to compete with other providers of electronic medical records and pharmacy management products, claims adjudicators, systems integrators and health service providers including those that own a vertically integrated mix of health services delivery, IT solutions, and related services, global providers that could achieve expanded Canadian footprints, and in the provision of virtual healthcare services, preventative health services and personal emergency response services; and in our TELUS Agriculture business, while we maintain a broad solution set as compared to other agriculture technology providers, our ability to compete with focused software and IoT competitors.

- Technological substitution including: reduced utilization and increased commoditization of traditional fixed voice services (local and long distance) resulting from impacts of OTT applications and mobile substitution; a declining overall market for TV services, including as a result of content piracy and signal theft, a rise in OTT direct-to-consumer video offerings and virtual multichannel video programming distribution platforms; the increasing number of households that have only mobile and/or internet-based telephone services; potential declines in ABPU and ARPU as a result of, among other factors, substitution by messaging and OTT applications; substitution by increasingly available Wi-Fi services; and disruptive technologies, such as OTT IP services, including software-defined networks in the business market, that may displace or cause us to reprice our existing data services, and self-installed technology solutions.
- Challenges to our ability to deploy technology including: high subscriber demand for data that challenges wireless networks and spectrum capacity levels and may be accompanied by increases in delivery cost; our reliance on information technology and our ability to streamline our legacy systems; the roll-out, anticipated benefits and efficiencies, and the evolution of wireless broadband technologies and systems, including video distribution platforms and telecommunications network technologies (broadband initiatives, such as fibre-to-the-premises (FTTP), wireless small-cell deployment, 5G wireless and availability of resources and our ability to build out adequate broadband capacity); our reliance on wireless network access agreements, which have facilitated our deployment of wireless technologies; our choice of suppliers and those suppliers’ ability to maintain and service their product lines, which could affect the success of upgrades to, and evolution of, technology that we offer; supplier limitations and concentration and market power for products such as network equipment, TELUS TV® and wireless handsets; our expected long-term need to acquire additional spectrum capacity through future spectrum auctions and from third parties to address increasing demand for data and our ability to utilize spectrum we acquire; deployment and operation of new wireline broadband network technologies at a reasonable cost and the availability and success of new products and services to be rolled out using such network technologies; network reliability and change management; and our deployment of self-learning tools and automation that may change the way we interact with customers.
- Capital expenditure levels and potential outlays for spectrum licences in auctions or purchases from third parties, affect and are affected by: our broadband initiatives, including connecting more homes and businesses directly to fibre; our ongoing deployment of newer wireless technologies, including wireless small cells to improve coverage and capacity; investments in network resiliency and reliability, including to address changes in usage resulting from restrictions imposed in response to the COVID-19 pandemic; the allocation of resources to acquisitions and future wireless spectrum auctions held by Innovation, Science and Economic Development Canada (ISED), including the 3500 MHz spectrum auction that took place in June and July 2021, the announcement of a second consultation on the auctioning of the 3800 MHz spectrum, which the Minister of Innovation, Science and Industry stated is expected to take place in 2023, and the millimetre wave spectrum auction, which is expected to commence in 2024. Our capital expenditure levels could be impacted if we do not achieve our targeted operational and financial results or by changes to our regulatory environment.
- Operational performance and business combination risks including: our reliance on legacy systems and ability to implement and support new products and services and business operations in a timely manner; our ability to manage the requirements of large enterprise deals; our ability to implement effective change management for system replacements and upgrades, process redesigns and business integrations (such as our ability to successfully complete and integrate acquisitions into our operations and culture, complete divestitures or establish partnerships in a timely manner and realize expected strategic benefits, including those following compliance with any regulatory orders); our ability to identify and manage new risks inherent in new service offerings that we may provide, including as a result of acquisitions, which could result in damage to our brand, our business in the relevant area or as a whole, and additional exposure to litigation or regulatory proceedings; and our ability to effectively manage our infrastructure and team member expansion.
- Data protection including risks that malfunctions or unlawful acts could result in unauthorized access to, change, loss, or distribution of data, which may compromise the privacy of individuals and could result in financial loss and harm to our reputation and brand.
- Security threats including intentional damage or unauthorized access or attempted access to our physical assets or our IT systems and networks, or those of our customers or vendors, which could prevent us from providing reliable service or result in unauthorized access to our information or that of our customers.
- 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 financial results; business integrations; business

product simplification; business process automation and outsourcing; offshoring and reorganizations; procurement initiatives; and real estate rationalization.

- Foreign operations and our ability to successfully manage operations in foreign jurisdictions, including managing risks such as currency fluctuations and exposure to various economic, international trade, political and other risks of doing business globally. See also *TELUS International’s financial performance which impacts our financial performance*.
- Business continuity events including: our ability to maintain customer service and operate our network in the event of human error or human-caused threats, such as cyberattacks and equipment failures that could cause various degrees of network outages; technical disruptions and infrastructure breakdowns; supply chain disruptions, delays and economics, including as a result of government restrictions or trade actions; natural disaster threats; extreme weather events; epidemics; pandemics (including the ongoing COVID-19 pandemic); political instability in certain international locations; information security and privacy breaches, including data loss or theft of data; and the completeness and effectiveness of business continuity and disaster recovery plans and responses.
- TELUS International’s financial performance which impacts our financial performance. Factors that may affect TI’s financial performance are described in TI’s public filings available on SEDAR and EDGAR and may include: intense competition from companies offering similar services; TI’s ability to grow and maintain its profitability as changes in technology and client expectations outpace service offerings and internal tools and processes; TI maintaining its culture as it grows; effects of economic and geopolitical conditions on its clients’ businesses and demand for its services; a significant portion of TI’s revenue being dependent on a limited number of large clients; continued consolidation in many of the verticals in which TI offers services could result in the loss of a client; attracting and retaining qualified team members to support its operations; adverse impacts of the COVID-19 pandemic on TI’s business and financial results; TI’s business being adversely affected if certain independent contractors were classified as employees, and the costs associated with defending, settling or resolving any future lawsuits (including demands for arbitration) relating to the independent contractor classification; TI’s ability to successfully identify, complete, integrate and realize the benefits of acquisitions and manage associated risks; cyberattacks or unauthorized disclosure resulting in access to sensitive or confidential information and data of its clients or their end customers could have a negative impact on its reputation and client confidence; business development not developing in ways it currently anticipates due to negative public reaction to offshore outsourcing, proposed legislation or otherwise; ability to meet client expectations regarding its content moderation services being adversely impacted due to factors beyond its control and its content moderation team members may suffer adverse emotional or cognitive effects in the course of performing their work; and TI’s lack of history operating as a separate, publicly traded company. TELUS International’s primary reporting currency is the U.S. dollar and the contribution to our consolidated results of positive results in our DLCX segment may be offset by any strengthening of the Canadian dollar (our reporting currency) compared to the U.S. dollar. The price of the subordinate voting shares of TI (TI Subordinate Voting Shares) may be volatile and is likely to fluctuate due to a number of factors beyond its control, including actual or anticipated changes in profitability; general economic, social or political developments; changes in industry conditions; changes in governance regulation; inflation; the general state of the securities markets; and other material events. TI may choose to publicize targets or provide other guidance regarding its business and it may not achieve such targets. Failure to do so could also result in a reduction in the trading price of the TI Subordinate Voting Shares. A reduction in the trading price of the TI Subordinate Voting Shares due to these or other factors could result in a reduction in the fair value of TI multiple voting shares held by TELUS.
- Human resource matters including: recruitment, retention and appropriate training in a highly competitive industry (including retention of team members leading recent acquisitions in emerging areas of our business), the level of our employee engagement and impact on engagement or other aspects of our business of any unresolved collective agreements, our ability to maintain our unique culture as we grow, the risk that certain independent contractors in our business could be classified as employees, unanticipated reaction to our COVID-19 vaccine policy or the reopening of our administrative offices and the health of our team.
- Financing and debt requirements including: our ability to carry out financing activities, refinance our maturing debt, lower our net debt to EBITDA ratio to our objective range given the cash demands of spectrum auctions and/or our ability to maintain investment grade credit ratings in the range of BBB+ or the equivalent. Our business plans and growth could be negatively affected if existing financing is not sufficient to cover our funding requirements.
- Lower than planned free cash flow could constrain our ability to invest in operations, reduce leverage or return capital to shareholders, and could affect our ability to sustain our dividend growth program through 2022. This program may be affected by factors such as the competitive environment, fluctuations in the Canadian economy or the global economy, our earnings and free cash flow, our levels of capital expenditures and spectrum licence purchases, acquisitions, the management of our capital structure, regulatory decisions and developments, and business continuity events. Quarterly dividend decisions are subject to assessment and determination by our Board of Directors based on our financial position and outlook. Common Shares may be purchased under our normal course issuer bid (NCIB) when and if we consider it opportunistic, based on our financial position and outlook, and the market price of our Common Shares. There can be no assurance that our dividend growth program or that our NCIB will be, maintained, unchanged and/or completed.
- Taxation matters including: interpretation of complex domestic and foreign tax laws by the relevant tax authorities that may differ from our interpretations; the timing and character of income and deductions, such as tax depreciation and operating expenses; tax credits or other attributes; changes in tax laws, including tax rates; tax expenses being materially different than anticipated, including the taxability of income and deductibility of tax attributes or retroactive application of new legislation; elimination of income tax deferrals through the use of different tax year-ends for operating partnerships and corporate partners; and changes to the interpretation of tax laws, including those resulting from changes to applicable accounting standards or the adoption of more aggressive auditing practices by tax authorities, tax reassessments or adverse court decisions impacting the tax payable by us.

- Litigation and legal matters including: our ability to successfully respond to investigations and regulatory proceedings; our ability to defend against existing and potential claims and lawsuits (including intellectual property infringement claims and class actions based on consumer claims, data, privacy or security breaches and secondary market liability), or to negotiate and execute upon indemnity rights or other protections in respect of such claims and lawsuits; and the complexity of legal compliance in domestic and foreign jurisdictions, including compliance with competition, anti-bribery and foreign corrupt practices laws.
- 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-related risk (such as extreme weather events and other natural hazards), waste and waste recycling, risks relating to fuel systems on our properties, changing government and public expectations regarding environmental matters and our responses; and challenges associated with epidemics or pandemics, including the COVID-19 pandemic and our response to it, which may add to or accentuate these factors.
- Economic growth and fluctuations including: the state of the economy in Canada, which may be influenced by economic and other developments outside of Canada, including potential outcomes of yet unknown policies and actions of foreign governments and the ongoing COVID-19 pandemic as well as public and private sector responses to the pandemic; expectations of future interest rates; inflation; unemployment levels; effects of fluctuating oil prices; effects of low business spending (such as reducing investments and cost structure); pension investment returns, funding and solvency discount rates; fluctuations in foreign exchange rates of the currencies in the regions in which we operate; sovereign credit ratings and effects on the cost of borrowing; the impact of tariffs on trade between Canada and the U.S.; and global implications of the trade dynamic between major world economies.
- Energy use including: our ability to identify and implement solutions to reduce energy consumption and adopt cleaner sources of energy; our ability to identify and make suitable investments in renewable energy including in the form of power purchase agreements; our ability to continue to realize significant absolute reductions in energy use and the resulting GHG emissions in our operations (including as a result of programs and initiatives focused on our buildings and network); and other risks associated with achieving our goals to achieve carbon neutrality and reduce our GHG emissions by 2030.

These risks are described in additional detail in *Section 9 General trends, outlook and assumptions, and regulatory developments and proceedings* and *Section 10 Risks and risk management* in our 2020 annual MD&A. Those descriptions are incorporated by reference in this cautionary statement but are not intended to be a complete list of the risks that could affect the Company.

Many of these factors are beyond our control or our current expectations or knowledge. Additional risks and uncertainties that are 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 MD&A.

Management’s discussion and analysis (MD&A)

November 5, 2021

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1. Introduction

The forward-looking statements in this section, including, for example, statements relating to the expected impact of the COVID-19 pandemic on our operations and financial condition, are qualified by the *Caution regarding forward-looking statements* at the beginning of this Management’s discussion and analysis (MD&A).

1.1 Preparation of the MD&A

The following sections are a discussion of our consolidated financial position and financial performance for the three-month and nine-month periods ended September 30, 2021, and should be read together with our September 30, 2021 condensed interim consolidated statements of income and other comprehensive income, statements of financial position, statements of changes in owners’ equity, statements of cash flows and the related notes (collectively referred to as the interim consolidated financial statements). The generally accepted accounting principles (GAAP) that we use are International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and Canadian GAAP. In this MD&A, the term IFRS refers to these standards. In our discussion, we also use certain non-GAAP financial measures to evaluate our performance, monitor compliance with debt covenants and manage our capital structure. These measures are defined, qualified and reconciled with their nearest GAAP measures in *Section 11.1*. All currency amounts are in Canadian dollars, unless otherwise specified.

Additional information relating to the Company, including our annual information form and other filings with securities commissions or similar regulatory authorities in Canada, is available on SEDAR ([sedar.com](https://www.sedar.com)). Our filings with the Securities and Exchange Commission in the United States, including Form 40-F, are available on EDGAR ([sec.gov](https://www.sec.gov)). Additional information about our TELUS International (Cda) Inc. (TELUS International or TI) subsidiary, including discussion of its business and results, can be found in its public filings available on SEDAR and EDGAR.

Our disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management on a timely basis, so that appropriate decisions can be made regarding public disclosure. This MD&A and the interim consolidated financial statements were reviewed by our Audit Committee and authorized by our Board of Directors (Board) for issuance on November 5, 2021.

In this MD&A, unless otherwise indicated, results for the third quarter of 2021 (three-month period ended September 30, 2021) and the nine-month period ended September 30, 2021 are compared with results for the third quarter of 2020 (three-month period ended September 30, 2020) and the nine-month period ended September 30, 2020.

Effective January 1, 2021, our segmented reporting structure was retrospectively re-cast. This change arose from continually increasing technological convergence pushing the difference between mobile and fixed access further from the core network and closer to the customer point of access, the increasing significance of digitally-led customer experience services and the evolution of information regularly reported to our chief operating decision maker for purposes of allocating capital resources and assessing performance. See *Section 5.1 General* for additional details.

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 nature of our operations.

COVID-19

As noted in *Section 1.2* of our 2020 annual MD&A, the COVID-19 pandemic, which emerged in the first quarter of 2020, continued to have a pervasive global impact throughout the balance of 2020 and into 2021. Since the beginning of the pandemic, we have focused relentlessly on keeping Canadians connected and on the health, safety and well-being of our team members, customers and communities. Our Executive Team continues to be guided by advice from our Emergency Management Operating Committee (EMOC) and the TELUS Medical Advisory Council (MAC).

We expect the pandemic to continue to affect our operations until at least 2022. Whether this occurs will depend on both domestic and international factors, including vaccination progress and the potential proliferation of COVID-19 variants of concern. During the third quarter of 2021, the Chief Public Health Officer of Canada declared that the fourth wave of the pandemic was underway in Canada. Subsequently on October 8, 2021, the Chief Public Health Officer of Canada indicated that the fourth wave appeared to have levelled off across Canada.

We are committed to prioritizing the health and safety of team members and customers. Therefore, during the quarter, we announced our COVID-19 vaccination policy for all Canadian team members. We currently plan to reopen our Canadian administrative offices in January 2022. Given our flexible Work Styles® program, which launched in 2006 and provides team members with flexible work options to accommodate their work preferences,

team members will have the option to determine whether and how frequently they work from one of our administrative offices.

With respect to TELUS International’s operations, the intent is for team members to return to traditional work environments in offices when it has been deemed safe to do so by local governments and healthcare officials. However, this varies significantly by geography and each region’s vaccination progress.

Economic estimates

Our estimates regarding our environment, including economic growth, unemployment and housing starts, form an important part of the assumptions on which our targets are based. The extent to which these estimates affect us and the timing of their impact will depend upon the actual experience of specific sectors of the Canadian economy.

	Economic growth (Percentage points)		Unemployment (Percentage points)			Housing starts (000s of units)		
	Estimated gross domestic product (GDP) growth rate	Our estimated GDP growth rates ¹	Unemployment rates		Our estimated annual unemployment rates ¹	Seasonally adjusted annual rate of housing starts ²		Our estimated annual rate of housing starts on an unadjusted basis ¹
			For the month of			For the month of		
	2021	2021	September 2021 ³	September 2020 ³	2021	September 2021	September 2020	2021
Canada	5.1 ⁴	5.4 ⁵	6.9	9.0	7.6 ⁵	251	209	270 ⁵
B.C.	6.0 ⁶	5.6 ⁵	5.9	8.4	6.6 ⁵	36	32	47 ⁵
Alberta	6.7 ⁶	6.0 ⁵	8.1	11.7	8.7 ⁵	26	26	32 ⁵
Ontario	5.0 ⁶	5.1 ⁵	7.3	9.5	8.0	101	81	96 ⁵
Quebec	4.2 ⁶	6.1 ⁵	5.7	7.4	6.3 ⁵	63	53	72 ⁵

- 1 Assumptions are as of September 20, 2021 and are based on a composite of estimates from Canadian banks and other sources.
- 2 Source: Statistics Canada. Table 34-10-0158-01 Canada Mortgage and Housing Corporation, housing starts, all areas, Canada and provinces, seasonally adjusted at annual rates, monthly (x 1,000).
- 3 Source: Statistics Canada Labour Force Survey, September 2021 and September 2020, respectively.
- 4 Source: Bank of Canada Monetary Policy Report, October 2021.
- 5 Updated in our third quarter 2021 MD&A.
- 6 Source: British Columbia Ministry of Finance, First Quarterly Report, September 2021; Alberta Ministry of Treasury Board and Finance, 2021 – 22 First Quarter Fiscal Update and Economic Statement, August 2021; Ontario Ministry of Finance, 2021-22 First Quarter Finances, August 12, 2021; and Ministère des Finances du Québec, Budget 2021 – 2022, March 2021, respectively.

1.3 Consolidated highlights

Early redemption of 2022 Notes

On August 17, 2021, we early redeemed all of our \$1 billion 2.35% Notes, Series CT, due March 28, 2022. The long-term debt prepayment premium recorded in the three-month period ended September 30, 2021 was approximately \$10 million before income taxes (\$0.01 per share after income taxes). Subsequent to this early redemption, we no longer have any TELUS Corporation notes maturing in 2022.

3500 MHz spectrum auction developments

Innovation, Science and Economic Development Canada’s (ISED’s) 3500 MHz band spectrum auction occurred during the period from June 15, 2021, through July 23, 2021. We acquired 142 licences equating to 16.4 MHz of spectrum for a total purchase price of approximately \$1.95 billion. Combined with the spectrum we acquired privately ahead of the auction, we now hold 25 MHz of spectrum in the 3500 MHz spectrum band nationally and 40 MHz within key markets, at an average price of \$2.53 per MHz-pop (where pop refers to the population in a licence area). In accordance with the terms of the auction, 20% (\$389 million) was remitted to ISED on its due date, August 13, 2021, while the remaining balance was initially to be paid on its due date, October 4, 2021. On September 22, 2021, ISED sought further consultation on the Standard Radio Systems Plan-520 affecting the deployment of 3500 MHz spectrum and advised that they would issue the 3500 MHz spectrum licences after determining whether amendments were needed to SRSP-520; as the date of licence issuance was delayed, the deadline for the remaining balance was indeterminately extended. We await advisement from ISED as to when the remaining balance will be due and when licence issuance will take place.

Blacksmith Applications acquisition

On September 22, 2021, we acquired 100% ownership of Blacksmith Applications Holdings Inc., a provider of management, optimization and analytics to food, beverage and consumer goods providers. The acquisition is complementary to, and was made with a view to growing, our existing smart data solutions business.

Consolidated highlights

(\$ millions, except footnotes and unless noted otherwise)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Consolidated statements of income						
Operating revenues and other income	4,251	3,981	6.8%	12,386	11,403	8.6%
Operating income	692	617	12.2%	2,022	1,935	4.5%
Income before income taxes	498	430	15.8%	1,418	1,354	4.7%
Net income	358	321	11.5%	1,035	989	4.7%
Net income attributable to Common Shares	345	307	12.4%	1,011	947	6.8%
Adjusted Net income ¹	392	356	10.1%	1,099	1,072	2.5%
Earnings per share (EPS) (\$)						
Basic EPS	0.25	0.24	4.2%	0.76	0.75	1.3%
Adjusted basic EPS ¹	0.29	0.28	3.6%	0.83	0.84	(1.2)%
Diluted EPS	0.25	0.24	4.2%	0.75	0.74	1.4%
Dividends declared per Common Share (\$)	0.3162	0.29125	8.6%	0.9436	0.87375	8.0%
Basic weighted-average Common Shares outstanding (millions)	1,361	1,284	6.0%	1,338	1,270	5.4%
Consolidated statements of cash flows						
Cash provided by operating activities	1,322	902	46.6%	3,511	3,541	(0.8)%
Cash used by investing activities	(1,464)	(1,176)	24.5%	(3,477)	(3,958)	(12.2)%
Acquisitions	(311)	(549)	(43.4)%	(461)	(1,760)	(73.8)%
Capital expenditures ²	(991)	(741)	33.7%	(2,589)	(2,162)	19.8%
Cash provided (used) by financing activities	(177)	(76)	132.9%	982	503	95.2%
Other highlights						
Subscriber connections ³ (thousands)				16,615	15,690	5.9%
Earnings before interest, income taxes, depreciation and amortization ¹ (EBITDA)	1,496	1,390	7.6%	4,408	4,158	6.0%
EBITDA margin ¹ (%)	35.2	34.9	0.3 pts.	35.6	36.5	(0.9) pts.
Restructuring and other costs ¹	63	58	8.6%	142	188	(24.5)%
Adjusted EBITDA ^{1,4}	1,559	1,456	7.1%	4,552	4,292	6.0%
Adjusted EBITDA margin ¹ (%)	36.6	36.5	0.1 pts.	36.7	37.8	(1.1) pts.
Free cash flow ¹	203	161	26.1%	734	1,217	(39.7)%
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)				3.19	3.21	(0.02)

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

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

2 Capital expenditures include assets purchased, excluding right-of-use lease assets, but not yet paid for, and consequently differ from Cash payments for capital assets, excluding spectrum licences, as reported in the interim consolidated financial statements. Refer to *Note 31* of the interim consolidated financial statements for further information.

3 The sum of active mobile phone subscribers, connected device subscribers, internet subscribers, residential voice subscribers, TV subscribers and security subscribers, measured at the end of the respective periods based on information in billing and other source systems. Effective January 1, 2021 with retrospective application to January 1, 2020, in alignment with our segment reporting changes, we made a retroactive adjustment to remove internal network service revenue and approximately 29,000 subscribers from our mobile phone subscriber base and associated operating statistics (average billing per subscriber per month (ABPU) / average revenue per subscriber per month (ARPU) and churn). Effective January 1, 2021 on a prospective basis, following an in-depth review of customer accounts within a legacy subscriber provisioning system to be decommissioned, we adjusted our internet subscriber base to remove 16,000 subscribers.

4 Adjusted EBITDA excludes restructuring and other costs (see *Section 11.1* for restructuring and other costs amounts), other equity losses related to real estate joint ventures, as well as retirement of a provision arising from business acquisition-related written put options within the digitally-led customer experiences – TELUS International (DLCX) segment.

Operating highlights

- **Consolidated Operating revenues and other income** increased by \$270 million in the third quarter of 2021 and \$983 million in the first nine months of 2021.

Service revenues increased by \$296 million in the third quarter of 2021 and \$862 million in the first nine months of 2021, due to growth in internet and third-wave data service revenues, as well as other fixed data services

revenues from subscriber base growth, customer internet speed upgrades and expanded services; increased DLCX segment revenues from business acquisitions, and organic growth from both new clients and expanded services for existing customers; growth in our mobile subscriber base; and growth in health services revenues.

Equipment revenues decreased by \$11 million in the third quarter of 2021 driven by lower mobile handset upgrade volumes largely due to the non-recurrence of heightened demand for handsets in the third quarter of 2020, in addition to global supply chain challenges including industry-wide mobile handset inventory constraints that began to emerge in the third quarter of 2021, as well as lower fixed equipment revenue. Equipment revenues increased by \$235 million in the first nine months of 2021, reflecting higher handset upgrade volumes and a greater sales mix of higher-value smartphones.

Other income decreased by \$15 million in the third quarter of 2021, primarily related to lower net gains on the sale of certain assets. Other income decreased by \$114 million in the first nine months of 2021, largely related to the non-recurrence of the comparative period’s decrease and subsequent retirement of a provision arising from business acquisition-related written put options within DLCX.

For additional details on Operating revenues and other income, see *Section 5.4 TELUS technology solutions segment* and *Section 5.5 Digitally-led customer experiences – TELUS International segment*.

- **Operating income** increased by \$75 million in the third quarter of 2021 and \$87 million in the first nine months of 2021. Excluding the effects of a non-recurring gain on a retirement of a provision arising from business acquisition-related written put options within DLCX of \$71 million in the second quarter of 2020, Operating income increased by \$158 million in the first nine months of 2021. This increase was driven by growth in internet and third-wave data service margins, as well as other fixed data service margins resulting from subscriber base growth and expanded services; growth in network revenue from increases in our mobile phone and connected devices subscriber bases; growth in mobile equipment margins; an increased contribution from DLCX; and lower bad debt expense. This was partly offset by higher employee benefits expense and lower legacy fixed voice and legacy fixed data services. Growth in the first nine months of 2021 also reflects lower non-labour restructuring and other costs related to the pandemic, partly offset by the dilutive lingering impacts of the pandemic, including reduced roaming margins related to travel restrictions. (See *Section 5.3 Consolidated operations* for additional details.)

EBITDA, which includes restructuring and other costs, other equity losses related to real estate joint ventures and a gain on a retirement of a provision arising from business acquisition-related written put options within DLCX, increased by \$106 million in the third quarter of 2021 and \$250 million in the first nine months of 2021.

Adjusted EBITDA, which excludes restructuring and other costs, other equity losses related to real estate joint ventures and a gain on a retirement of a provision arising from business acquisition-related written put options within DLCX, increased by \$103 million or 7.1% in the third quarter of 2021 and \$260 million or 6.0% in the first nine months of 2021, reflecting the drivers mentioned in the Operating income discussion above. (See *Section 5.3 Consolidated operations* for additional details.)

- **Income before income taxes** increased by \$68 million in the third quarter of 2021 and \$64 million in the first nine months of 2021 as a result of higher Operating income, partly offset by increased Financing costs. (See *Financing costs* in *Section 5.3*.)
- **Income tax** expense increased by \$31 million in the third quarter of 2021 and \$18 million in the first nine months of 2021. The effective tax rate increased from 25.4% to 28.1% in the third quarter of 2021, primarily due to greater non-deductible amounts in the current period in addition to tax adjustments recognized in the current period for income taxes of prior periods. The effective tax rate was 27.0% in the first nine months of 2021, which was relatively unchanged compared to the effective tax rate in the first nine months of 2020.
- **Net income attributable to Common Shares** increased by \$38 million in the third quarter of 2021 and \$64 million in the first nine months of 2021, resulting from the after-tax impacts of higher Operating income and higher Financing costs.

Adjusted Net income excludes the effects of restructuring and other costs, income tax-related adjustments, other equity losses related to real estate joint ventures, long-term debt prepayment premium and a gain on a retirement of a provision arising from business acquisition-related written put options within DLCX. Adjusted Net income increased by \$36 million or 10.1% in the third quarter of 2021 and \$27 million or 2.5% in the first nine months of 2021.

Reconciliation of adjusted Net income

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Net income attributable to Common Shares	345	307	38	1,011	947	64
Add (deduct) amounts net of amount attributable to non-controlling interests:						
Restructuring and other costs, after income taxes	44	43	1	97	132	(35)
Income tax-related adjustments	(5)	(2)	(3)	(19)	(3)	(16)
Other equity losses related to real estate joint ventures	—	8	(8)	2	17	(15)
Long-term debt prepayment premium, after income taxes	8	—	8	8	14	(6)
Retirement of a provision arising from business acquisition-related written put options within DLCX, after income taxes	—	—	—	—	(35)	35
Adjusted Net income	392	356	36	1,099	1,072	27

- **Basic EPS** increased by \$0.01 or 4.2% in the third quarter of 2021 and \$0.01 or 1.3% in the first nine months of 2021, as a result of the after-tax impacts of higher Operating income and higher Financing costs, as well as the effect of a higher number of Common Shares outstanding.

Adjusted basic EPS excludes the effects of restructuring and other costs, income tax-related adjustments, other equity losses related to real estate joint ventures, long-term debt prepayment premium and a gain on a retirement of a provision arising from business acquisition-related written put options within DLCX. Adjusted basic EPS increased by \$0.01 or 3.6% in the third quarter of 2021 and decreased by \$0.01 or 1.2% in the first nine months of 2021.

Reconciliation of adjusted basic EPS

(\$)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Basic EPS	0.25	0.24	0.01	0.76	0.75	0.01
Add (deduct) amounts net of amount attributable to non-controlling interests:						
Restructuring and other costs, after income taxes, per share	0.03	0.03	—	0.07	0.10	(0.03)
Income tax-related adjustments, per share	—	—	—	(0.01)	—	(0.01)
Other equity losses related to real estate joint ventures, per share	—	0.01	(0.01)	—	0.01	(0.01)
Long-term debt prepayment premium, after income taxes, per share	0.01	—	0.01	0.01	0.01	—
Retirement of a provision arising from business acquisition-related written put options within DLCX, after income taxes, per share	—	—	—	—	(0.03)	0.03
Adjusted basic EPS	0.29	0.28	0.01	0.83	0.84	(0.01)

- **Dividends declared per Common Share** were \$0.3162 in the third quarter of 2021, reflecting an increase of 8.6% from one year earlier. On November 4, 2021, the Board declared a fourth quarter dividend of \$0.3274 per share on our issued and outstanding Common Shares, payable on January 4, 2022, to shareholders of record at the close of business on December 10, 2021. The fourth quarter dividend increased by \$0.0162 per share or 5.2% from the \$0.3112 per share dividend declared one year earlier, consistent with our multi-year dividend growth program described in *Section 4.3 Liquidity and capital resources*.
- During the 12-month period ending on September 30, 2021, our total **subscriber connections** increased by 925,000. This reflected an increase of 3.9% in mobile phone subscribers, 20.2% in connected device subscribers, 6.5% in internet subscribers, 4.4% in TV subscribers and 13.0% in security subscribers, partly offset by a decline of 3.4% in residential voice subscribers. (See *Section 5.4 TELUS technology solutions segment* for additional details.)

Liquidity and capital resource highlights

- **Cash provided by operating activities** increased by \$420 million in the third quarter of 2021, primarily driven by the timing of income tax and spectrum licence payments as a portion of the income tax instalments from the first six months of 2020 and spectrum licence payments from the first quarter of 2020 were deferred into the third quarter of 2020, in addition to other working capital changes. Cash provided by operating activities decreased by \$30 million in the first nine months of 2021, largely attributable to other working capital changes and higher income taxes paid

related to higher payments in foreign jurisdictions and larger instalments reflecting a higher estimate of taxable income for 2021 compared to 2020. (See *Section 7.2 Cash provided by operating activities.*)

- **Cash used by investing activities** increased by \$288 million in the third quarter of 2021 driven by the cash deposits for the 3500 MHz spectrum licences. Cash used by investing activities decreased by \$481 million in the first nine months of 2021, largely attributable to a lower number and smaller average size of acquisitions. Acquisitions decreased by \$238 million in the third quarter of 2021 and \$1,299 million in the first nine months of 2021, as we made larger cash payments for business acquisitions in the first nine months of 2020, primarily Competence Call Center (CCC) as well as Mobile Klinik and AFS Technologies Inc., both of which were acquired in the third quarter of 2020. Capital expenditures increased by \$250 million in the third quarter of 2021 and \$427 million in the first nine months of 2021, due to accelerated investments in our 5G network, our broadband build, and digitization to increase system capacity and reliability, in addition to the advanced purchase of equipment to mitigate supply chain risks and support subscriber growth. (See *Section 7.3 Cash used by investing activities.*)
- **Cash used by financing activities** increased by \$101 million in the third quarter of 2021, primarily reflecting decreased long-term debt issues, net of redemptions and repayment, as well as higher cash payments for dividends. Cash provided by financing activities increased by \$479 million in the first nine months of 2021 as net cash proceeds from the TELUS International initial public offering (IPO) in the first quarter of 2021 were used to reduce TI credit facility indebtedness. Partially offsetting the effect of the TI IPO proceeds was the effect of equity issuance proceeds from the first quarter of 2021, which were lower than the equity issuance proceeds from the first quarter of 2020 as we issued approximately 6 million fewer Common Shares in the equity issuance in the first quarter of 2021. (See *Section 7.4 Cash provided (used) by financing activities.*)
- **Net debt to EBITDA – excluding restructuring and other costs** ratio was 3.19 times at September 30, 2021, down from 3.21 times at September 30, 2020, as the effect of the increase in EBITDA – excluding restructuring and other costs exceeded the effect of the increase in net debt, notwithstanding the COVID-19 pandemic impacts that have reduced EBITDA. As at September 30, 2021, business acquisitions over the past 12 months increased the ratio by approximately 0.29 and the acquisition of spectrum licences increased the ratio by approximately 0.27. (See *Section 4.3 Liquidity and capital resources* and *Section 7.5 Liquidity and capital resource measures.*)
- **Free cash flow** increased by \$42 million in the third quarter of 2021, resulting primarily from: timing of income tax payments, as a portion of the tax instalments in the first six months of 2020 were deferred into the third quarter of 2020 as permitted by several government jurisdictions as part of their pandemic responses; higher EBITDA and the timing related to device subsidy repayments and associated revenue recognition and our TELUS Easy Payment[®] device financing program. These factors were partly offset by higher capital expenditures in connection with our planned accelerated capital investments. Free cash flow decreased by \$483 million in the first nine months of 2021, driven by: higher capital expenditures as previously noted; higher lease principal payments; and higher income taxes paid as noted in *Cash provided by operating activities*. Our definition of free cash flow, for which there is no industry alignment, is unaffected by accounting changes that do not impact cash, such as IFRS 15 and IFRS 16. (See calculation in *Section 11.1 Non-GAAP and other financial measures.*)

2. Core business and strategy

Our core business and our strategic imperatives were described in our 2020 annual MD&A.

3. Corporate priorities for 2021

Our annual corporate priorities are used to advance our long-term strategic imperatives and address near-term opportunities and challenges. The following table provides a discussion of activities and initiatives that relate to our 2021 corporate priorities.

Elevating our customers, communities and social purpose by honouring our brand promise, *Let’s make the future friendly™*

- Throughout the third quarter of 2021, we continued to leverage our Connecting for Good® programs to support marginalized individuals through the global pandemic and also expanded program eligibility to support those who need it most.
 - We welcomed close to 2,000 new households to our Internet for Good® program this quarter, resulting in more than 97,000 low-income family members, persons with disabilities and youth leaving care benefiting from low-cost internet since the launch of the program in 2016.
 - Our Mobility for Good® program provides subsidized wireless rate plans to all youth aging out of foster care and to over 2.2 million low-income seniors across Canada receiving the guaranteed income supplement. Across both the youth and seniors’ programs, we added more than 900 Canadians this quarter. Since we launched the program in 2017, more than 26,000 marginalized individuals have benefited.
 - In October 2021, we expanded our Health for Good® program to the Niagara Region of Ontario. In collaboration with our partner, REACH Niagara, we are bringing primary care to marginalized and underserved people in the area, including migrant agricultural workers, new immigrants and refugees, while supporting the training of the next generation of healthcare workers.
 - Our mobile health clinics serving in 14 communities across Canada, supported 7,600 patient visits this quarter, resulting in close to 85,000 cumulative primary care visits since the inception of our Health for Good program in 2019.
 - Most mobile clinics are directly supporting the COVID-19 crisis response with our clinics now also administering vaccines. Since the start of the pandemic, our mobile health clinics have provided 26,000 COVID-19 assessments and administered more than 7,500 vaccinations.
 - In partnership with March of Dimes Canada, we continued to provide people with disabilities access to personalized one-on-one assessments, customized recommendations, training and support on mobile devices through our Tech for Good™ program. To date, we have supported close to 4,000 Canadians with disabilities who require professional assistance to independently use or control their mobile device through access to the program and the TELUS Accessibility Discount.
- The TELUS Friendly Future Foundation™ and TELUS Community Boards are directing 2021 support to charitable initiatives helping at-risk youth and other marginalized populations. Throughout the first nine months of 2021, the Foundation distributed \$4.2 million in Community Board grants to 307 local charitable projects and \$2.2 million to 26 national, territorial or provincial charitable initiatives.
- This fall, we donated 14,000 backpacks that were filled with essential school supplies to local schools across Canada to support students in need. Since 2006, our annual Kits for Kids program has donated 180,000 backpacks, creating a friendlier future as kids head back to school.
- The TELUS Pollinator Fund for Good™ was recognized as a Clean50 Top Project for our contributions to clean capitalism in Canada. Canada’s Clean50 offers recognition to Canada’s leaders in sustainability for their contributions over the prior two years. The Fund has also been confirmed as a global finalist of the social impact award in Reuters Events Responsible Business Awards. Throughout the first nine months of 2021, the TELUS Pollinator Fund for Good completed 10 investments, including Fresh City, a Toronto-based omni-channel organic grocer, and EliteGamingLIVE, a Baltimore-based educational technology platform.
- In September, we launched our Reconciliation Commitment, which was developed in partnership with and in support of Indigenous Peoples across the country. Our Reconciliation Commitment reflects an evolution of our long-standing passion for creating stronger, healthier communities while understanding our shared history, deepening meaningful relationships with Indigenous Peoples, and taking meaningful action in alignment with Indigenous-led frameworks of Reconciliation.
- Our renewable energy power purchase agreement (PPA) with the Brooks Solar facility in Alberta has seen production of over 18,000 MWh in the first nine months of 2021, while three additional PPAs are pending commercial operations in 2022.

Leveraging TELUS’ world-leading technology to drive superior growth across mobile, home and business services

- We were recognized with accolades from U.K.-based Opensignal throughout the third quarter of 2021.
 - In the *Mobile Network Experience: Canada Report* (August 2021), we earned the top spot in six of seven categories, won top spot in four awards (Video Experience, Voice App Experience, Download Speed Experience and Upload Speed Experience), and tied for first in two awards (Games Experience and 4G Coverage Experience). Our speed in the Download Speed Experience category was 73.9 Mbps, which was 5.8% faster than the second place finisher and 28.6% faster than the third place finisher.
 - In the *Canada 5G Experience Report* released in August 2021, we tied for first in 5G Video Experience, 5G Download Speed and 5G Upload Speed.

- Based on data from Q1-Q2 2021, we won the Speedtest Award from U.S.-based Ookla for Canada’s Fastest Mobile Network for the fifth year in a row.
- In July, we announced the launch of the TELUS Managed Cloud Security service which supports an integrated cybersecurity strategy with unified controls and complete visibility across the customers’ infrastructure. Built in collaboration with cybersecurity leader Palo Alto Networks, TELUS Managed Cloud Security offers a comprehensive way to secure data wherever customers do business.
- In July, we invested in Radicle, a Calgary-based company which has developed a carbon credit platform for buyers and sellers of carbon credits. We are exploring potential partnership angles to assist Radicle to expand into new business lines, new geographies and support our goal of net zero emissions by 2030.
- In August, we announced that customers can now control and monitor their TELUS SmartHome Security and entertainment system hands-free by using voice commands with the new TELUS Home Assistant skill for Amazon Alexa. Customers can now use hands-free voice commands to set SmartHome Security functions such as arming their panel, locking and unlocking doors, setting the thermostat and turning lights on and off.
- In August, we made an investment in Australia-based Quintessence Labs, which has brought commercially-ready, quantum-ready cryptography and true random number generation solutions to the cybersecurity market. We are making strategic investments in companies which will protect us and our customers against cybersecurity adversaries who are expected to be able to break current encryption technology within the next 5 to 10 years.
- In September, we announced a multi-year agreement with General Motors Canada (GM) that would connect GM’s next-generation vehicles to our 5G network. We are collaborating with GM to enable high-performance wireless network capabilities that will meet the unique needs of an all-electric and autonomous vehicle future. The first GM vehicles with built-in connectivity to our 4G-LTE and 5G network are expected to be introduced with the 2025 model year.
- In September, we announced the expansion of our Smart Building footprint by using our technology to simplify day-to-day operations, reduce costs and elevate the resident experience. Partnering with Arlington Street Investments, we are transforming a new boutique retail and residential rental development located on 17th Avenue in Calgary into a TELUS Smart Building, allowing residents and building operators the comfort of knowing that the property is safe, sustainable and connected.
- Together with Hilo, the Hydro Quebec subsidiary that offers complete smart energy services for homes and businesses, we launched a pilot project in Quebec City to bundle our home automation and security technologies with Hilo’s smart home solutions to help make Quebec homes smarter and more eco-friendly while saving residents money.

Scaling our innovative digital capabilities in TELUS Health and TELUS Agriculture to build assets of consequence

- During the ongoing COVID-19 pandemic, TELUS Health Virtual Care and TELUS Health MyCare have benefited from significant adoption. These solutions have helped Canadians stay safe at home and avoid higher-risk environments such as clinics and emergency rooms wherever possible and, in turn, freed up healthcare system capacity to respond to the pandemic. Our two virtual care offerings provide millions of Canadians with the opportunity to seek primary care and mental healthcare, virtually, across the country and also reach Canadians who do not have access to a family doctor or those who seek medical care after-hours.
- Our LivingWell Companion™ personal emergency response service (PERS) continues to support the health and well-being of seniors across Canada. With COVID-19 disproportionately impacting the elderly, LivingWell Companion helps seniors stay connected to emergency support and offers a remote caregiving solution to those who may be unable to physically support their elderly loved ones. In the second quarter of 2021, we launched TELUS Health Companion on Apple Watch, now available to English and French speakers across Canada, which is a 24/7 emergency monitoring service provided through TELUS Health’s LivingWell Companion national response service combined with the Apple Watch Fall Detection application programming interface (API) and proactive monitoring functionalities.
- Throughout the pandemic, the TELUS Healthy Living Network® has been providing Optik TV® customers with informative and compelling content related to COVID-19 prevention and well-being, and helping them to stay active and healthy at home with over 1,250 leading fitness, yoga, nutrition and mental health titles available for free, for rent or to own. In the fourth quarter of 2020, we announced a global-first partnership with Calm to offer leading mental health content on the TELUS Healthy Living Network, providing support to Canadians as they deal with the stresses brought on by the pandemic. We offer free content for all Optik TV and Pik TV® subscribers, as well as additional premium content via our Calm Optik TV theme pack, which includes guided meditations, breathing exercises and Calm’s Sleep Stories (bedtime stories for adults). We are Calm’s only Canadian telecom partner, and the first to bring Calm’s content to a TV service and offer subscriptions through redemptions of TELUS Rewards® loyalty points.
- In the early part of the third quarter of 2020, TELUS Health began enabling Canadian clinicians to conduct virtual visits with their patients by integrating patient videoconferencing into its electronic medical records (EMR) across Canada. This feature allows clinicians to virtually support their own roster of patients, while maintaining continuity of care and fully up-to-date health records. As of September 30, 2021, over 484,000 consultations had been conducted through the TELUS EMR Virtual Visit solution since launch.
- In September, we invested in RecoveryOne, which directly supports our virtual healthcare quality efforts as they provide a comprehensive software solution to optimize a patient’s unique recovery journey following a musculoskeletal surgery. The California-based company will work with us as their preferred Canadian partner.
- In July, TELUS Agriculture, together with Rabobank, a global food and agriculture bank, acquired Conservis, a company that

integrates disparate farm technologies into one streamlined interface to manage the business of farming. Improving on-farm profitability and enabling the efficient sharing of farm data with trusted partners are foundational ingredients to ensure the sustainability and security of our food system. Together alongside Rabobank and with the technology available in the Conservis platform, we will be able to make the financial management of farms a more efficient process and unlock new opportunities for our customers across the food value chain.

- In September, we acquired the assets of Herdtrax Inc., a leading integrated online cattle record management software that allows users to capture data at birth and through every subsequent event through the animal's life. Herdtrax will continue to work to bridge information gaps through an animal's life, providing the ability to track and share attributes to help with management decisions made across the beef industry. Herdtrax is already integrated with Feedlot Health Management Services by TELUS Agriculture, allowing farmers to share information with buyers, helping optimize production efficiency and overall animal health by supporting data-based decision making for feedlot and calf grower clients.
- As noted in *Section 1.3*, we acquired Blacksmith Applications Holdings Inc., a Software as a Service (SaaS)-based trade promotion management, optimization and analytics (TPx) solutions provider, serving consumer goods manufacturers and retail customers. With Blacksmith Applications, TELUS Agriculture now has a complete set of TPx and analytics capabilities which strengthens TELUS Agriculture's position as a marketing leader in the space. Our complementary solutions have high cross-sell potential with Exceedra, Ignition, and Muddy Boots customers. Combined, we aspire to offer a market leading solution for retail and the food, beverage, and consumer goods industries.

Scaling our innovative digital capabilities in TELUS International to build an asset of consequence

- In July, TELUS International acquired Bangalore-based Playment, a leader in data annotation and computer vision tools and services specializing in 2D and 3D image, video and light detection and ranging (LiDAR). The acquisition followed TELUS International's purchase of Lionbridge AI in December 2020 and further expanded the company's global leadership in scaled data annotation capabilities, enabling greater opportunities to enhance AI systems and provide more complex solutions to technology, large enterprise and existing hyperscaler clients. Today, the company operates this division as TELUS International AI Data Solutions, with a global AI Community of over one million annotators and linguists and one of the largest data annotation platforms of its kind globally.
- TELUS International was named a Leader by global research firm Everest Group in its 2021 Customer Experience Management (CXM) – Service Provider Landscape with Services PEAK Matrix Assessment. This is the third consecutive year TELUS International has achieved Leader status. TELUS International was also recognized by Fast Company as one of the Best Workplaces for Innovators and was named on the Achievers 50 Most Engaged Workplaces.
- In July, TELUS International announced the launch of Intelligent Insights, a vendor-agnostic platform to monitor and manage robotic process automation (RPA) solutions and bots. With Intelligent Insights, companies can track their digital operations on a single platform to monitor effectiveness, cost savings and opportunities for innovation, empowering clients to analyze how much automation and human interaction is best for their business.
- In August, TELUS International opened its third site in the U.S. with a new digital CX delivery centre in North Charleston, South Carolina. The company plans to create approximately 1,200 jobs by 2022 in North Charleston, adding to its more than 2,400 team members in the U.S. currently supporting digital CX and digital transformation programs from Las Vegas, Nevada and Folsom, California. The new site will provide high-tech and high-touch customer experiences to leading global brands.
- In September, TELUS International successfully completed an upsized underwritten public secondary offering of 14,400,000 subordinate voting shares, at a price of US\$34.00 per share, by certain shareholders, including Baring Private Equity Asia. TELUS Corporation did not participate in the offering. Additionally, driven by strong investor demand, the underwriters fully exercised the option to purchase up to an additional 2,160,000 subordinate voting shares from the selling shareholders. Following the offering, TELUS Corporation and Baring Private Equity Asia hold approximately 70.9% and 25.9%, respectively, of the combined voting power of TELUS International and approximately 55.1% and 20.1%, respectively, of the economic interest.

4. Capabilities

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

4.1 Principal markets addressed and competition

For a discussion of our principal markets and an overview of competition, refer to *Section 4.1* of our 2020 annual MD&A.

4.2 Operational resources

TELUS technology solutions (TTech)

Innovation, Science and Economic Development Canada (ISED) held its 3500 MHz auction from June 15, 2021 through July 23, 2021. We successfully acquired 142 wireless licences in B.C., Alberta, Manitoba, Ontario and Quebec. Combined with the spectrum acquired privately in the first quarter of 2021, we now hold 25 MHz in the 3500 MHz spectrum band nationally and 40 MHz in our key markets. By securing the critical, mid-band spectrum necessary to bring transformational, next-generation 5G connectivity to Canadians, we are able to continue to offer the leading network reliability, speed, coverage and low latency that citizens need to realize improved outcomes in a digital world.

Since mid-2013 through September 30, 2021, we have invested more than \$5.6 billion to acquire wireless spectrum licences in spectrum auctions and other private transactions, including transactions in the first quarter of 2021 where we obtained the use of AWS-4 spectrum licences from the original licensees, as well as in the second quarter of 2021 where we acquired 2500 MHz spectrum, in addition to the above mentioned 3500 MHz acquisitions. These investments have more than doubled our national spectrum holdings in support of our top priority to put customers first.

Mobile data consumption has been increasing rapidly and is expected to continue growing at a fast rate as the industry transitions to 5G, and we have responded by investing to extend our coverage and expand the capacity of our leading network quality to support the additional data consumption and growth in our mobile subscriber base in a geographically diverse country. This includes investments in wireless small cells connected directly to our fibre technology to improve coverage and capacity utilized in our 5G network launch.

As at September 30, 2021, our 4G LTE technology covered 99% of Canada’s population, consistent with September 30, 2020. We have continued to invest in the roll-out of our LTE advanced technology, which covered over 96% of Canada’s population at September 30, 2021, relatively consistent from one year earlier. Furthermore, our 5G network, launched in June 2020, covered 64% of Canada’s population at September 30, 2021.

We are continuing to invest in our urban and rural communities across B.C., Alberta and Eastern Quebec with commitments to deliver broadband technology capabilities to as many Canadians in these communities as possible, including expanding our fibre footprint by connecting more homes and businesses directly to fibre in these communities. In addition, we have increased broadband internet speeds, expanded our IP TV video-on-demand library and high-definition content, including 4K TV and 4K HDR capabilities, and enhanced the marketing of data products and bundles resulting in improved churn rates. Our fibre technology is also an essential component of our wireless access technology and has enabled our 5G deployment as referenced above. Our home and business security integrates safety and security monitoring with smart devices.

As at September 30, 2021, more than 2.6 million households and businesses in B.C., Alberta and Eastern Quebec were covered with fibre-optic cable, which provides these premises with immediate access to our fibre-optic technology. This is up from more than 2.4 million households and businesses in the third quarter of 2020.

As at September 30, 2021, approximately 12% of our TV and internet customers within our PureFibre footprint are serviced by copper, down from 15% at June 30, 2021. The majority of the remaining customers are expected to be substantially migrated to TELUS PureFibre® by the end of 2022.

We offer a variety of healthcare solutions and services including virtual care, virtual pharmacy, electronic medical records (EMR), pharmacy management systems, claims management solutions, personal health records, remote patient monitoring, personal emergency response services, mental health support, comprehensive primary care and employee wellness, and curation of health content for Canadians.

Our smart food-chain technology solutions include farm management, precision agronomy, feedlot health management, application programming interface (API) and application integration services, compliance management, food traceability and quality assurance, supply chain management, data management solutions and software solutions for trade promotion management and retail execution.

Digitally-led customer experiences – TELUS International (DLCX)

Our DLCX segment offers services that support the full lifecycle of our clients’ digital transformation journeys. We enable our clients to more quickly embrace next-generation digital technologies to deliver better business outcomes. The solutions and services offered are relevant across multiple markets, including information technology (IT) services for digital transformation of customer experience systems and digital customer experience management.

Our DLCX segment has built an agile delivery model with global scale to support next-generation, digitally-led customer experiences. Substantially all of the delivery locations are connected through a carrier-grade infrastructure backed by cloud technologies, enabling globally distributed and virtualized teams. The interconnectedness of our DLCX teams and ability to seamlessly shift interactions between physical and digital channels enables our DLCX teams to tailor our delivery strategy to clients’ evolving needs.

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 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 business. 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 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 utilizing a number of measures, including our net debt to EBITDA – excluding restructuring and other costs ratio, coverage ratios and dividend payout ratios. (See definitions in *Section 11.1 Non-GAAP and other financial measures.*)

Financing and capital structure management plans

Report on financing and capital structure management plans

Pay dividends to the holders of the common shares of TELUS Corporation (Common Shares) under our multi-year dividend growth program

- In May 2019, we announced our intention to target ongoing semi-annual dividend increases, with the annual increase in the range of 7% to 10% from 2020 through to the end of 2022, thereby extending the policy first announced in May 2011. Notwithstanding this target, dividend decisions will continue to be subject to our Board’s assessment and the determination of our financial position and outlook on a quarterly basis. Our long-term Common Share dividend payout ratio guideline is 60% to 75% of free cash flow on a prospective basis. (See *Section 7.5 Liquidity and capital resource measures.*) There can be no assurance that we will maintain a dividend growth program or that it will be unchanged through 2022. (See *Caution regarding forward-looking statements – Lower than planned free cash flow could constrain our ability to invest in operations, reduce leverage or return capital to shareholders, and could affect our ability to sustain our dividend growth program through 2022 and Section 10.13 Financing, debt and dividends* in our 2020 annual MD&A.)
- On November 4, 2021, the Board elected to declare a fourth quarter dividend of \$0.3274 per share, payable on January 4, 2022, to shareholders of record at the close of business on December 10, 2021. The fourth quarter dividend for 2021 reflects a cumulative increase of \$0.0162 per share or 5.2% from the \$0.3112 per share dividend declared one year earlier.
- Our dividend reinvestment and share purchase (DRISP) plan trustee acquired shares from Treasury for the DRISP plan, rather than acquiring 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 DRISP. Effective with the dividends paid beginning on October 1, 2019, we offered Common Shares from Treasury at a discount of 2%. During the third quarter of 2021, for the dividends paid on July 2, 2021, our DRISP plan trustee acquired from Treasury approximately 6 million dividend reinvestment Common Shares for \$157 million. For the dividends paid on October 1, 2021, the DRISP participation rate, calculated as the DRISP investment of \$158 million (including the employee share purchase plan) as a percentage of gross dividends, was approximately 37%.
- TELUS International intends to retain all available funds and any future earnings to support operations and to finance the growth and development of its business. As such, TELUS International does not intend to declare or pay cash dividends on its equity shares in the foreseeable future.

Report on financing and capital structure management plans

<p>Purchase Common Shares</p> <ul style="list-style-type: none"> During the three-month period ended September 30, 2021, and up to the date of this MD&A, we did not purchase or cancel any shares pursuant to our NCIB.
<p>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</p> <ul style="list-style-type: none"> Our issued and outstanding commercial paper was \$1,528 million at September 30, 2021, all of which was denominated in U.S. dollars (US\$1,199 million), compared to \$731 million (US\$574 million) at December 31, 2020, and \$427 million (US\$320 million) at September 30, 2020. Net draws due to a syndicate of financial institutions (excluding TELUS Corporation) on the TI credit facility were US\$877 million at September 30, 2021, compared to US\$1,428 million at December 31, 2020, and US\$820 million at September 30, 2020. The TI credit facility is non-recourse to TELUS Corporation. Proceeds from securitized trade receivables were \$100 million at September 30, 2021, unchanged from December 31, 2020 and September 30, 2020.
<p>Maintain compliance with financial objectives</p> <ul style="list-style-type: none"> <u>Maintain investment grade credit ratings in the range of BBB+ or the equivalent</u> – On November 5, 2021, investment grade credit ratings from the four rating agencies that cover TELUS were in the desired range. (See <i>Section 7.8 Credit ratings</i>.) <u>Net debt to EBITDA – excluding restructuring and other costs ratio of 2.20 to 2.70 times</u> – As measured at September 30, 2021, this ratio was 3.19 times, outside of the objective range, primarily due to the reduction of EBITDA caused by the COVID-19 pandemic, as well as business acquisitions and the acquisition of spectrum licences. Given the cash demands of the 2019 600 MHz, the recent 2021 3500 MHz and upcoming spectrum auctions, as well as the inability to predict impacts of the COVID-19 pandemic, the assessment of the guideline and return to the objective range remains to be determined; however, it is our intent to return to a ratio below 2.70 times in the medium term (following the recent 2021, and upcoming, 2023 and 2024 spectrum auctions), consistent with our long-term strategy. (See <i>Section 7.5 Liquidity and capital resource measures</i>.) <u>Common Share dividend payout ratio of 60% to 75% of free cash flow on a prospective basis</u> – Our objective range is on a prospective basis. The Common Share dividend payout ratio we present in this MD&A is a historical measure utilizing the most recent four quarters of dividends declared, net of dividend reinvestment plan effects, and free cash flow, and is disclosed for illustrative purposes in evaluating our target guideline. As at September 30, 2021, the ratio was 110%, outside of the objective range, primarily due to: (i) the reduction of EBITDA caused by the pandemic; and (ii) our planned accelerated capital expenditures program to support our broadband capital investments, the build-out of our TELUS PureFibre infrastructure and the acceleration of our 5G network roll-out. Excluding the effects of our accelerated capital expenditures program, as at September 30, 2021, the ratio was 75%. (See <i>Section 7.5 Liquidity and capital resource measures</i>.) <u>Generally maintain a minimum of \$1 billion in available liquidity</u> – As at September 30, 2021, our available liquidity on a consolidated basis was approximately \$3.6 billion. (See <i>Section 7.6 Credit facilities and Liquidity risk in Section 7.9</i>.)

4.4 Changes in internal control over financial reporting

For the three-month and nine-month periods ended September 30, 2021, there were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

5. Discussion of operations

This section contains forward-looking statements, including those with respect to mobile phone average billing per subscriber per month (ABPU) and mobile phone average revenue per subscriber per month (ARPU) growth, products and services trends regarding loading and retention spending, equipment margins, subscriber growth and various future trends. There can be no assurance that we have accurately identified these trends based on past results or that these trends will continue, in particular given uncertainty with regard to the COVID-19 pandemic and associated economic impacts. See *Caution regarding forward-looking statements* at the beginning of this MD&A.

5.1 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 operations of

which can be clearly distinguished and for which the operating results, and in particular, Adjusted EBITDA, are regularly reviewed by a chief operating decision-maker to make resource allocation decisions and to assess performance.

Effective January 1, 2020, we embarked upon modifying our internal and external reporting processes, systems and internal controls to accommodate the technology convergence-driven cessation of the historical distinction between our wireless and wireline operations at the level of regularly reported discrete performance measures that are provided to our Chief Executive Officer (CEO) (our chief operating decision-maker). Prior to the World Health Organization characterizing COVID-19 as a pandemic, we had anticipated transitioning to a new segment reporting structure during 2020; commencing with the three-month period ended March 31, 2021, we have now transitioned to our new segment reporting structure and have recast comparative amounts on a comparable basis. Segmented information in *Note 5* of the interim consolidated financial statements is regularly reported to our CEO.

The TELUS technology solutions (TTech) segment includes: network revenues and equipment sales arising from mobile technologies; data revenues (which include internet protocol; television; hosting, managed information technology and cloud-based services; software, data management and data analytics-driven smart food-chain technologies; and home and business security); certain healthcare software and technology solutions; voice and other telecommunications services revenues; and equipment sales.

The digitally-led customer experiences – TELUS International (DLCX) segment, whose primary functional currency is the U.S. dollar, is comprised of digital customer experience and digital-enablement transformation, including artificial intelligence (AI) and content management solutions, provided by TELUS International.

5.2 Summary of consolidated quarterly results and trends

Summary of quarterly results

(\$ millions, except per share amounts)	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3	2020 Q2	2020 Q1	2019 Q4
Operating revenues and other income	4,251	4,111	4,024	4,060	3,981	3,728	3,694	3,858
Operating expenses								
Goods and services purchased ¹	1,660	1,609	1,548	1,766	1,632	1,458	1,412	1,681
Employee benefits expense ¹	1,095	1,051	1,015	958	959	911	873	809
Depreciation and amortization	804	793	789	789	773	725	725	678
Total operating expenses	3,559	3,453	3,352	3,513	3,364	3,094	3,010	3,168
Operating income	692	658	672	547	617	634	684	690
Financing costs before long-term debt prepayment premium	184	203	207	190	187	184	192	175
Long-term debt prepayment premium	10	—	—	—	—	18	—	—
Income before income taxes	498	455	465	357	430	432	492	515
Income taxes	140	111	132	86	109	117	139	136
Net income	358	344	333	271	321	315	353	379
Net income attributable to Common Shares	345	335	331	260	307	290	350	368
Net income per Common Share:								
Basic earnings per share (EPS)	0.25	0.25	0.25	0.20	0.24	0.23	0.28	0.30
Adjusted basic EPS ²	0.29	0.26	0.27	0.22	0.28	0.25	0.32	0.32
Diluted EPS	0.25	0.25	0.25	0.20	0.24	0.23	0.23	0.30
Dividends declared per Common Share	0.3162	0.3162	0.3112	0.3112	0.29125	0.29125	0.29125	0.29125
Additional information:								
EBITDA ²	1,496	1,451	1,461	1,336	1,390	1,359	1,409	1,368
Restructuring and other costs ²	63	38	41	71	58	70	60	40
Other equity losses related to real estate joint ventures	—	1	1	2	8	3	6	5
Retirement of a provision arising from business acquisition-related written put options within DLCX	—	—	—	—	—	71	—	—
Adjusted EBITDA ²	1,559	1,490	1,503	1,409	1,456	1,361	1,475	1,413
Cash provided by operating activities	1,322	1,250	939	1,033	902	1,462	1,177	829
Free cash flow ²	203	210	321	218	161	511	545	135

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

COVID-19 was characterized as a pandemic in March 2020 and has had significant impacts on our business. The pandemic prevents us and our customers from operating in traditional manners of business in certain areas. While we expect the pandemic to continue to affect our operations until at least 2022, we have adapted, and are continuously adapting, to future modes of operating.

The trend of year-over-year increases in consolidated revenue reflects TTech growth, including: (i) fixed data services growth in internet and third-wave products revenues, TV revenues, home and business security revenues, smart food-chain technology revenues, and other advanced application offerings; (ii) mobile network revenue generated from growth in our subscriber base as well as the acceleration of Internet of Things (IoT) connections, largely reduced by COVID-19 pandemic impacts such as lower roaming revenue related to travel restrictions and customers reducing their general shopping habits in retail outlets commencing from the temporary closure of approximately 90% of our retail outlets beginning in March 2020 through a majority of the second quarter of 2020, hindering in-person customer opportunities for the upgrade or selection of higher-tier mobile phone plans; and (iii) certain health revenues, including health benefits management, collaborative health records, pharmacy management and virtual pharmacy solutions as well as TELUS Health Virtual Care. All of these areas have been partly offset by moderating equipment revenue growth that can be attributed to the abovementioned change in customers’ general shopping habits in retail outlets, which more recently has seen suppressed handset upgrade volumes throughout 2020 manifest in increased demand in the first half of 2021, as well as other pandemic impacts such as the temporary closure of our TELUS Health Care Centres in 2020 and the centres operating at reduced volume in 2021, and business customers faced with reduced and/or closed operations. Increased internet and third-wave data services and TV service revenues are being generated by subscriber growth and higher internet revenue per customer. There has also been increased customer adoption of our home and business security services and smart food-chain technology. For additional information on mobile and fixed revenue and subscriber trends, see *Section 5.4 TELUS technology solutions segment*.

Year-over-year increases in consolidated revenue also reflects growth in DLCX revenue from a combination of business acquisitions, including Competence Call Center (CCC) on January 31, 2020, and Lionbridge AI on December 31, 2020, with the business subsequently rebranded to TELUS International AI Data Solutions (TIAI), and organic external customer growth.

The trend of year-over-year increases in Goods and services purchased reflects increased expenses to support growth in our DLCX business, our subscriber base and business acquisitions; increased fixed data product costs of sales associated with a growing subscriber base; higher mobile equipment expenses associated with higher-value smartphones in the sales mix; and higher operating costs associated with growth related to scaling our health offerings and scaling our digital capabilities. TIAI utilizes contracted labour in servicing its customers as compared to solely utilizing employees and, therefore, these contracted services are expected to contribute to year-over-year increases in Goods and services purchased throughout 2021.

The trend of year-over-year increases in net Employee benefits expense reflects increases in the number of employees related to business acquisitions, including those supporting the growth of DLCX revenue, health offerings, smart food-chain technology business and our other complementary businesses. This was partly offset by moderating salaries expense resulting from reductions in the number of full-time equivalent (FTE) domestic employees, excluding business acquisitions, related in part to absorbed vacancies. We experienced year-over-year increases in net Employee benefits expense in the first nine months of 2021 and in 2020 related to merit-based compensation increases including April 2021 and July 2020 compensation program increases.

The trend of year-over-year increases in Depreciation and amortization reflects increases due to capital assets acquired in business acquisitions; growth in capital assets, in support of the expansion of our broadband footprint, including our generational investment to connect homes and businesses to TELUS PureFibre and 5G technology coverage; and growth in internet, TV and security subscriber loading. The investments in our fibre-optic technology also support our technology strategy to improve coverage and capacity, including an efficient and timely evolution to 5G as we launched the first wave of our 5G network in June 2020.

The trend of year-over-year increases in Financing costs reflects an increase in long-term debt outstanding, mainly associated with our investments in spectrum, fibre and mobile technology, as well as our business acquisitions. Financing costs include a long-term debt prepayment premium of \$10 million in the third quarter of 2021 and \$18 million in the second quarter of 2020. Moreover, Financing costs are net of capitalized interest related to spectrum licences acquired during the 600 MHz spectrum auction, which we commenced deploying into our existing network in 2021. Financing costs also include Interest accretion on provisions (asset retirement obligations and written put options) and Employee defined benefit plans net interest. Additionally, for the eight periods shown, Financing costs include varying amounts of foreign exchange gains or losses and varying amounts of interest income.

The trend in Net income reflects the items noted above, as well as non-cash adjustments arising from substantively enacted changes in income tax and adjustments recognized in the current periods for income taxes of prior periods. Historically, the trend in basic EPS has reflected trends in Net income.

The general trend of year-over-year decreases in Cash provided by operating activities reflects higher year-over-year income taxes paid, largely driven by the pandemic-related deferral of payments allowed in 2020, other operating working capital changes and higher interest payments arising from increases in debt outstanding and year-over-year variations in fixed-term interest rates. The general trend of year-over-year decreases in free cash flow reflects the factors affecting Cash provided by operating activities in addition to increased capital expenditure activity, except that accounting policies that do not impact cash (IFRS 15 and IFRS 16) do not affect the determination of free cash flow. For further discussion of trends, see *Section 5.4 TELUS technology solutions segment* and *Section 5.5 Digitally-led customer experiences – TELUS International segment*.

5.3 Consolidated operations

The following is a discussion of our consolidated financial performance. Segment information in *Note 5* of the interim consolidated financial statements is regularly reported to our CEO. We discuss the performance of our segments in *Section 5.4 TELUS technology solutions segment* and *Section 5.5 Digitally-led customer experiences – TELUS International segment*.

Operating revenues

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Operating revenues						
Service	3,669	3,373	8.8%	10,730	9,868	8.7%
Equipment	577	588	(1.9)%	1,647	1,412	16.6%
Operating revenues (arising from contracts with customers)	4,246	3,961	7.2%	12,377	11,280	9.7%
Other income	5	20	(75.0)%	9	123	(92.7)%
Operating revenues and other income	4,251	3,981	6.8%	12,386	11,403	8.6%

Consolidated Operating revenues and other income increased by \$270 million in the third quarter of 2021 and \$983 million in the first nine months of 2021.

- **Service revenues** increased by \$296 million in the third quarter of 2021 and \$862 million in the first nine months of 2021, reflecting (i) increased internet and third-wave data service revenues, as well as smart food-chain technology and other fixed data services revenues, driven by subscriber base growth, higher revenue per customer resulting from internet speed upgrades, business acquisitions and expanded services; (ii) growth in DLCX operating revenues resulting from business acquisitions, as well as organic growth from both new clients and expanded services for existing customers; (iii) growth in our mobile phone and connected devices subscriber bases; and (iv) growth in health services revenues. This was partly offset by continued declines in legacy fixed voice and legacy fixed data service revenues.

Compared to the prior year, growth in the first nine months of 2021 also reflects the dilutive lingering impacts of the pandemic, most notably in the first quarter of 2021, including reduced roaming revenues related to travel restrictions.

- **Equipment revenues** decreased by \$11 million in the third quarter of 2021, driven by lower mobile handset upgrade volumes largely due to the non-recurrence of heightened demand for handsets in the third quarter of 2020 attributable to the temporary closure of approximately 90% of our retail outlets through most of the second quarter of 2020, in addition to global supply chain challenges, including industry-wide mobile handset inventory constraints that began to emerge in the third quarter of 2021, as well as lower fixed equipment revenue. These factors were partly offset by higher-value smartphones in the sales mix.

Equipment revenues increased by \$235 million in the first nine months of 2021, reflecting higher handset upgrade volumes, as handset upgrades were significantly impacted by the pandemic in 2020, and a greater sales mix of higher-value smartphones, largely due to increased market promotion activity. Handset upgrade volumes increased as a result of the successful execution of our customers first initiatives, including the enhanced capabilities of our digital footprint, and suppressed handset upgrade volumes throughout 2020 manifesting in increased demand in 2021. A higher volume of home and business security equipment sales and data equipment sales also contributed to this increase.

- **Other income** decreased by \$15 million in the third quarter of 2021 mainly related to lower net gains on the sale of certain assets, partly offset by lower other equity losses related to real estate joint ventures. Other income decreased by \$114 million in the first nine months of 2021, largely related to the non-recurrence of a decrease and subsequent retirement of the comparative period’s gain of a provision arising from business acquisition-related written put options to acquire the remaining non-controlling interest of an acquired subsidiary, Xavient Information Systems (Xavient), which was settled in the second quarter of 2020, in addition to the other items previously noted that impacted the third quarter of 2021.

Operating expenses

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Goods and services purchased	1,660	1,632	1.7%	4,817	4,502	7.0%
Employee benefits expense	1,095	959	14.2%	3,161	2,743	15.2%
Depreciation	530	540	(1.9)%	1,581	1,568	0.8%
Amortization of intangible assets	274	233	17.6%	805	655	22.9%
Operating expenses	3,559	3,364	5.8%	10,364	9,468	9.5%

Consolidated operating expenses increased by \$195 million in the third quarter of 2021 and \$896 million in the first nine months of 2021.

- **Goods and services purchased** increased by \$28 million in the third quarter of 2021 due to: (i) higher operating, contracted labour and administrative costs associated with business acquisitions, organic DLCX revenue growth and scaling of our health offerings, including virtual care adoption; (ii) higher product and service costs in supporting growth across our subscriber connections, including TV subscribers; (iii) higher advertising and promotional costs relative to subdued marketing activity at the outset of the pandemic in 2020; and (iv) growth in business operations related to scaling of our digital capabilities. These increases were partly offset by lower mobile handset upgrades as described above, lower bad debt expense, and lower commissions expense associated with an increased mix of digital sales and lower handset upgrade volumes in current and prior periods. Goods and services purchased increased by \$315 million in the first nine months of 2021 mainly due to higher mobile equipment sales expense as described above, partly offset by lower non-labour-related restructuring costs, in addition to the other factors described for the quarter.
- **Employee benefits expense** increased by \$136 million in the third quarter of 2021 and \$418 million in the first nine months of 2021, largely due to: (i) higher compensation and benefit costs resulting from an increase in the number of employees related to business acquisitions and organic DLCX revenue growth; (ii) merit-based compensation increases; and (iii) higher share-based compensation as a result of the mark-to-market adjustment on liability-accounted awards from an increased TI share price. These employee benefits expense increases were partly offset by higher capitalized labour costs.
- **Depreciation** decreased by \$10 million in the third quarter of 2021 as the depreciation arising from growth in capital assets over the past 12 months, including our expanded broadband footprint and business acquisitions, was more than offset by lower depreciation on right-of-use lease assets. In the first nine months of 2021, increased depreciation of \$13 million was due to the aforementioned growth in capital assets, partly offset by the effect of accelerated depreciation in the comparative period from increased asset retirement activity.
- **Amortization of intangible assets** increased by \$41 million in the third quarter of 2021 and \$150 million in the first nine months of 2021 arising from business acquisitions and higher expenditures associated with the intangible asset base over the past 12 months.

Operating income

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
TTech EBITDA ¹ (See Section 5.4)	1,355	1,258	7.7%	4,014	3,756	6.9%
DLCX EBITDA ¹ (See Section 5.5)	141	132	6.7%	394	402	(2.1)%
EBITDA ¹	1,496	1,390	7.6%	4,408	4,158	6.0%
Depreciation and amortization (discussed above)	(804)	(773)	4.0%	(2,386)	(2,223)	7.3%
Operating income (consolidated earnings before interest and income taxes (EBIT))	692	617	12.2%	2,022	1,935	4.5%

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

Operating income increased by \$75 million in the third quarter of 2021 and \$87 million in the first nine months of 2021, while EBITDA increased by \$106 million in the third quarter of 2021 and \$250 million in the first nine months of 2021.

Excluding the second quarter of 2020 effects of a non-recurring gain on a retirement of a provision arising from business acquisition-related written put options within DLCX of \$71 million, Operating income increased by \$158 million in the first nine months of 2021, while EBITDA increased by \$321 million in the same period. This is reflective of growth in internet and third-wave data service margins, as well as other fixed data service margins, resulting from subscriber base growth and expanded services; growth in network revenue from increases in our mobile phone and connected devices subscriber bases; growth in mobile equipment margins; an increased contribution from our DLCX business; and lower bad debt expense. This was partly offset by higher employee benefits expense and lower legacy fixed voice and legacy fixed data services. Growth in the first nine months of 2021 also reflects lower non-labour restructuring and other costs related to the pandemic, partly offset by the dilutive lingering impacts of the pandemic, including reduced roaming margins related to travel restrictions.

Adjusted EBITDA

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
TTech Adjusted EBITDA ¹ (See Section 5.4)	1,410	1,314	7.4%	4,128	3,916	5.4%
DLCX Adjusted EBITDA ^{1,2} (See Section 5.5)	149	142	4.7%	424	376	12.6%
Adjusted EBITDA ¹	1,559	1,456	7.1%	4,552	4,292	6.0%

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

2 For certain financial metrics, there are definitional differences between TELUS and TELUS International reporting. These differences largely arise from TELUS International adopting definitions consistent with practice in its industry.

Adjusted EBITDA increased by \$103 million or 7.1% in the third quarter of 2021 and \$260 million or 6.0% in the first nine months of 2021, reflecting the drivers mentioned in the Operating income discussion above.

Financing costs

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Interest on long-term debt, excluding lease liabilities – gross	172	169	1.8%	515	508	1.4%
Interest on long-term debt, excluding lease liabilities – capitalized	—	(11)	(100.0)%	—	(28)	(100.0)%
Interest on lease liabilities	16	17	(5.9)%	50	52	(3.8)%
Interest on short-term borrowings and other	3	1	n/m	10	5	100.0%
Interest accretion on provisions	3	4	(25.0)%	14	13	7.7%
Long-term debt prepayment premium	10	—	n/m	10	18	(44.4)%
Interest expense	204	180	13.3%	599	568	5.5%
Employee defined benefit plans net interest	6	4	50.0%	19	12	58.3%
Foreign exchange (gains) losses	(5)	5	n/m	—	6	(100.0)%
Interest income	(11)	(2)	n/m	(14)	(5)	n/m
Financing costs	194	187	3.7%	604	581	4.0%

Financing costs increased by \$7 million in the third quarter of 2021 and \$23 million in the first nine months of 2021, mainly due to the following factors:

- **Interest expense** increased by \$24 million in the third quarter of 2021 and \$31 million in the first nine months of 2021. These changes largely resulted from the following:
 - Gross interest on long-term debt, excluding lease liabilities, increased by \$3 million in the third quarter of 2021 and \$7 million in the first nine months of 2021, driven by an increase in average long-term debt balances outstanding in part attributable to business acquisitions, and an increase in the blended effective interest rate. Our weighted average interest rate on long-term debt (excluding commercial paper, the revolving component of the TI credit facility, lease liabilities and other long-term debt) was 3.72% at September 30, 2021, as compared to 3.85% one year earlier. (See *Long-term debt issues, redemptions and repayments* in Section 7.4.)
 - Capitalized long-term debt interest, excluding lease liabilities, is in respect of debt incurred for the purchase of spectrum licences during the 600 MHz spectrum auction held in April 2019 by Innovation, Science and Economic Development Canada (ISED). The capitalization of interest ceased in the first quarter of 2021 as we commenced deploying this spectrum into our existing network.
 - We recorded a long-term debt prepayment premium of \$10 million before income taxes related to the early redemption of all of our \$1 billion Notes, Series CT, as described in Section 1.3. In the second quarter of 2020, we recorded a long-term debt prepayment premium of \$18 million before income taxes related to the early redemption of all of our \$400 million Notes, Series CM, and all of our \$500 million Notes, Series CO.

- **Employee defined benefit plans net interest** increased by \$2 million in the third quarter of 2021 and \$7 million in the first nine months of 2021, primarily due to the change in the defined benefit plan deficit as at December 31, 2020 to \$913 million (net of the plan asset ceiling limit of \$123 million) compared to the defined benefit plan deficit of \$425 million (net of the plan asset ceiling limit of \$121 million) one year earlier, partly offset by a decrease in the discount rate.
- **Foreign exchange gains** changed by \$10 million in the third quarter of 2021 and \$6 million in the first nine months of 2021, primarily reflecting changes in the value of the Canadian dollar relative to the U.S. dollar.
- **Interest income** increased by \$9 million in both the third quarter of 2021 and first nine months of 2021 due to the settlement of prior years’ income tax-related matters.

Income taxes

(\$ in millions, except tax rates)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Income taxes computed at applicable statutory rates (%)	25.9	25.9	— pts.	25.8	26.2	(0.4) pts.
Revaluation of deferred income tax liability to reflect future income tax rates (%)	—	(0.7)	0.7 pts.	—	(0.6)	0.6 pts.
Adjustments recognized in the current period for income taxes of prior periods (%)	0.6	0.2	0.4 pts.	(0.8)	0.3	(1.1) pts.
Non-deductible amounts (%)	1.4	(0.7)	2.1 pts.	1.3	0.5	0.8 pts.
Other (%)	0.2	0.7	(0.5) pts.	0.7	0.5	0.2 pts.
Effective tax rate (%)	28.1	25.4	2.7 pts.	27.0	26.9	0.1 pts.
Income tax computed at applicable statutory rates	129	111	16.2%	365	354	3.1%
Revaluation of deferred income tax liability to reflect future income tax rates	—	(3)	(100.0)%	—	(8)	(100.0)%
Adjustments recognized in the current period for income taxes of prior periods	3	1	n/m	(11)	5	n/m
Non-deductible amounts	7	(3)	n/m	19	7	n/m
Other	1	3	(66.7)%	10	7	42.9%
Income taxes	140	109	28.4%	383	365	4.9%

Total income tax expense increased by \$31 million in the third quarter of 2021 and \$18 million in the first nine months of 2021. The effective tax rate increased from 25.4% to 28.1% in the third quarter of 2021, primarily due to greater non-deductible amounts in the current period in addition to tax adjustments recognized in the current period for income taxes of prior periods. The effective tax rate was 27.0% in the first nine months of 2021, which was relatively unchanged compared to the effective tax rate in the first nine months of 2020.

Comprehensive income

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Net income	358	321	11.5%	1,035	989	4.7%
Other comprehensive income (net of income taxes):						
Items that may be subsequently reclassified to income	93	(63)	n/m	92	104	(11.5)%
Items never subsequently reclassified to income	72	69	4.3%	846	(284)	n/m
Comprehensive income	523	327	59.9%	1,973	809	143.9%

Comprehensive income increased by \$196 million in the third quarter of 2021, mainly attributed to changes in unrealized fair value of derivatives classified as cash flow hedges. In the first nine months of 2021, Comprehensive income increased by \$1,164 million, primarily attributed to employee defined benefit plans re-measurement amounts. Items that may subsequently be reclassified to income are composed of changes in the unrealized fair value of derivatives designated as cash flow hedges and foreign currency translation adjustments arising from translating financial statements of foreign operations. Items never subsequently reclassified to income are composed of employee defined benefit plans re-measurement amounts and changes in measurement of investment financial assets.

5.4 TELUS technology solutions segment**TTech trends and seasonality**

The nature of the COVID-19 pandemic has had significant impacts on our business. The pandemic prevents us and our customers from operating in the normal course of business in certain areas and we expect the pandemic to continue to affect our operations until at least 2022. For example, with government and land border restrictions, consumer and business travel levels are uncertain, which negatively impacts roaming revenues. As well, our business customers who use our services are faced with reduced and/or closed operations. Additionally, our health services offerings are impacted as TELUS Health Care Centres were unable to provide their full suite of core services in 2020 and are

operating at reduced volume in 2021. Impacts directly associated with the pandemic, such as the reduction of roaming revenue, may be temporary in nature and have the potential to return to pre-pandemic levels once the pandemic has subsided or ended.

The historical trend over the past eight quarters in mobile network revenue reflects growth in our mobile phone subscriber base, as well as the acceleration of IoT connections. This is partly offset by declining mobile phone ARPU, primarily due to: (i) the impacts of the COVID-19 pandemic on international travel and international roaming revenues; (ii) carriers offering larger allotments of data, as well as rate plans that include bonus data, unlimited data plans and data sharing; (iii) consumer behavioural response to more frequent customer data usage notifications and offloading of data traffic to increasingly available Wi-Fi hotspots, including within the home as a result of the pandemic. This decline in growth has been partly offset by an increased mix of higher-value rate plans and an increased proportion of higher-value customers in the subscriber mix. As a result of changing industry dynamics, customers have been able to gain access to higher network speeds and larger allotments of data included for a given price point, further limiting mobile phone ARPU expansion, as customers are continuing to obtain plans with a lower cost per gigabyte.

Mobile equipment revenue growth has been moderating, in large part due to the impacts of various waves of the pandemic on our retail traffic, both in terms of mandated health restrictions and customer behaviour commencing from the previously noted temporary closure of our retail outlets in 2020. This has been partly offset by our digital and other direct fulfilment channels, and more recently, the suppressed handset upgrade volumes throughout 2020 manifesting in increased demand in the first half of 2021. Over the past eight quarters, an increase of higher-value smartphones in the sales mix has been offset by a lower volume of new contracts due to: (i) the improving durability and increasing cost of popular devices that result in customers deferring upgrades; (ii) growing adoption of device financing arrangements, which provide transparency of full device costs and result in customers deferring device upgrades; and (iii) most recently, the effects of the pandemic on customers, the industry, global chipset constraints in our supply chain and methods of distribution, and the Canadian economy.

The general trend of year-over-year increases in mobile phone subscriber net additions resulted from: (i) the success of our promotions, including the bundling of our mobility and home services, and the leveraging of our digital sales channels; (ii) the effects of market growth arising from a growing population, changing population demographics and an increasing number of customers with multiple devices; (iii) continuous improvements in the speed and quality of our network; and (iv) our low churn rate, which reflects our customers first efforts, upgrade volume programs and focus on building, maintaining and enhancing our high-quality network. Additionally, the pandemic has caused customers to change their behaviour, such as reducing travel and making fewer visits to retail outlets, thereby reducing churn.

Our connected device subscriber base has been growing primarily as a result of our expanded IoT offerings, partly offset by our strategic decision to reduce loading of low or negative-margin tablets. Our spectrum investments and capital expenditures on network improvements increase capacity and coverage, allowing us to grow revenue through net additions of mobile phone and connected devices subscribers.

We expect ongoing internet subscriber base growth as we continue our investments in expanding our fibre-optic infrastructure, supplemented with our low customer churn rate. The total number of TV subscribers has increased (in contrast to market-reported declines in traditional television viewing habits) as a result of stable net additions in response to our diverse and flexible product offerings, combined with our low customer churn rate. Security subscriber base growth is increasing as a result of business acquisitions and organic growth. Home services growth has also been attributed to the adoption of the TELUS Whole Home bundle and bundling of our mobility and home services to meet the demand of multiple services per home where adoption increases our services per home and positively impacts churn for most products. Residential voice subscriber losses continue to reflect the ongoing trend of substitution to mobile and internet-based services, but were partly mitigated by the success of our bundled service offerings and lower-priced offerings.

The trend of growing fixed data services revenues (excluding smart food-chain technology, which is separately described below) is due to the continued appetite for faster internet speeds, third-wave products and larger bandwidth, as well as our diverse suite of TV, home and business security, and other advanced application offerings, which are enabled by our investments in our fibre-optic footprint. The trend of declining legacy fixed voice revenues is due to technological substitution and intensification of competition in the small and medium-sized business market; however, our rate of decline has been moderating with our utilization of bundled product offerings and successful retention efforts. The migration of business product and service offerings to IP services and the introduction of new competitors have yielded inherently lower margins compared to some legacy business product and service offerings; however, we are continually refining and diversifying our innovative suite of business offerings, including our Software as a Service (SaaS)-based solutions.

The trend of digitization has propelled the adoption of our health offerings, including virtual care solutions, collaborative health records, health benefits management and personal health monitoring solutions. In health, we are well positioned to improve the lives and outcomes for Canadians. The trend in digitization and automation, combined

with the general shortage in primary care, positions us well to bolster the Canadian healthcare system in a complementary fashion. With our technology heritage, we see the trend moving the healthcare system to improved efficiency and improved outcomes through better insights. We also believe Canadians will have greater control of their healthcare outcomes through the integration of disparate data (better flow of information across the system) and consent-based management. While the pandemic has disrupted the operations of our TELUS Health Care Centres since March 2020, our diversified virtual care offerings continue to grow to meet the healthcare needs of Canadians and drive better health outcomes, including the accelerated adoption of virtual consultations, as reflected in our growing virtual care members. Our health benefits management solution is influenced by the number of lives covered and the number of benefit claims, which were disrupted by the pandemic. We expect the demand for these services to resume in correspondence with the effectiveness of COVID-19 vaccinations and higher employment rates.

The trend of greater use of digital solutions within the agriculture industry is due to increased demand for data and analytical insights to drive more effective and agile decision-making to address changing consumer demands and improve profitability. We are committed to providing solutions to create a better flow of information across the value chain, improving the safety and sustainability of our food system. Within the verticals of agri-business; food, beverage, and consumer goods; and animal agriculture, we are expanding our solutions and customer base worldwide through acquisitions and organic growth.

TTech operating indicators

At September 30	2021	2020	Change			
Subscriber connections (000s):						
Mobile phone ¹	9,178	8,836	3.9%			
Connected device	2,053	1,708	20.2%			
Internet ²	2,231	2,094	6.5%			
TV	1,247	1,195	4.4%			
Residential voice	1,133	1,173	(3.4)%			
Security	773	684	13.0%			
Total TTech subscriber connections	16,615	15,690	5.9%			
LTE population coverage ³ (millions)	37.0	37.0	— %			
5G population coverage ³ (millions)	24.1	7.3	n/m			
Virtual care members (millions)	2.3	1.4	64.3%			
Healthcare lives covered (millions)	19.3	16.0	20.6%			
	Third quarters ended September 30		Nine-month periods ended September 30			
	2021	2020	Change	2021	2020	Change
Mobile phone gross additions (000s):	380	370	2.7%	955	903	5.8%
Subscriber connection net additions (losses) (000s):						
Mobile phone	135	111	21.6%	255	193	32.1%
Connected device	110	87	26.4%	257	169	52.1%
Internet	46	50	(8.0)%	109	113	(3.5)%
TV	10	19	(47.4)%	32	35	(8.6)%
Residential voice	(11)	(8)	(37.5)%	(31)	(31)	— %
Security	30	18	66.7%	66	45	46.7%
Total TTech subscriber connection net additions	320	277	15.5%	688	524	31.3%
Mobile phone ABPU, per month ^{1,4} (\$)	70.99	71.01	— %	69.75	70.72	(1.4)%
Mobile phone ARPU, per month ^{1,4} (\$)	58.13	58.12	— %	56.94	57.56	(1.1)%
Mobile phone churn, per month ^{1,4} (%)	0.90	0.99	(0.09) pts.	0.87	0.91	(0.04) pts.
Digital health transactions (millions)	137.9	136.0	1.4%	408.3	399.8	2.1%

- 1 Effective January 1, 2021 with retrospective application to January 1, 2020, in alignment with our segment reporting changes, we made a retroactive adjustment to remove internal network service revenue and approximately 29,000 subscribers from our mobile phone subscriber base and associated operating statistics (ABPU, ARPU and churn). Internal network service revenue consists of earned revenue from both our internal mobile phone and connected devices subscribers, neither of which contribute to our restated subscriber base.
- 2 Effective January 1, 2021 on a prospective basis, following an in-depth review of customer accounts within a legacy subscriber provisioning system to be decommissioned, we adjusted our internet subscriber base to remove 16,000 subscribers.
- 3 Including network access agreements with other Canadian carriers.
- 4 See Section 11.2 Operating indicators. These are industry measures useful in assessing operating performance of a mobile products and services company, but are not measures defined under IFRS-IASB.

- **Mobile phone gross additions** were 380,000 in the third quarter of 2021 and 955,000 in the first nine months of 2021, reflecting increases of 10,000 for the quarter and 52,000 for the nine-month period, driven by growth in high-value customer additions, successful promotions including the bundling of our mobility and home services, expanded channels, and the enhanced capabilities of our digital footprint, inclusive of increased self-serve functions. Gross additions in 2020 were significantly impacted by the pandemic, including the temporary closure of approximately 90% of our retail outlets commencing in March 2020 through the majority of the second quarter of 2020, as previously noted.
- **Mobile phone net additions** were 135,000 in the third quarter of 2021 and 255,000 in the first nine months of 2021, reflecting increases of 24,000 for the quarter and 62,000 for the nine-month period, demonstrating our strong execution in digital sales and expanded channels and our successful efforts to drive high-value customer net additions, inclusive of our consistently low customer churn, as discussed below.
- Our **mobile phone churn rate** was 0.90% in the third quarter of 2021, compared to 0.99% in the third quarter of 2020, reflecting the non-recurrence of an increase in customer switching activity across the industry that took place in the third quarter of 2020, as approximately 90% of our retail outlets were temporarily closed commencing in March 2020 through the majority of the second quarter of 2020, in addition to inventory shortages across the industry that began to emerge in the third quarter of 2021 due to global supply chain challenges. Our mobile phone churn rate was 0.87% in the first nine months of 2021, as compared to 0.91% in the first nine months of 2020. These relatively low churn rates in the current and comparative periods reflect the impacts of the pandemic, with customers reducing their general shopping habits in retail outlets since the start of the pandemic, along with mandated capacity restrictions. Churn continues to benefit from our successful bundling of mobility and home services, our focus on executing customers first initiatives and upgrade volume programs, and our leading network quality.
- **Mobile phone ABPU** was \$70.99 in the third quarter of 2021, relatively unchanged compared to the third quarter of 2020, as continued declines in chargeable data usage, as well as the impact of the competitive environment putting pressure on base rate plan prices in the current and prior periods, were fully offset by growth in monthly recurring charges caused by a greater mix of high-value customer additions, selection of higher-tier mobile plans, and higher-value smartphones in the sales mix in the current and prior periods. This was in addition to modestly higher roaming revenues as international travel began to recover in the third quarter of 2021, albeit well below seasonal pre-pandemic levels.

Mobile phone ABPU was \$69.75 in the first nine months of 2021, reflecting a decrease of \$0.97 or 1.4% due to the drivers described above, in addition to the lingering impacts caused by the COVID-19 pandemic, most notably with significantly reduced roaming revenue in the first quarter of 2021 related to travel restrictions.

- **Mobile phone ARPU** was \$58.13 in the third quarter of 2021, relatively unchanged compared to the third quarter of 2020. Meanwhile, mobile phone ARPU was \$56.94 in the first nine months of 2021, which decreased by \$0.62 or 1.1% for the nine-month period. Mobile phone ARPU was impacted by the same items noted above for mobile phone ABPU, with the exception of: (i) our TELUS Easy Payment device financing program; (ii) devices with subsidies; and (iii) contracted device upgrades.
- **Connected device net additions** were 110,000 in the third quarter of 2021, representing our highest quarterly net additions on record, and 257,000 in the first nine months of 2021, reflecting increases of 23,000 for the quarter and 88,000 for the nine-month period, primarily due to increased demand for IoT solutions from new and existing customers.
- **Internet net additions** were 46,000 in the third quarter of 2021 and 109,000 in the first nine months of 2021, reflecting a decrease of 4,000 for both the quarter and the nine-month period. The decreases were due to pandemic-related demand decline, higher deactivations and lower market demand relative to the subdued switching activity and record loading in 2020. This offset our success in driving strong net additions through bundled product offerings, including the TELUS Whole Home bundle and our bundling of mobility and home services.
- **TV net additions** were 10,000 in the third quarter of 2021 and 32,000 in the first nine months of 2021, reflecting decreases of 9,000 for the quarter and 3,000 for the nine-month period, mainly due to lower market demand, primarily in the business market, offsetting the success of our bundled product offerings.
- **Residential voice net losses** were 11,000 in the third quarter of 2021 and 31,000 in the first nine months of 2021, compared to residential voice net losses of 8,000 and 31,000, respectively, in the same periods in 2020. The residential voice subscriber losses continue to reflect the trend of substitution to mobile and internet-based services, partially mitigated by our expanding fibre footprint and bundled product offerings, as well as our strong retention efforts, including lower-priced offerings.

- **Security net additions** were 30,000 in the third quarter of 2021 and 66,000 in the first nine months of 2021, reflecting increases of 12,000 for the quarter and 21,000 for the nine-month period, driven by strong growth of new connections through demand for our bundled product offerings and diverse suite of products and services. Our continued focus on connecting more homes and businesses directly to fibre, expanding and enhancing our addressable high-speed internet and Optik TV footprint, and bundling these services together, contributed to combined internet, TV and security subscriber growth of 278,000 over the past 12 months.
- **Virtual care members** were 2.3 million as of the end of the third quarter of 2021, an increase of 0.9 million over the past 12 months, due to the continued adoption of virtual solutions to keep Canadians safely connected to health and wellness care during the pandemic, as well as a business acquisition in the fourth quarter of 2020.
- **Healthcare lives covered** were 19.3 million as of the end of the third quarter of 2021, an increase of 3.3 million over the past 12 months, mainly due to the continued demand for virtual solutions and an increase in value-added services such as vaccinations solutions. See *TTech trends and seasonality* for further details.
- **Digital health transactions** were 137.9 million in the third quarter of 2021, reflecting an increase of 1.9 million for the quarter, driven by higher collaborative health transactions from a business acquisition. Digital health transactions in the first nine months of 2021 were 408.3 million, reflecting growth of 8.5 million for the nine-month period, largely driven by a higher number of transport, eClaims and collaborative health transactions from a business acquisition as plan members resume the utilization of elective health services with pandemic restrictions easing.

Operating revenues and other income – TTech segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Mobile network revenue	1,588	1,532	3.7%	4,617	4,515	2.3%
Mobile equipment and other service revenues	523	539	(3.0)%	1,497	1,270	17.9%
Fixed data services	1,109	983	12.8%	3,267	2,906	12.4%
Fixed voice services	208	222	(6.3)%	636	694	(8.4)%
Fixed equipment and other service revenues	101	108	(6.5)%	308	298	3.4%
Health services	130	116	12.1%	380	329	15.5%
Operating revenues (arising from contracts with customers)	3,659	3,500	4.5%	10,705	10,012	6.9%
Other income	5	20	(75.0)%	9	20	(55.0)%
External Operating revenues and other income	3,664	3,520	4.1%	10,714	10,032	6.8%
Intersegment revenues	5	4	25.0%	15	9	66.7%
TTech Operating revenues and other income	3,669	3,524	4.1%	10,729	10,041	6.9%

TTech Operating revenues and other income increased by \$145 million in the third quarter of 2021 and \$688 million in the first nine months of 2021.

Mobile network revenue increased by \$56 million or 3.7% in the third quarter of 2021, due to growth of 6.5% in the mobile phones and connected devices subscriber base over the past 12 months, in addition to stable mobile phone ARPU, as described above. Mobile network revenue increased by \$102 million or 2.3% in the first nine months of 2021, due to the aforementioned growth in our subscriber base over the past 12 months, partly offset by lower mobile phone ARPU, as described above.

Mobile equipment and other service revenues decreased by \$16 million in the third quarter of 2021, reflecting lower handset upgrade volumes, largely due to the non-recurrence of heightened demand for handsets in the third quarter of 2020 attributable to the temporary closure of approximately 90% of our retail outlets through most of the second quarter of 2020, in addition to recent global supply chain challenges, including industry-wide mobile handset inventory constraints that began to emerge in the third quarter of 2021. These factors were partly offset by higher-value smartphones in the sales mix. Mobile equipment and other services revenues increased by \$227 million in the first nine months of 2021, reflecting higher handset upgrade volumes and higher-value smartphones in the sales mix. Handset upgrades were significantly impacted by the pandemic in 2020, including the temporary closure of approximately 90% of our retail outlets from March 2020 through most of the second quarter, and customers reducing their general shopping habits in retail outlets since the start of the pandemic, which resulted in lower contracted volume and accessory sales. Handset upgrade volumes increased as a result of the successful execution of our customers first initiatives, including the enhanced capabilities of our digital footprint, and suppressed handset upgrade volumes throughout 2020 manifesting in increased demand in 2021. These factors have been partly offset by the recent global supply chain challenges mentioned above.

Fixed data services revenues increased by \$126 million in the third quarter of 2021 and \$361 million in the first nine months of 2021. The increases were driven by: (i) increased internet and third-wave data service revenues, reflecting a 6.5% increase in our internet subscribers over the past 12 months and higher revenue per customer resulting from

internet speed upgrades, larger data usage internet rate plans and rate changes; (ii) increased revenues from smart food-chain technology, driven by business acquisitions; (iii) higher TV revenues, reflecting subscriber growth of 4.4% over the past 12 months; and (iv) increased revenues from home and business security driven by expanded services and customer growth of 13.0% over the past 12 months. This growth was partly offset by the ongoing decline in legacy data service revenues.

Fixed voice services revenues decreased by \$14 million in the third quarter of 2021 and \$58 million in the first nine months of 2021, reflecting the ongoing decline in legacy voice revenues resulting from technological substitution and price plan changes. Declines were moderated with our utilization of bundled product offerings, successful retention efforts and the migration from legacy to IP services offerings. The decline in residential voice subscribers over the past 12 months was 3.4%, compared to a 3.5% decline in residential voice subscribers for the 12-month period ended September 30, 2020.

Fixed equipment and other service revenues decreased by \$7 million in the third quarter of 2021, mainly from home and business security equipment sales. The first nine months of 2021 increased by \$10 million, reflecting a higher volume of home and business security equipment sales and data equipment sales.

Health services revenues increased by \$14 million in the third quarter of 2021, mainly driven by business acquisitions and growth in health benefits management services with plan members resuming the use of elective health services. The first nine months of 2021 increased by \$51 million driven by: (i) business acquisitions; (ii) increased in-clinic services in our reopened TELUS Health Care Centres, whereas clinics were closed in mandated lockdowns last year; (iii) higher revenues from the continued adoption of our virtual care solutions; and (iv) growth in health benefits management services as previously noted.

Intersegment revenues represent services provided to the DLCX segment that are eliminated upon consolidation, together with the associated DLCX expenses.

Direct contribution – TTech segment

Third quarters ended September 30 (\$ in millions)	Mobile products and services ¹			Fixed products and services ¹			Total TTech		
	2021	2020	Change	2021	2020	Change	2021	2020	Change
REVENUES									
Service	1,611	1,553	3.7%	1,471	1,359	8.2%	3,082	2,912	5.8%
Equipment	501	521	(3.8)%	76	67	13.4%	577	588	(1.9)%
Operating revenues (arising from contracts with customers)	2,112	2,074	1.8%	1,547	1,426	8.5%	3,659	3,500	4.5%
EXPENSES									
Direct expenses	684	742	(7.8)%	434	389	11.6%	1,118	1,131	(1.1)%
Direct contribution	1,428	1,332	7.2%	1,113	1,037	7.3%	2,541	2,369	7.3%

Direct contribution – TTech segment

Nine-month periods ended September 30 (\$ in millions)	Mobile products and services ¹			Fixed products and services ¹			Total TTech		
	2021	2020	Change	2021	2020	Change	2021	2020	Change
REVENUES									
Service	4,681	4,561	2.6%	4,377	4,039	8.4%	9,058	8,600	5.3%
Equipment	1,440	1,230	17.1%	207	182	13.7%	1,647	1,412	16.6%
Operating revenues (arising from contracts with customers)	6,121	5,791	5.7%	4,584	4,221	8.6%	10,705	10,012	6.9%
EXPENSES									
Direct expenses	1,985	1,850	7.3%	1,297	1,132	14.6%	3,282	2,982	10.1%
Direct contribution	4,136	3,941	4.9%	3,287	3,089	6.4%	7,423	7,030	5.6%

¹ Includes health services.

The direct expenses included in the direct contribution calculations in the preceding tables represent a component of the Goods and services purchased and Employee benefits expense totals included in the table below and have been calculated in accordance with the accounting policies used to prepare the totals presented in the financial statements. TTech direct contribution increased by \$172 million or 7.3% in the third quarter of 2021 and \$393 million or 5.6% in the first nine months of 2021.

TTech mobile products and services direct contribution increased by \$96 million or 7.2% in the third quarter of 2021 due to higher network revenues, inclusive of a modest improvement in year-over-year roaming revenues, higher equipment margins and lower commissions expenses as we continue to drive customer transactions to digital channels, in addition to lower contracted volumes in the current and prior periods. Mobile products and services direct contribution increased by \$195 million or 4.9% in the first nine months of 2021 due to the similar factors described above, partly offset by the lingering effects of the pandemic on our business, such as lower roaming margins, which were not as prevalent in the first quarter of 2020.

TTech fixed product and services direct contribution increased by \$76 million or 7.3% in the third quarter of 2021 due to growth in margins for internet and data services, smart food-chain technology and health services, partly offset by declining legacy data and legacy voice margins. Fixed products and services direct contribution increased by \$198 million or 6.4% in the first nine months of 2021 due to the similar factors described above, partly offset by the lingering effects of the pandemic on our business, which were not as prevalent in the first quarter of 2020.

Operating expenses – TTech segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Goods and services purchased ¹	1,635	1,646	(0.7)%	4,759	4,507	5.6%
Employee benefits expense ¹	679	620	9.5%	1,956	1,778	10.0%
TTech operating expenses	2,314	2,266	2.1%	6,715	6,285	6.8%

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

TTech operating expenses increased by \$48 million in the third quarter of 2021 and \$430 million in the first nine months of 2021.

Goods and services purchased decreased by \$11 million in the third quarter of 2021, reflecting (i) lower mobile equipment sales expense largely from lower handset upgrades as described above, partly offset by higher-value mobile devices in the sales mix, (ii) lower bad debt expenses, and (iii) lower commissions expense associated with an increased mix of digital sales and lower handset upgrade volumes in the current and prior periods. These factors were partly offset by (i) higher costs related to business acquisitions and scaling of our health offerings, including virtual care adoption; (ii) higher product and services costs in support of our growing subscriber connections, including TV subscribers; (iii) higher advertising and promotional costs relative to subdued marketing activity at the outset of the pandemic in 2020; and (iv) higher costs related to the scaling of our digital capabilities. Conversely, goods and services purchased increased by \$252 million in the first nine months of 2021, mainly due to higher mobile equipment sales expense largely from higher handset upgrades in addition to higher-value mobile devices in the sales mix, partly offset by lower non-labour-related restructuring costs, in addition to the other factors described above for the quarter.

Employee benefits expense increased by \$59 million in the third quarter of 2021 and \$178 million in the first nine months of 2021, primarily due to an increase in compensation and benefits costs resulting from an increase in the number of employees related to business acquisitions in our health and smart food-chain technology solutions businesses, as well as merit-based compensation increases. The increases were partly offset by higher capitalized labour costs.

EBITDA – TTech segment

(\$ in millions, except margins)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
EBITDA ¹	1,355	1,258	7.7%	4,014	3,756	6.9%
Add restructuring and other costs included in EBITDA	55	48	n/m	112	143	n/m
Add other equity losses related to real estate joint ventures	—	8	n/m	2	17	n/m
Adjusted EBITDA ¹	1,410	1,314	7.4%	4,128	3,916	5.4%
EBITDA margin ¹ (%)	37.0	35.7	1.3 pts.	37.4	37.4	— pts.
Adjusted EBITDA margin ^{1,2} (%)	38.4	37.2	1.2 pts.	38.5	38.9	(0.4) pts.

¹ See description under EBITDA in Section 11.1 Non-GAAP and other financial measures.

² Adjusted EBITDA margin is Adjusted EBITDA divided by Operating revenues and other income, where the calculation of Operating revenues and other income excludes other equity losses related to real estate joint ventures.

TTech EBITDA increased by \$97 million or 7.7% in the third quarter of 2021 and \$258 million or 6.9% in the first nine months of 2021. TTech Adjusted EBITDA increased by \$96 million or 7.4% in the third quarter of 2021 and \$212 million or 5.4% in the first nine months of 2021, reflecting an increase in direct contribution, as mentioned above, and lower bad debt expense. These impacts were partially offset by higher employee benefits expense, operating and administrative

costs related to business acquisitions and growth in business operations, in addition to higher advertising and promotional costs relative to subdued marketing activity in 2020.

EBIT – TTech segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
EBITDA ¹	1,355	1,258	7.7%	4,014	3,756	6.9%
Depreciation	(494)	(506)	(2.4)%	(1,474)	(1,469)	0.3%
Amortization	(231)	(202)	14.4%	(672)	(574)	17.1%
EBIT ¹	630	550	14.5%	1,868	1,713	9.0%

1 See descriptions under *EBITDA* and *EBIT* in Section 11.1 *Non-GAAP and other financial measures*.

TTech EBIT increased by \$80 million in the third quarter of 2021 and \$155 million in the first nine months of 2021. Depreciation and amortization increased in the third quarter of 2021 and the first nine months of 2021 due to business acquisitions and growth in capital assets over the last 12 months, including our expanded fibre footprint and 5G network roll-out, partially offset by lower depreciation on right-of-use lease assets. The depreciation increase in the first nine months of 2021 was partially offset by the effect of accelerated depreciation in the first quarter of 2020 from asset retirement activity.

5.5 Digitally-led customer experiences – TELUS International segment

DLCX trends

Over the past eight quarters, the COVID-19 pandemic has impacted our business and we are not able to estimate its ultimate duration or the extent of its impact. As our service delivery centres are located in multiple geographic regions, the varying degrees of severity and recovery efforts from the pandemic in the countries we operate has required us to evolve our business operations. As of the date of this report, the majority of our team members continue to work remotely, as they have since the onset of the pandemic, and in some cases we have thoughtfully and strategically returned team members to delivery locations. Over the past few quarters, we were able to largely mitigate the negative impact on our financial condition, financial performance and operating cash flows by taking steps to strategically grow our client base and contain costs. The pandemic prevents us and our clients from operating in the normal course of business in certain areas, and we are unable to quantify with precision the impact that the pandemic has had or will have on our revenue. We expect the pandemic to continue to affect our operations into at least the first half of 2022.

The trend over the past eight quarters of increases in DLCX revenue reflects both the growth in our organic customer base, as well as the scale-up of new service programs provided to existing external customers. The higher revenue also includes revenue from internal services provided to the TTech segment and revenue growth from business acquisitions, including our acquisitions of CCC on January 31, 2020, and Lionbridge AI on December 31, 2020 with the business subsequently rebranded to TELUS International AI Data Solutions (TIAI).

Goods and services purchased and Employee benefits expense have increased in correspondence with increases in our team member base as a result of business acquisitions and to service growing volumes from both our existing and new customers (including the expansion of our service offerings), increases in external labour to support the growth in our digital business, increases in our software licensing costs associated with our growing team member base, and increases in administrative expenses to support growth in the overall business and business acquisitions.

Depreciation and amortization have increased due to growth in capital assets, which is supporting the expansion of our sites required to service customer demand and growth in intangible assets recognized in connection with our business acquisitions.

DLCX operating indicators

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Operating revenues by industry vertical						
Tech and games	316	229	38.0%	901	614	46.7%
Communications and media	171	164	4.3%	497	489	1.6%
eCommerce and fintech	88	60	46.7%	233	169	37.9%
Travel and hospitality	20	17	17.6%	54	52	3.8%
Healthcare	14	12	16.7%	43	35	22.9%
Other ¹	91	86	5.8%	269	217	24.0%
	700	568	23.2%	1,997	1,576	26.7%
Operating revenues by geographic region						
Europe	292	230	27.0%	839	628	33.6%
North America	157	128	22.7%	454	349	30.1%
Asia-Pacific	152	116	31.0%	414	340	21.8%
Central America	99	94	5.3%	290	259	12.0%
	700	568	23.2%	1,997	1,576	26.7%

1 Includes, among others, retail and other financial services. No individual vertical included in this category exceeds 3% of revenue.

Revenue from our tech and games industry vertical increased by \$87 million or 38.0% in the third quarter of 2021 and \$287 million or 46.7% in the first nine months of 2021. This represented 45% of Operating revenue for both the third quarter of 2021 and the first nine months of 2021, compared to 40% and 39% for the same periods in 2020. This growth is partly attributed to the acquisition of Lionbridge AI and continued growth within our existing clients and the addition of new clients, partially offset by the effect of foreign exchange rates. Revenue generated from the eCommerce and fintech industry vertical grew by \$28 million or 46.7% to \$88 million in the third quarter of 2021 and \$64 million or 37.9% to \$233 million in the first nine months of 2021, which was primarily attributed to new clients and growth within our existing client base, partly offset by the effect of foreign exchange rates.

We serve our clients, who are primarily domiciled in North America, from multiple delivery locations across four geographic regions. In addition, our TIAI clients are largely supported by crowdsourced contractors that are globally dispersed and not limited to the physical locations of our delivery centres. The table above presents the revenue generated in each geographic region, based on the location of our delivery centre or where the services were provided from, for the periods presented.

Operating revenues and other income – DLCX segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Operating revenues (arising from contracts with customers)	587	461	27.3%	1,672	1,268	31.9%
Other income	—	—	n/m	—	103	(100.0)%
External Operating revenues and other income	587	461	27.3%	1,672	1,371	22.0%
Intersegment revenues	113	107	5.6%	325	308	5.5%
DLCX Operating revenues and other income	700	568	23.2%	1,997	1,679	18.9%

DLCX Operating revenues and other income increased by \$132 million in the third quarter of 2021 and \$318 million in the first nine months of 2021.

Our **digital and customer experience solutions revenues** increased by \$126 million in the third quarter of 2021 and \$404 million in the first nine months of 2021, attributable in part to growth generated from our acquisitions, particularly within our tech and games clients as noted earlier. The remainder of the growth was organic, coming from growth in services provided to existing clients, as well as new clients added since the comparative periods in the prior year. This growth was offset, in part, by foreign exchange impacts in the third quarter of 2021 and first nine months of 2021 driven by the strengthening of the Canadian dollar compared to the U.S. dollar, the primary operating currency of DLCX.

Other income was \$NIL in the third quarter of 2021, unchanged compared to the third quarter of 2020. Other income decreased by \$103 million in the first nine months of 2021, largely related to the non-recurrence of the comparative period’s decrease and subsequent retirement of a provision arising from business acquisition-related written put options to acquire the remaining non-controlling interest of an acquired subsidiary, Xavient, which was settled in the second quarter of 2020.

Intersegment revenues represent services provided to the TTech segment, including those from the TELUS master services agreement. Such revenue is eliminated upon consolidation, together with the associated TTech expenses.

Operating expenses – DLCX segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Goods and services purchased ¹	143	97	47.4%	398	312	27.6%
Employee benefits expense ¹	416	339	22.7%	1,205	965	24.9%
DLCX operating expenses	559	436	28.2%	1,603	1,277	25.5%

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

DLCX operating expenses increased by \$123 million in the third quarter of 2021 and \$326 million in the first nine months of 2021.

Goods and services purchased increased by \$46 million in the third quarter of 2021 and \$86 million in the first nine months of 2021. The increases were largely due to our acquisitions, in particular TIAI’s crowdsourced contractors, for which the contracted labour costs are recognized in Goods and services purchased.

Employee benefits expense increased by \$77 million in the third quarter of 2021 and \$240 million in the first nine months of 2021 as a result of business growth, which has resulted in a higher team member count coupled with higher salaries and wages. The increases were also driven, in part, by greater share-based compensation expense associated with an increase in the share price of TELUS International (see Note 14(a) of the interim consolidated financial statements for further details).

EBITDA – DLCX segment

(\$ in millions, except margins)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
EBITDA ¹	141	132	6.7%	394	402	(2.1)%
Add restructuring and other costs included in EBITDA	8	10	n/m	30	45	n/m
Deduct retirement of a provision arising from business acquisition-related written put options within DLCX	—	—	n/m	—	(71)	n/m
Adjusted EBITDA^{1,2}	149	142	4.7%	424	376	12.6%
EBITDA margin ¹ (%)	20.0	23.1	(3.1) pts.	19.7	23.9	(4.2) pts.
Adjusted EBITDA margin^{1,3} (%)	21.1	24.8	(3.7) pts.	21.2	23.4	(2.2) pts.

1 See description under EBITDA in Section 11.1 Non-GAAP and other financial measures.

2 For certain metrics, there are definitional differences between TELUS and TELUS International reporting. These differences largely arise from TELUS International adopting definitions consistent with practice in its industry.

3 Adjusted EBITDA margin is Adjusted EBITDA divided by Operating revenues and other income, where the calculation of Operating revenues and other income excludes a retirement of a provision arising from business acquisition-related written put options within DLCX.

DLCX EBITDA increased by \$9 million or 6.7% in the third quarter of 2021 and decreased by \$8 million or 2.1% in the first nine months of 2021. DLCX Adjusted EBITDA increased by \$7 million or 4.7% in the third quarter of 2021 and \$48 million or 12.6% in the first nine months of 2021. While Adjusted EBITDA increased in both the third quarter and first nine months of 2021, Adjusted EBITDA margin decreased by 3.7 percentage points in the third quarter of 2021 and 2.2 percentage points in the first nine months of 2021. The decline in Adjusted EBITDA margin in both the third quarter and first nine months of 2021 was due to the impact of the mark-to-market adjustment on the liability-accounted share-based compensation units associated with an increase in the share price of TELUS International, and foreign exchange impacts on revenues as a result of the strengthening of the Canadian dollar compared to the U.S. dollar.

EBIT – DLCX segment

(\$ in millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
EBITDA ¹	141	132	6.7%	394	402	(2.1)%
Depreciation	(36)	(34)	5.9%	(107)	(99)	8.1%
Amortization	(43)	(31)	38.7%	(133)	(81)	64.2%
EBIT¹	62	67	(7.5)%	154	222	(30.6)%

1 See descriptions under EBITDA and EBIT in Section 11.1 Non-GAAP and other financial measures.

DLCX EBIT decreased by \$5 million in the third quarter of 2021 and \$68 million in the first nine months of 2021. Depreciation and amortization increased in the third quarter of 2021 and the first nine months of 2021 driven primarily by the acquisitions of CCC and Lionbridge AI and corresponding intangible assets acquired in fiscal 2020.

6. Changes in financial position

Financial position at: (\$ millions)	Sept. 30 2021	Dec. 31 2020	Change	Change includes:
Current assets				
Cash and temporary investments, net	1,864	848	1,016	See <i>Section 7 Liquidity and capital resources</i>
Accounts receivable	2,578	2,355	223	Increase primarily driven by digitally-led customer experiences – TELUS International (DLCX) receivable, as well as an increase in unbilled customer finance receivables from our Bring-It-Back [®] program and TELUS Easy Payment device financing program, partly offset by a decrease in sales volumes from our dealer and retail channels
Income and other taxes receivable	136	148	(12)	Instalments to date are greater than the expense
Inventories	332	407	(75)	A decrease in the volume of handsets
Contract assets	417	439	(22)	Refer to description in non-current contract assets
Prepaid expenses	581	484	97	An increase driven by the annual prepayment of statutory employee benefits, maintenance contracts, wireless spectrum licence fees, and property taxes
Current derivative assets	15	2	13	An increase in the notional amount of U.S. currency hedging items.
Current liabilities				
Short-term borrowings	102	100	2	See <i>Section 7.7 Sale of trade receivables</i>
Accounts payable and accrued liabilities	3,616	2,968	648	An increase in accounts payable associated with higher capital expenditures, as well as an increase in payroll and other employee-related liabilities. See <i>Note 23</i> of the interim consolidated financial statements
Income and other taxes payable	117	135	(18)	Instalments to date being greater than the expense
Dividends payable	430	403	27	Effects of increases in the number of shares outstanding, as well as dividend rate
Advance billings and customer deposits	796	772	24	An increase in advance billings reflecting increased wireless subscriber growth during the period, partly offset by a decrease in customer deposits. See <i>Note 24</i> of the interim consolidated financial statements
Provisions	81	73	8	An increase in new restructuring provisions in excess of restructuring disbursements
Current maturities of long-term debt	2,283	1,432	851	An increase in outstanding commercial paper
Current derivative liabilities	13	32	(19)	A decrease in the notional amount of U.S. currency hedging items.
Working capital (Current assets subtracting Current liabilities)	(1,515)	(1,232)	(283)	TELUS normally has a negative working capital position. See <i>Financing and capital structure management plans</i> in <i>Section 4.3</i> and the <i>Liquidity risk</i> discussion in <i>Section 7.9</i> .

Financial position at: (\$ millions)	Sept. 30 2021	Dec. 31 2020	Change	Change includes:
Non-current assets				
Property, plant and equipment, net	15,887	15,014	873	See <i>Capital expenditures</i> in <i>Section 7.3 Cash used by investing activities</i> and <i>Depreciation</i> in <i>Section 5.3 Consolidated operations</i>
Intangible assets, net	15,555	15,026	529	See <i>Capital expenditures</i> in <i>Section 7.3 Cash used by investing activities</i> and <i>Amortization of intangible assets</i> in <i>Section 5.3 Consolidated operations</i>
3500 MHz spectrum licences deposits	389	—	389	See <i>Section 7.3</i>
Goodwill, net	7,416	7,224	192	An increase primarily due to the acquisition of Blacksmith Applications Holdings Inc., as well as from individually immaterial business acquisitions, offset by the effect of translating TI financial statements into Canadian currency. See <i>Note 18</i> of the interim consolidated financial statements
Contract assets	246	268	(22)	A decrease driven by lower subsidized devices from the introduction of our TELUS Easy Payment device financing program
Other long-term assets	2,110	1,106	1,004	An increase in pension assets resulting from gains arising from financial assumption re-measurements and the effects of pension plan returns greater than the discount rate, as well as increases in the asset fair value of derivatives used to manage currency risk from U.S. dollar-denominated debt, unbilled customer finance receivables and portfolio investments. See <i>Note 20</i> of the interim consolidated financial statements.
Non-current liabilities				
Provisions	959	961	(2)	—
Long-term debt	18,250	18,856	(606)	See <i>Section 7.4 Cash provided (used) by financing activities</i>
Other long-term liabilities	771	1,265	(494)	A decrease in pension liabilities resulting from gains arising from financial assumption re-measurements and the effects of pension plan returns greater than the discount rate, as well as a decrease in the liability fair value of derivatives used to manage currency risk from U.S. dollar-denominated debt and European euro functional currency operations purchased with U.S. dollar-denominated long-term debt. See <i>Note 27</i> of the interim consolidated financial statements
Deferred income taxes	4,170	3,756	414	An overall increase in temporary differences between the accounting and tax basis of assets and liabilities, including employee benefit plan re-measurements recorded in Other comprehensive income.
Owners’ equity				
Common equity	15,014	12,040	2,974	See <i>Consolidated statements of changes in owners’ equity</i> in the interim consolidated financial statements
Non-controlling interests	924	528	396	See <i>Consolidated statements of changes in owners’ equity</i> in the interim consolidated financial statements.

7. Liquidity and capital resources

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

7.1 Overview

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

Cash flows

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Cash provided by operating activities	1,322	902	420	3,511	3,541	(30)
Cash used by investing activities	(1,464)	(1,176)	(288)	(3,477)	(3,958)	481
Cash provided (used) by financing activities	(177)	(76)	(101)	982	503	479
Increase (decrease) in Cash and temporary investments, net	(319)	(350)	31	1,016	86	930
Cash and temporary investments, net, beginning of period	2,183	971	1,212	848	535	313
Cash and temporary investments, net, end of period	1,864	621	1,243	1,864	621	1,243

7.2 Cash provided by operating activities
Analysis of changes in cash provided by operating activities

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
EBITDA ¹ (see Section 5.4 and Section 5.5)	1,496	1,390	106	4,408	4,158	250
Restructuring and other costs, net of disbursements	21	(5)	26	7	21	(14)
Employee defined benefit plans expense, net of employer contributions	20	15	5	48	40	8
Share-based compensation expense, net of payments	36	25	11	123	89	34
Interest paid, net of interest received	(180)	(191)	11	(549)	(561)	12
Income taxes paid, net of recoveries received	(62)	(198)	136	(415)	(335)	(80)
Other operating working capital changes	(9)	(134)	125	(111)	129	(240)
Cash provided by operating activities	1,322	902	420	3,511	3,541	(30)

¹ See description under EBITDA in Section 11.1 Non-GAAP and other financial measures.

Cash provided by operating activities increased by \$420 million in the third quarter of 2021 and decreased by \$30 million in the first nine months of 2021.

- Restructuring and other costs, net of disbursements, represented a net change of \$26 million in the third quarter of 2021 and \$14 million in the first nine months of 2021. We incurred lower restructuring and other costs disbursements net of expense, related to improving our overall cost structure and operational effectiveness.
- Interest paid, net of interest received, decreased by \$11 million in the third quarter of 2021 and \$12 million in the first nine months of 2021, largely due to the timing of our long-term debt coupon payments. Additionally, in the third quarter of 2021, we received interest resulting from the settlement of prior years’ income tax-related matters.
- Income taxes paid, net of recoveries received, decreased by \$136 million in the third quarter of 2021 as income tax instalment payments in the first six months of 2020 were deferred into the third quarter of 2020 as permitted by several government jurisdictions as part of their pandemic responses. Income taxes paid, net of recoveries received, increased by \$80 million in the first nine months of 2021, as income tax instalment payments were higher as a result of higher payments in foreign jurisdictions and larger instalments reflecting a higher estimated instalment basis for 2021 compared to 2020, partially offset by greater tax refunds received.
- For a discussion of Other operating working capital changes, see Section 6 Changes in financial position and Note 31(a) of the interim consolidated financial statements.

7.3 Cash used by investing activities
Analysis of changes in cash used by investing activities

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Cash payments for capital assets, excluding spectrum licences	(716)	(666)	(50)	(2,237)	(2,140)	(97)
Cash payments for spectrum licences and 3500 MHz spectrum licences deposits	(389)	—	(389)	(661)	—	(661)
Cash payments for acquisitions, net	(311)	(549)	238	(461)	(1,760)	1,299
Advances to, and investment in, real estate joint ventures and associates, net of real estate joint venture receipts	(11)	(7)	(4)	(26)	(92)	66
Proceeds on disposition	—	85	(85)	1	85	(84)
Investment in portfolio investments and other	(37)	(39)	2	(93)	(51)	(42)
Cash used by investing activities	(1,464)	(1,176)	(288)	(3,477)	(3,958)	481

Cash used by investing activities increased by \$288 million in the third quarter of 2021 and decreased by \$481 million in the first nine months of 2021.

- The increase in Cash payments for capital assets, excluding spectrum licences in both the third quarter of 2021 and first nine months of 2021, was composed of:
 - An increase in capital expenditures of \$250 million in the third quarter of 2021 and \$427 million in the first nine months of 2021 (see *Capital expenditure measures* table and discussion below)
 - Lower capital expenditure payments of \$200 million in the third quarter of 2021 and \$330 million in the first nine months of 2021 with respect to payment timing differences.
- Cash payments for spectrum licences and 3500 MHz spectrum licences deposits in the third quarter of 2021 and first nine months of 2021 are primarily related to deposits for the 3500 MHz spectrum auction as further described in *Section 1.3*. Additionally, in the first quarter of 2021, we acquired 3500 MHz spectrum licences in the urban cores of Edmonton, Guelph/Kitchener, London, Ottawa and Winnipeg, as well as in East Kootenay and Whistler. In the second quarter of 2021, we acquired a 2500 MHz licence in the urban core of Calgary.
- In the third quarter of 2021 and first nine months of 2021, we made cash payments for Blacksmith Applications Holdings Inc. as noted in *Section 1.3*, as well as other individually immaterial business acquisitions that are complementary to our existing lines of business. This is compared to business acquisition activity in the third quarter of 2020 that included Mobile Klinik and AFS Technologies Inc. and in the first nine months of 2020 that included Competence Call Center (CCC), in addition to other individually immaterial business acquisitions complementary to our existing lines of business.
- Advances to, and investment in, real estate joint ventures and associates, net of real estate joint venture receipts, represented a net change of \$4 million in the third quarter of 2021. In the first nine months of 2021, this represented a net change of \$66 million, predominantly related to our acquisition of a 28% basic equity interest in Miovision Technologies Incorporated in the first quarter of 2020.
- Proceeds on disposition decreased by \$85 million in the third quarter of 2021 and \$84 million in the first nine months of 2021 due to the sale of certain assets in the third quarter of 2020.
- Investment in portfolio investments and other was relatively unchanged in the third quarter of 2021 compared to the third quarter of 2020. Investment in portfolio investments and other increased by \$42 million in the first nine months of 2021 related to an increase of capital inventory.

Capital expenditure measures

(\$ millions, except capital expenditure intensity)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Capital expenditures¹						
TELUS technology solutions (TTech) segment	962	714	34.7%	2,506	2,087	20.1%
Digitally-led customer experiences – TELUS International (DLCX) segment	29	27	7.4%	83	75	10.7%
Consolidated	991	741	33.7%	2,589	2,162	19.8%
TTech segment capital expenditure intensity (%)	26	20	6 pts.	23	21	2 pts.
DLCX segment capital expenditure intensity (%)	4	5	(1) pt.	4	4	— pts.
Consolidated capital expenditure intensity ² (%)	23	19	4 pts.	21	19	2 pts.

1 Capital expenditures include assets purchased, excluding right-of-use lease assets, but not yet paid for, and therefore differ from Cash payments for capital assets, excluding spectrum licences, as reported in the Consolidated statements of cash flows. Refer to *Note 31* of the interim consolidated financial statements for further information.

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

Consolidated capital expenditures increased by \$250 million in the third quarter of 2021 and \$427 million in the first nine months of 2021. TTech drove \$248 million of the increase in the third quarter of 2021 and \$419 million in the first nine months of 2021, due to accelerated investments in our 5G network, our broadband build and digitization to increase system capacity and reliability, in addition to the advanced purchase of equipment to mitigate supply chain risks and support subscriber growth. This was partly offset by a reduction in spend from efficiencies in our 4G network spend. With our investments, we are advancing the mobile speeds and coverage of our expanding 5G network, continuing to connect additional homes and businesses directly to our fibre-optic technology, evolving our TV ecosystem, and supporting system reliability and operational efficiency and effectiveness efforts. These investments also support our internet, TV and security subscriber growth, address our customers’ demand for faster internet speeds, and extend the reach and

functionality of our business, as well as our healthcare and agriculture solutions. By September 30, 2021, our 5G network covered 24.1 million Canadians, representing 64% of the population.

On May 7, 2021, we announced that we intended to accelerate up to \$750 million of capital spending in 2021. During the first nine months of 2021, \$442 million of accelerated capital has been invested, to advance our fibre build and 5G coverage. This spend has enabled: (i) additional premises to be connected to our fibre network; (ii) acceleration of our copper to fibre migration program; (iii) expansion of the number of communities we are bringing fibre to, including many rural and Indigenous communities; (iv) advancement of our 5G network build which now covers 64% of the Canadian population at September 30, 2021; and (v) progress in the implementation of our digital strategy that will bolster both top line revenue growth and operating expense efficiency.

7.4 Cash provided (used) by financing activities

Analysis of changes in cash provided (used) by financing activities

(\$ millions)	Third quarters ended September 30			Nine-month periods ended September 30		
	2021	2020	Change	2021	2020	Change
Common Shares issued	—	—	—	1,300	1,495	(195)
Dividends paid to holders of Common Shares	(271)	(232)	(39)	(773)	(694)	(79)
Issue (repayment) of short-term borrowings, net	2	7	(5)	2	7	(5)
Long-term debt issued, net of redemptions and repayment (redemption and repayments, net of issuances)	92	149	(57)	(315)	(441)	126
Shares of subsidiary issued and sold to non-controlling interests, net	—	—	—	827	209	618
Other	—	—	—	(59)	(73)	14
Cash provided (used) by financing activities	(177)	(76)	(101)	982	503	479

Cash used by financing activities increased by \$101 million in the third quarter of 2021 and cash provided by financing activities increased by \$479 million in the first nine months of 2021.

Common Shares issued

Common Shares issued reflect 51 million Common Shares at a price of \$25.35 per Common Share issued in the first quarter of 2021. This is compared to 58 million Common Shares at a price of \$26.00 issued in the first quarter of 2020.

Dividends paid to holders of Common Shares

Our dividend reinvestment and share purchase (DRISP) plan trustee acquired shares from Treasury for the DRISP plan, rather than acquiring Common Shares in the stock market. Effective with the dividends paid on October 1, 2019, we offered Common Shares from Treasury at a discount of 2%. Cash payments for dividends increased by \$39 million in the third quarter of 2021 and \$79 million in the first nine months of 2021, which reflected higher dividend rates under our dividend growth program (see *Section 4.3*) and an increase in the number of shares outstanding. This was partly offset by a higher discounted DRISP issuance. During the third quarter of 2021, our DRISP plan trustee acquired Common Shares for \$157 million.

In October 2021, we paid dividends of \$272 million to the holders of Common Shares and the trustee acquired dividend reinvestment Common Shares from Treasury for \$158 million, totalling \$430 million.

Long-term debt issues, redemptions and repayment

In the third quarter of 2021, long-term debt issues, net of redemptions and repayment, were \$92 million, a change of \$57 million compared to \$149 million in the third quarter of 2020. This change was primarily composed of:

- A net increase in commercial paper outstanding, including foreign exchange effects, of \$1,331 million to a balance of \$1,528 million (US\$1,199 million) at September 30, 2021, from a balance of \$197 million (US\$159 million) at June 30, 2021. Our commercial paper program, when utilized, provides low-cost funds and is fully backstopped by the revolving credit facility (see *Section 7.6 Credit facilities*).
- A decrease in net draws on the TI credit facility of \$17 million (US\$14 million) was more than offset by foreign exchange effects of \$28 million. As at September 30, 2021, net draws due to a syndicate of financial institutions (excluding TELUS Corporation) were US\$877 million, whereas as at June 30, 2021, net draws were US\$891 million. The TI credit facility is non-recourse to TELUS Corporation.
- The early full redemption of \$1 billion 2.35% Notes, Series CT, due March 28, 2022. The long-term debt prepayment premium recorded in the three-month period ended September 30, 2021 was approximately \$10 million before income taxes.

For the first nine months of 2021, long-term debt redemptions and repayment, net of issues, were \$315 million, a change of \$126 million compared to \$441 million in the first nine months of 2020. In addition to some activity from the third quarter of 2021, the change in balance for the first nine months of 2021 was primarily composed of:

- A net increase in commercial paper outstanding, including foreign exchange effects, of \$797 million from a balance of \$731 million (US\$574 million) at December 31, 2020.
- A decrease in net draws on the TI credit facility, including foreign exchange effects, of \$697 million. As at December 31, 2020, net draws due to a syndicate of financial institutions (excluding TELUS Corporation) were US\$1,428 million. The reduction in TI credit facility indebtedness was facilitated by the net proceeds of the TI initial public offering (IPO) (see *Note 28* of the interim consolidated financial statements).
- The April 5, 2021 issue of \$500 million of senior unsecured 4.10% Notes, Series CAE, due April 5, 2051. The net proceeds from this offering were used to fund the repayment upon maturity of the Series 3, 10.65% debentures of TELUS Communications Inc. due June 2021, the repayment of commercial paper and for general corporate purposes.
- The June 28, 2021 issue of \$750 million of our inaugural senior unsecured 2.85% Sustainability-Linked Notes, Series CAF, due November 13, 2031. The net proceeds were used for the repayment of outstanding indebtedness, including the repayment of commercial paper and for other general corporate purposes.
- The repayment upon maturity of Series 3, 10.65% debentures of TELUS Communications Inc. (TCI) due June 2021.

The average term to maturity of our long-term debt (excluding commercial paper, the revolving component of the TI credit facility, lease liabilities and other long-term debt) was 12.7 years at September 30, 2021, an increase from 12.2 years at December 31, 2020, and unchanged from September 30, 2020. Additionally, the weighted average cost of our long-term debt (excluding commercial paper, the revolving component of the TI credit facility, lease liabilities and other long-term debt) was 3.72% at September 30, 2021, a decrease from 3.80% at December 31, 2020 and from 3.85% at September 30, 2020.

Shares of subsidiary issued and sold to non-controlling interests, net

In connection with the TI IPO described in our first quarter 2021 MD&A, we received net cash proceeds of \$827 million in the first quarter of 2021 (see *Note 28* of the interim consolidated financial statements). In the first quarter of 2020, TI issued shares to non-controlling interests related to its acquisition of CCC.

Other

In the second quarter of 2021, we incurred debt issuance costs in connection with the issuance of 4.10% Notes, Series CAE notes and 2.85% Sustainability-Linked Notes, Series CAF. In connection with our 51 million Common Shares issued in the first quarter of 2021, we incurred certain equity issuance costs. In the first quarter of 2020, we also incurred certain equity issuance costs in connection with our issue of 58 million Common Shares.

7.5 Liquidity and capital resource measures

Net debt was \$19.0 billion at September 30, 2021, an increase of \$520 million compared to one year earlier, resulting mainly from an increase in commercial paper outstanding, the October 2020 issuance of \$500 million of Series CAD notes, and the second quarter 2021 issuances of \$500 million of Series CAE notes and \$750 million of Series CAF Sustainability-Linked Notes as described in *Section 7.4*. These factors were partially offset by higher Cash and temporary investments, the early redemption of Series CT notes described in *Section 7.4*, and the repayment upon maturity of Series 3, 10.65% debentures of TCI.

Fixed-rate debt as a proportion of total indebtedness, which excludes lease liabilities and other long-term debt, was 89% as at September 30, 2021, down from 94% one year earlier. This was mainly due to an increase in commercial paper outstanding, which is classified as floating-rate debt in this calculation, and the early redemption of Series CT notes. The decline in fixed-rate debt as a proportion of total indebtedness was partly offset by the October 2020 issuance of \$500 million of Series CAD notes and the second quarter 2021 issuances of \$500 million of Series CAE notes and \$750 million of Series CAF Sustainability-Linked Notes.

Net debt to EBITDA – excluding restructuring and other costs ratio was 3.19 times, as measured at September 30, 2021, down from 3.21 times one year earlier. Our long-term objective for this measure is within a range of 2.20 to 2.70 times, which we believe is consistent with maintaining investment grade credit ratings in the range of BBB+, or the equivalent, and providing reasonable access to capital. As at September 30, 2021, this ratio remains outside of the long-term objective range resulting from prior issuances of incremental debt, primarily due to business acquisitions and the acquisition of spectrum licences, partially offset by growth in EBITDA – excluding restructuring and other costs. EBITDA growth was reduced by impacts from the COVID-19 pandemic. As at September 30, 2021, business acquisitions over the past 12 months increased the ratio by approximately 0.29 and the

acquisition of spectrum licences increased the ratio by approximately 0.27. Our recent acquisitions of spectrum licences have increased 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 mobile subscriber base. Given the cash demands of the 2019 600 MHz, the recent 2021 3500 MHz and upcoming spectrum auctions, as well as the inability to predict impacts of the COVID-19 pandemic, the assessment of the guideline and return to the objective range remains to be determined; however, it is our intent to return to a ratio below 2.70 times in the medium term (following the recent 2021, and upcoming, 2023 and 2024 spectrum auctions), consistent with our long-term strategy. While this ratio exceeds our long-term objective range, we are well in compliance with the leverage ratio covenant in our credit facilities, which states that we may not permit our leverage ratio to exceed 4.25 to 1.00 at September 30, 2021 (see *Section 7.6 Credit facilities*).

Liquidity and capital resource measures

As at, or for the 12-month periods ended, September 30	2021	2020	Change
Components of debt and coverage ratios¹ (\$ millions)			
Net debt	19,009	18,489	520
EBITDA – excluding restructuring and other costs	5,957	5,754	203
Net interest cost	780	782	(2)
Debt ratios			
Fixed-rate debt as a proportion of total indebtedness (excluding lease liabilities and other long-term debt) (%)	89	94	(5) pts.
Average term to maturity of long-term debt (excluding commercial paper, the revolving component of the TI credit facility, lease liabilities and other long-term debt) (years)	12.7	12.7	—
Weighted average interest rate on long-term debt (excluding commercial paper, the revolving component of the TI credit facility, lease liabilities and other long-term debt) (%)	3.72	3.85	(0.13) pts.
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)	3.19	3.21	(0.02)
Coverage ratios¹ (times)			
Earnings coverage	3.3	3.4	(0.1)
EBITDA – excluding restructuring and other costs interest coverage	7.6	7.4	0.2
Other measures¹ (%)			
Determined using management measures			
Common Share dividend payout ratio – net of dividend reinvestment plan effects	110	69	41 pts.
Determined using most comparable IFRS-IASB measures			
Ratio of Common Share dividends declared to cash provided by operating activities less capital expenditures (excluding spectrum licences)	124	100	24 pts.
1 See <i>Section 11.1 Non-GAAP and other financial measures</i> .			

Earnings coverage ratio for the 12-month period ended September 30, 2021 was 3.3 times, down from 3.4 times one year earlier. A decrease in income before borrowing costs and income taxes reduced the ratio by 0.1, as EBITDA growth was reduced by pandemic impacts.

EBITDA – excluding restructuring and other costs interest coverage ratio for the 12-month period ended September 30, 2021 was 7.6 times, up from 7.4 times one year earlier. Growth in EBITDA – excluding restructuring and other costs increased the ratio by 0.2 and net interest costs were essentially unchanged from one year ago.

Common Share dividend payout ratios: Actual Common Share dividend payout decisions will continue to be subject to our Board’s assessment of our financial position and outlook, as well as our long-term Common Share dividend payout objective range of 60% to 75% of prospective free cash flow. So as to be consistent with the way we manage our business, our Common Share dividend payout ratio is presented as a historical measure calculated as the sum of the most recent four quarters’ dividends declared for Common Shares, as recorded in the financial statements, net of dividend reinvestment plan effects, divided by the sum of the most recent four quarters’ free cash flow amounts for interim reporting periods. For fiscal years, the denominator is annual free cash flow (free cash flow is a non-GAAP measure, see *Section 11.1*). The historical measure for the 12-month period ended September 30, 2021 is presented for illustrative purposes in evaluating our target guideline. As at September 30, 2021, the ratio was outside of the objective range, primarily due to: (i) the reduction of EBITDA caused by the pandemic; and (ii) our planned accelerated capital expenditures program to support our broadband capital investments, the build-out of our TELUS PureFibre infrastructure and the acceleration of our 5G network roll-out. Excluding the effects of our accelerated capital expenditures program, as at September 30, 2021, the ratio was 75%.

TELUS International intends to retain all available funds and any future earnings to support operations and to finance the growth and development of its business. As such, TELUS International does not intend to declare or pay cash dividends on its equity shares in the foreseeable future.

7.6 Credit facilities

At September 30, 2021, we had over \$1.2 billion of liquidity available from the TELUS revolving credit facility and \$819 million of liquidity available from the TI credit facility with a syndicate of financial institutions (excluding TELUS Corporation). In addition, we had \$500 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 \$2.75 billion (or U.S. dollar equivalent) unsecured revolving credit facility with a syndicate of financial institutions, expiring April 6, 2026. The revolving credit facility is used for general corporate purposes, including the backstop of commercial paper, as required.

TELUS revolving credit facility at September 30, 2021

(\$ millions)	Expiry	Size	Drawn	Outstanding undrawn letters of credit	Backstop for commercial paper program	Available liquidity
Revolving credit facility ¹	April 6, 2026	2,750	—	—	(1,528)	1,222
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 4.25 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. As at September 30, 2021, our consolidated leverage ratio was 3.19 to 1.00 and our consolidated coverage ratio was 7.64 to 1.00. These ratios are expected to remain well within 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 at any one time of \$1.9 billion equivalent (US\$1.5 billion maximum) as at September 30, 2021. Foreign currency forward contracts are used to manage currency risk arising from issuing commercial paper denominated in U.S. dollars. The commercial paper program is to be used for general corporate purposes, including, but not limited to, capital expenditures and investments. Our ability to reasonably access the commercial paper market in the U.S. is dependent on our credit ratings (see *Section 7.8 Credit ratings*).

TELUS International credit facility

As at September 30, 2021, TELUS International (Cda) Inc. had a credit facility, secured by its assets, expiring on January 28, 2025, with a syndicate of financial institutions and, joined in 2020, by TELUS Corporation. The TI credit facility is comprised of US\$620 million (TELUS Corporation as an approximately 7.5% lender) and US\$230 million (TELUS Corporation as a 12.5% lender) revolving components and amortizing US\$600 million (TELUS Corporation as 12.5% lender) and US\$250 million term loan components. The TI credit facility is non-recourse to TELUS Corporation. The outstanding revolving components and term loan components had a weighted average interest rate of 1.79% as at September 30, 2021.

The term loan components are 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 and December 22, 2022, for the US\$250 million component, respectively.

Other letter of credit facilities

At September 30, 2021, we had \$191 million of letters of credit outstanding 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 \$120 million at September 30, 2021. Further, we had arranged \$359 million of incremental letters of credit to allow us to participate in Innovation, Science and Economic Development Canada’s 3500 MHz band spectrum auction that was held in June-July 2021, as further described in *Note 18(a)* of the interim consolidated financial statements; such letters of credit will remain outstanding until such time as our final payment for awarded spectrum licences is made.

Other long-term debt

Other liabilities bear interest at 3.19%, are secured by the associated AWS-4 spectrum licences and a real estate holding, and are subject to amortization schedules, which results in the principal being repaid over the periods to maturity, the last period ending March 31, 2035.

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 \$600 million. The agreement is in effect until December 31, 2024, and available liquidity was \$500 million as at September 30, 2021. (See *Note 22* of the interim consolidated financial statements.) Sales of trade receivables in securitization transactions are recognized as collateralized Short-term borrowings and thus do not result in our de-recognition of the trade receivables sold.

TELUS Communications Inc. is required to maintain a credit rating of at least a BB by DBRS Ltd. or the securitization trust may require the sale program to be wound down prior to the end of the term. The minimum credit rating was exceeded as of November 5, 2021.

7.8 Credit ratings

There were no changes to our investment grade credit ratings during the third quarter of 2021 or as of November 5, 2021. 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, continue to provide reasonable access to capital markets.

7.9 Financial instruments, commitments and contingent liabilities

Financial instruments

Our financial instruments, their accounting classification and the nature of certain risks that they may be subject to were described in *Section 7.9* of our 2020 annual MD&A.

Liquidity risk

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

As at September 30, 2021, TELUS Corporation could offer \$2.75 billion of debt or equity securities pursuant to a shelf prospectus that is in effect until June 2023.

As at September 30, 2021, we had over \$1.2 billion of available liquidity from the TELUS revolving credit facility and \$819 million of available liquidity from the T1 credit facility with a syndicate of financial institutions (excluding TELUS Corporation) (see *Section 7.6 Credit facilities*), as well as \$500 million available under our trade receivables securitization program (see *Section 7.7 Sale of trade receivables*). Excluding the T1 credit facility and including cash and temporary investments of approximately \$1.9 billion, we had total liquidity of approximately \$3.6 billion at September 30, 2021. This adheres to our objective of generally maintaining at least \$1 billion of available liquidity. We believe that our investment grade credit ratings contribute to reasonable access to capital markets.

Commitments and contingent liabilities

Purchase obligations

As at September 30, 2021, our contractual commitments related to the acquisition of Property, plant and equipment were \$554 million through to December 31, 2023, as compared to \$235 million over a period ending December 31, 2022 reported as at December 31, 2020. The increase was primarily attributed to our planned accelerated capital investments including the accelerated broadband build across fibre and 5G.

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, 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 and, in some cases, other wireless carriers and telecommunications service providers.

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 disclosed in *Note 29* of the interim consolidated financial statements.

7.10 Outstanding share information

Outstanding shares (millions)	September 30, 2021	October 31, 2021
Common Shares	1,361	1,367
Common Share options	3	3
Restricted share units – equity-settled	12	12

7.11 Transactions between related parties

Transactions with key management personnel

Our key management personnel have authority and responsibility for overseeing, planning, directing and controlling our activities and consist of our Board of Directors and our Executive Team. Total compensation expense for key management personnel was \$28 million and \$78 million in the third quarter of 2021 and first nine months of 2021, respectively, compared to \$18 million and \$43 million in the comparable periods in 2020. The increase in compensation expense for key management personnel was primarily due to greater share-based compensation, which was largely related to liability-accounted awards that increased in value in the first quarter of 2021 and decreased in value in the comparative 2020 period and pension plan past service costs recorded in 2021. See *Note 30(a)* of the interim consolidated financial statements for additional details.

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 venture and associates

In the third quarter of 2021, we had transactions with the TELUS Sky real estate joint venture, which is a related party to us, as set out in *Note 21* of the interim consolidated financial statements. The new-build tower was completed in 2020.

For the TELUS Sky real estate joint venture, commitments and contingent liabilities include construction financing (\$342 million, with Canadian financial institutions as 66-2/3% lender and TELUS as 33-1/3% lender) under a credit agreement maturing August 31, 2023. We have entered into lease agreements with the TELUS Sky real estate joint venture; for lease accounting purposes, the first lease commenced during the three-month period ended June 30, 2019.

8. Accounting matters

8.1 Critical accounting estimates and judgments

Our significant accounting policies are described in *Note 1* of the Consolidated financial statements for the year ended December 31, 2020. The preparation of financial statements in conformity with generally accepted accounting principles (GAAP) 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 and classification of income and expense during the reporting period. Actual results could differ from those estimates. Our critical accounting estimates and significant judgments are generally discussed with the Audit Committee each quarter and are described in *Section 8.1* of our 2020 annual MD&A, which is hereby incorporated by reference.

8.2 Accounting policy developments

Our accounting policy developments were discussed in *Section 8.2 Accounting policy developments* of our 2020 annual MD&A. See *Note 2* of the interim consolidated financial statements for additional details.

9. Update to general trends, outlook and assumptions, and regulatory developments and proceedings

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

The assumptions for our 2021 outlook, as described in *Section 9* of our 2020 annual MD&A, remain the same, except for the following:

- Our revised estimates for 2021 economic growth in Canada, B.C., Alberta, Ontario and Quebec are 5.4%, 5.6%, 6.0%, 5.1% and 6.1%, respectively (compared to 4.5%, 4.5%, 4.4%, 4.8% and 4.6%, respectively, as reported in our 2020 annual MD&A).
- Our revised estimates for 2021 annual unemployment rates in Canada, B.C., Alberta and Quebec are 7.6%, 6.6%, 8.7% and 6.3%, respectively (compared to 7.8%, 6.9%, 9.9% and 6.9%, respectively, as reported in our 2020 annual MD&A).
- Our revised estimates for 2021 annual rates of housing starts on an unadjusted basis in Canada, B.C., Alberta, Ontario and Quebec are 270,000 units, 47,000 units, 32,000 units, 96,000 units and 72,000 units, respectively (compared to 202,000 units, 35,000 units, 24,000 units, 77,000 units and 48,000 units, respectively, as reported in our 2020 annual MD&A).
- Our cash income tax payments assumption has been revised downward to a range of \$480 million to \$560 million, from an original assumption of a range between \$540 million to \$620 million, primarily due to a refund received upon conclusion of a prior year income tax audit.

The extent to which the economic growth estimates affect us and the timing of their impact will depend upon the actual experience of specific sectors of the Canadian economy.

9.1 Communications 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), Canadian Heritage and the Competition Bureau.

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 or description of all of the specific issues described. Although we have indicated those issues for which 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 10.3* of our 2020 annual MD&A.

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 that may attach 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.

3500 MHz spectrum auction to support 5G

On July 29, 2021, ISED released the provisional results of its auction of spectrum in the 3500 MHz band. We acquired 142 licences equating to 16.4 MHz of spectrum at a price of approximately \$1.95 billion. Combined with the spectrum we acquired privately in advance of the auction, we now hold an average of 25 MHz of spectrum in the 3500 MHz band nationally. The auction framework included a 50 MHz set-aside in all markets where 50 MHz or more spectrum was available. This was on top of the competitive imbalance that was already introduced by ISED’s 2019 transition decision for the band. That decision left nearly 90 MHz of the 200 MHz band in the hands of band incumbents.

On August 26, 2021, we brought an application in Federal Court for judicial review of the decision of the Minister of Innovation, Science and Industry’s decision to permit Vidéotron to bid on set-aside blocks of spectrum in B.C., Alberta and Manitoba in the 3500 MHz auction. In the application, we argue that Videotron did not meet the eligibility test set out by ISED in the auction framework, and thus should not have been permitted to bid on the set-aside spectrum that it eventually won. Bell has also brought a similar application. Additionally, on September 21, 2021, we brought a motion for an interim order enjoining the Minister from releasing the impugned spectrum to Vidéotron until our application for judicial review is decided. Our motion for an injunction was dismissed on October 22, 2021. We are considering options for appeal. Our application for judicial review is scheduled to be heard in February 2022.

We continue to review the results of the auction, including the amounts acquired by our competitors, to determine the impact of the auction on us.

Consultation on amendments to SRSP-520, Technical requirements for fixed and/or mobile systems, including flexible use broadband systems, in the band 3450-3650 MHz

In August 2021, ISED issued a consultation to examine technical specifications on the use of 3500 MHz spectrum. In the consultation, ISED identified a concern that 5G equipment operating on 3500 MHz band spectrum has the potential to cause interference with altimeters on aircraft. ISED proposed new restrictions on 3500 MHz band spectrum, including a ban on its use in large areas around major airports. Though the consultation closed in August 2021, on September 22, 2021, ISED announced that it was re-opening its consultation to give additional time for parties to comment. In addition, ISED made public technical studies that it relied upon to formulate its proposals. The consultation closed in October 2021. The impact of any new 3500 MHz technical requirements will be assessed when ISED renders a decision in this consultation. Given ISED’s continued concern about deploying 5G on 3500 MHz spectrum causing interference with altimeters on aircraft, ISED delayed issuing licences for 3500 MHz spectrum until after its decision on any amendments to SRSP-520. Further in this regard, on September 22, 2021, ISED notified prospective 3500 MHz licensees that their final auction payments and issuance of licences, scheduled for October 4, 2021, would be delayed. We await advisement from ISED as to when the 3500 MHz auction payments are due and when licence issuance will take place.

mmWave and 3800 MHz spectrum auctions to support 5G

On June 5, 2019, ISED released its *Decision on Releasing Millimetre Wave Spectrum to Support 5G*, repurposing several tranches of mmWave spectrum for mobile use. ISED will consult on a licensing framework (i.e., auction rules and conditions of licence) for these mmWave bands in the future. ISED formerly projected that the mmWave auction would commence in 2021, but has now revised its forecast to the first quarter of 2024. There is a risk that the auction rules may favour certain carriers over us and impact our ability to acquire an adequate quantity of mmWave spectrum.

The 3800 MHz spectrum band is seen as an extension to the 3500 MHz band. ISED released the first of two consultations on August 27, 2020. This first consultation featured proposals from ISED and from Telesat, the Canadian satellite spectrum licensee of 3700 to 4200 MHz spectrum, on how to repurpose existing spectrum. On May 21, 2021, ISED released its *Decision on the Technical and Policy Framework for the 3650-4200 MHz Band and Changes to the Frequency Allocation of the 3500-3650 MHz Band*, which will make 250 MHz of spectrum available for auction in the first quarter of 2023. ISED’s decision rejects Telesat’s proposal for private auction and early clearing of the band. The 3800 MHz spectrum will only be cleared and available by March 2025 in urban areas and March 2027 in many rural areas. Certain rural areas (territories and northern parts of B.C., Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Newfoundland and Labrador) are still deemed satellite-dependent areas and this spectrum will not be available for mobile use in these areas. Many important issues (such as auction format or competitive measures) are subject to the second consultation on an auction framework for the 3800 MHz band. There is a risk that the auction rules will favour certain carriers over us and impact our ability to acquire an adequate quantity of 3800 MHz band spectrum.

Regulatory and federal government reviews

The CRTC and the federal government have initiated public proceedings to review various matters. A number of key proceedings are discussed below.

Proposed acquisition of Shaw by Rogers

In March 2021, Rogers Communications Inc. and Shaw Communications Inc. announced their agreement for Rogers Communications Inc. to acquire Shaw Communications Inc. In addition to approval by shareholders of Shaw Communications Inc., the acquisition will require approvals by the Competition Bureau, the CRTC, and ISED. It is possible that the parties to the transaction will agree to merger remedies that could negatively affect us, or that the CRTC, ISED, or other governmental authorities could make (or decline to make) other regulatory changes, or impose behavioural remedies, that could materially affect us directly or affect the industry as a whole. It is also possible that this acquisition could trigger further consolidation in the industry. Until the governmental authorities complete their reviews and make a determination on whether to allow the acquisition and, if so, under what conditions, it is too early to determine the impact of these reviews on us.

Review of mobile wireless services

On April 15, 2021, the CRTC released its decision in the *Wireless Regulatory Framework Review*. The CRTC determined that Bell, Rogers, TELUS and SaskTel must provide wholesale mobile virtual network operator (MVNO) access to facilities-based regional wireless providers in areas where those providers hold a mobile wireless spectrum licence. MVNO access is based on commercially-negotiated rates and will be phased out after seven years. In addition, the CRTC has requested that Bell, Rogers, TELUS and SaskTel provide certain low-cost and occasional-use plans, which we have now implemented. We are working to implement the new MVNO and other requirements. The impact of this decision on us will be dependent on the commercial rates that are negotiated for MVNO access.

On May 4, 2021, Data on Tap Inc. brought a petition to the Governor in Council to vary the CRTC’s decision in the *Wireless Regulatory Framework* so as to mandate and set rates for full MVNO access. On September 22, 2021, we filed our response opposing this petition. The impact of this petition will not be known unless and until the Governor in Council issues a decision. The Governor in Council has until April 14, 2022, to do so.

We have also been granted leave to appeal two determinations from this decision to the Federal Court of Appeal: (i) the requirement for the national wireless carriers, including us, to offer seamless roaming as an additional condition under which the existing mandated wholesale roaming service must be offered; and (ii) the ruling that sections 43 and 44 of the *Telecommunications Act* do not provide the CRTC with jurisdiction to adjudicate disputes involving mobile wireless transmission facilities. If we are successful on appeal, we anticipate it will be easier for us to deploy our 5G infrastructure, in particular on municipal property.

Wireline wholesale services and interconnection follow-up

On July 22, 2015, the CRTC released *Review of wholesale wireline services and associated policies*, Telecom Regulatory Policy CRTC 2015-326 (TRP 2015-326). The major component of this decision was that the CRTC ordered the introduction of a disaggregated wholesale high-speed access (HSA) service for internet service provider (ISP) competitors. This includes access to fibre-to-the-premises (FTTP) facilities.

On June 11, 2020, the CRTC released *Call for comments – Appropriate network configuration for disaggregated wholesale high-speed access services*, Telecom Notice of Consultation CRTC 2020-187 (TNC 2020-187), where it is examining the appropriate network and service configurations for the disaggregated wholesale HSA service regime for all wholesale HSA service providers across the country. This new process takes the place of the previous follow-up proceedings. Until the CRTC issues its decision, it is too early to determine the impact of this proceeding on us.

Final rates for aggregated wholesale internet access services

On August 15, 2019, the CRTC released Telecom Order CRTC 2019-288, which finalized rates for the aggregated wholesale internet services of the ILEC and incumbent cable companies. The final rates were considerably lower than the interim rates, and the CRTC ordered the rates to apply retroactively to October 6, 2016. The financial impact of this decision was not material to us.

On September 13, 2019, Bell Canada and affiliated companies and a group of cable companies filed separate applications with the Federal Court of Appeal to seek leave to appeal Telecom Order CRTC 2019-288. Bell Canada and the cable companies also sought a stay of the order. On November 22, 2019, the Federal Court of Appeal allowed both leave applications and granted a stay pending the disposition of the appeal. On September 10, 2020, the Federal Court of Appeal dismissed the appeals on their merits, thereby upholding the CRTC’s decision. On February 25, 2021, the Supreme Court of Canada dismissed applications for leave to appeal the Federal Court of Appeal decision brought by Bell Canada and the group of cable companies.

Separately, on November 13, 2019, we filed a petition to the Governor in Council seeking to refer back to Telecom Order CRTC 2019-288 for redetermination of the rates and seeking to vary Telecom Order CRTC 2019-288 on the basis that the rates and retroactive component of the order will threaten future investment. Bell Canada and a group of cable companies filed similar petitions on the same day. On August 15, 2020, the Governor in Council issued an Order in Council dismissing the petitions. However, the Order in Council, as well as an accompanying statement from the Minister of Innovation, Science and Industry, recognized that the rates set out in Telecom Order CRTC 2019-288 would, in some instances, undermine investment in high-quality networks.

On May 27, 2021, following separate applications requesting the CRTC to review and vary Telecom Order 2019-288 filed by each of TELUS, Bell Canada and a group of cable carriers, the CRTC issued Telecom Decision CRTC 2021-181. In this decision, the CRTC largely reversed Telecom Order 2019-288, meaning that we do not have to implement the rates ordered in Telecom Order CRTC 2019-288 or issue significant retroactive refunds to wholesale customers. Given that Telecom Decision 2021-181 essentially maintains the rates that have been in place since 2016, the decision does not have a material effect on us.

On May 28, 2021, TekSavvy Solutions Inc. brought a petition to the Governor in Council to vary the decision. On July 15, 2021, the Competitive Network Operators of Canada brought a similar petition. On August 25, 2021, National Capital Freenet Inc. also filed a petition to the Governor in Council. On June 28, 2021, TekSavvy Solutions Inc. sought leave to appeal Telecom Decision CRTC 2021-181 to the Federal Court of Appeal. We are not filing responding submissions in the petitions or the leave motion. We are still awaiting the decisions of the Governor in Council on these appeals.

5G security review – Public Safety Canada

In September 2018, the federal government announced a review of national cybersecurity requirements for Canada’s 5G networks. The stated objective of the reviews was to provide policy clarity on what security controls or restrictions the government intends to impose on 5G networks in Canada and to which foreign vendors such controls and restrictions

would apply. The timelines for the conclusion of this review were never released by the federal government, which has also not announced its intentions regarding 5G cybersecurity requirements. Following the September 20, 2021 federal election, on September 28, 2021, Prime Minister Justin Trudeau stated: “We will look forward to sharing a decision on many different issues, including telecommunications and Huawei, in the coming weeks,” indicating that the government is still weighing some decisions, but is nearing a final decision. Given the range of potential government or regulatory action that may result from this review, the impact on us, and on Canadian wireless service providers in general, cannot be reliably predicted.

International security developments

On May 16, 2019, an executive order entered into force permitting the U.S. Secretary of Commerce to block certain technology transactions deemed to constitute national security risks. The U.S. Department of Commerce subsequently established a list of entities, including Huawei Technologies Co., Ltd. and its global affiliates, to whom the export, re-export or transfer (in-country) of certain restricted technologies was prohibited unless specifically authorized under licence.

In a unanimous vote on July 13, 2021, the U.S. Federal Communications Commission authorized a US\$1.9 billion subsidy program to enable telecommunications companies with fewer than 10 million subscribers to replace Huawei and ZTE equipment.

The U.K. parliament continues to study a Telecoms Security Bill that would enact restrictions on the use of Huawei in the U.K., including a ban on the purchase of all new 5G infrastructure from Huawei, a mandate requiring operators to remove Huawei 5G networks deployed in the U.K. by 2027, and a prohibition on the installation of any Huawei equipment in U.K. 5G networks after September 30, 2021. The scope of this legislation, if passed, is not anticipated to have a direct material impact on us.

Given the range of potential government or regulatory actions by foreign governments with respect to Huawei, the impact on us, and on Canadian wireless service providers generally, cannot currently be predicted.

CRTC proceeding regarding potential barriers to the deployment of broadband-capable networks in underserved areas in Canada

On December 10, 2019, the CRTC issued *Call for comments regarding potential barriers to the deployment of broadband-capable networks in underserved areas in Canada*, Telecom Notice of Consultation CRTC 2019-406. In this proceeding, the CRTC sought comment on barriers that service providers and communities face in building new facilities, or interconnecting to or accessing existing facilities, and in extending networks into underserved areas in order to offer universal service objective-level services. The CRTC has specifically identified access to affordable transport services and efficient use of support structures as potential barriers. The record of the proceeding is now closed and we anticipate a decision later this year. It is too early to determine the impact of the proceeding on us.

CRTC proceeding regarding access to poles owned by Canadian carriers

On October 30, 2020, the CRTC issued *Call for comments regarding potential regulatory measures to make access to poles owned by Canadian carriers more efficient*, Telecom Notice of Consultation CRTC 2020-366. The CRTC commenced the proceeding further to comments in the proceeding initiated by Telecom Notice of Consultation CRTC 2019-406 that untimely and costly access to poles owned by Canadian carriers has negative impacts on broadband deployment, particularly in areas with limited or no access to broadband-capable networks. In the most recent proceeding, the CRTC is considering, among other issues, authorization delays, make-ready costs, spare capacity reservations, joint use agreements and the potential for improved dispute resolution. We are participating fully in the proceeding. It is too early to determine the impact of the proceeding on us.

Government mobile wireless pricing election commitment

Ahead of the 2019 federal election, the Liberal Party of Canada made a commitment to reduce wireless prices by 25%. On March 5, 2020, the Liberal government clarified its expectation that we, Bell, and Rogers (including flanker brands) lower mobile wireless prices for postpaid, bring-your-own-device plans in the 2 to 6 GB range by 25% by January 2022. The government reiterated this statement on June 5, 2020. To track progress, the government is reporting quarterly on wireless pricing. We are unable to determine the full impact of this commitment at this time. The announcement or implementation of specific regulations or other actions intended to reduce cell phone plan prices could precipitate a material reduction in operating expenditures and capital expenditures to ameliorate this impact.

CRTC review of rate setting for wholesale telecommunications services

On April 24, 2020, the CRTC issued *Call for comments – Review of the approach to rate setting for wholesale telecommunications services*, Telecom Notice of Consultation CRTC 2020-131. In this proceeding, the CRTC is seeking comment on whether to change its methodology of setting wholesale rates and, if so, how. The CRTC has stated its intent to use the proceeding to establish a more transparent and efficient rate-setting process. We are participating fully in all stages of the proceeding. It is too early to determine the impact of the proceeding on us.

CRTC review of deadlines for transition to next-generation 9-1-1 service

On June 14, 2021, the CRTC issued Telecom Decision CRTC 2021-199, *Establishment of new deadlines for Canada’s transition to next-generation 9-1-1 (NG9-1-1)*, where the CRTC stipulated revised implementation for NG9-1-1 service in Canada. The CRTC directed NG9-1-1 network providers, including us, to establish their NG9-1-1 networks, complete all NG9-1-1 production onboarding activities, and be ready to provide NG9-1-1 voice service by transiting live NG9-1-1 traffic, wherever public safety answering points have been established in a particular region, by March 1, 2022. We will work to comply with the directives from this decision. The impact of this proceeding is not expected to be material.

Amendments to Quebec’s public and private sector privacy law

On September 22, 2021, the Quebec National Assembly passed *An Act to modernize legislative provisions as regards the protection of personal information*, which received assent the same day. Extensive new requirements governing the collection, use and disclosure of the personal information of individuals in Quebec will be phased in over three years. The Act also creates a new enforcement regime with significant criminal fines and administrative monetary penalties for certain infractions and a private right of action with minimum statutory punitive damages. The full impact of the Act is not yet known because some key provisions, such as those relating to artificial intelligence (AI), have to be further elaborated through government regulations and interpretive guidance from the regulator. The materiality of the change cannot be fully assessed at this time.

Proposed subsidy increases for Northwestel

On November 2, 2020, the CRTC initiated a review of its regulatory framework for Northwestel Inc. and the state of telecommunications services in Canada’s North in Telecom Notice of Consultation CRTC 2020-367. On January 20, 2021, a number of interveners proposed large subsidy increases to Northwestel and other companies providing service in the North. The proceeding is ongoing. The impact of this proceeding is not expected to be material.

Broadcasting-related issues

Broadcasting licences held by TELUS

Our regional licences to operate broadcasting distribution undertakings in B.C. and Alberta were granted renewals in Broadcasting Decision CRTC 2018-267, which extends the licence terms to August 31, 2023. Our licence to operate a regional broadcasting distribution undertaking in areas of Quebec was renewed on June 28, 2019 in Broadcasting Decision CRTC 2019-230, extending the licence term to August 31, 2024. Our licence to operate a national video-on-demand service was renewed to August 31, 2023, as part of Broadcasting Decision CRTC 2018-20. We received CRTC authorization to launch a pay-per-view service on June 28, 2020, as part of Broadcasting Decision CRTC 2020-235.

Review of the Telecommunications Act, the Radiocommunication Act and the Broadcasting Act

On January 29, 2020, the Broadcasting and Telecommunications Legislative Review Panel released its final report entitled *Canada’s Communications Future: Time to Act*. The report contains 97 recommendations to update legislation governing broadcasting, telecommunications and radiocommunication for the Government of Canada to consider. Further to the report, on November 3, 2020, the government introduced legislation to amend the *Broadcasting Act*. Bill C-10 would have brought streaming services that operate over the internet expressly within the scope of the *Broadcasting Act*, and would have provided the CRTC with new and expanded regulatory powers to implement a modernized regulatory framework that addresses declining levels of support for Canadian content over the past several years, and would have provided a more sustainable source of support going forward. On June 21, 2021, Bill C-10 passed third reading at the House of Commons, but its debate in the Senate was cut short upon the proroguing of parliament and the calling of the federal election. On September 20, 2021, the Liberals were re-elected with a minority government, and may either attempt to reinstate Bill C-10 to the progress it had reached under the previous session, or alternatively, introduce a new bill to reform the *Broadcasting Act* and the entire legislative review process would start anew. It is too early to determine if proposed amendments, as well as any other potential legislative changes arising as a result of the report, will have a material impact on us.

Review of the Copyright Act and Copyright Board reforms

The *Copyright Act*’s statutorily mandated five-year review was due in 2017, and a process for conducting the review via parliamentary committee was announced in December 2017. The House of Commons Standing Committee on Industry, Science and Technology, with the assistance of the House of Commons Standing Committee on Canadian Heritage, completed the review early in 2019, and both committees presented reports to the House of Commons in May and June of 2019. To date, no legislation has been proposed as a result of the parliamentary review, although it has led to further government consultations to explore specific issues raised during the review, such as how to modernize the copyright framework for online intermediary liability, AI and the Internet of Things (IoT). The timeline for potential changes to the *Copyright Act* is uncertain, although government officials have signaled that copyright reform legislation may be tabled in late 2021 or early 2022. The policy approach for copyright has traditionally been based on a balance of interests of creators and consumers, and as a result, the impact of this proceeding is not expected to be material.

On April 14, 2021, ISED announced the launch of a consultation to modernize the copyright framework for online

intermediaries. The consultation builds on the work done in 2018 and 2019 as part of the parliamentary review of the Copyright Act. ISED has sought comments on a broad range of issues, including the role of intermediaries in policing online copyright infringement, how to remunerate rights holders for the use of their content on online platforms, and what types of enforcement tools (such as website-blocking orders) should be available against intermediaries. We participated in this consultation and filed joint comments with other ISPs on May 31, 2021. Among other things, the comments advocated for a continuation of existing government policy that provides ISPs with unconditional safe harbour protection for the potentially infringing activities of their customers. It is too early to tell whether this consultation will have a material impact on us.

On July 19, 2021, the government announced a consultation to modernize the copyright framework applicable to AI and IoT. The government’s objectives were to support innovation and investment in AI and other digital and emerging technologies, support Canada’s cultural industries and preserve the incentive to create and invest provided by the economic rights set out in the Act, and support competition and marketplace needs regarding IoT devices and other software-enabled products. We participated in this consultation and filed joint comments with other internet service providers (ISPs) on September 17, 2021. Among other things, the joint comments advocated that no changes should be made to the Copyright Act that would unduly burden or create potential liability risks for ISPs. Similar to the broader Copyright Act review, the impact of this proceeding is not expected to be material.

Legal challenge to the CRTC’s ability to regulate affiliation agreements

The CRTC’s ability to regulate affiliation agreements between broadcasting distributors and programming services was challenged by vertically integrated broadcasting entities before the Federal Court of Appeal. The Federal Court of Appeal heard the case on May 18, 2021, and released its decision on July 28, 2021. We were granted leave to intervene in the case and appeared at the hearing, where we defended the CRTC’s jurisdiction. The Federal Court of Appeal’s decision confirmed that the CRTC has jurisdiction to govern economic aspects of disputes between programming services and distributors, and generally supported our competitive position by reinforcing the validity of competitive safeguards put in place by the CRTC to protect non-vertically integrated companies in the broadcasting sector. On September 29, 2021, the vertically integrated companies filed an application for leave to appeal the Federal Court of Appeal’s decision to the Supreme Court of Canada. It is too early to determine the impact this application for leave to appeal might have on our broadcasting distribution activities.

Consultation on the government’s proposed approach to address harmful content online

On July 29, 2021, the government launched a consultation on its proposed approach to address harmful content online. The government’s proposals largely target social media and content platforms, but a few proposals would also have impacted ISPs. Accordingly, we participated in this consultation and filed joint comments with other ISPs on September 25, 2021. Among other things, the joint comments advocated that the legal framework for addressing harmful online content should not create undue obligations or liability for telecommunications carriers, and that requirements to block access to content online or to provide subscriber information should continue to require judicial orders. The impact of this proceeding is not expected to be material.

10. Risks and risk management

The principal risks and uncertainties that could affect our future business results and associated risk mitigation activities were described in our 2020 annual MD&A and have not materially changed since December 31, 2020. Reference is made as well to the summary of risks and uncertainties in the *Caution regarding forward-looking statements* at the beginning of this MD&A.

11. Definitions and reconciliations

11.1 Non-GAAP and other financial measures

We have issued guidance on and report certain non-GAAP measures that are used to evaluate the performance of TELUS, as well as to determine compliance with debt covenants and to manage our capital structure. As non-GAAP measures generally do not have a standardized meaning, they may not be comparable to similar measures presented by other issuers. For certain financial metrics, there are definitional differences between TELUS and TELUS International reporting. These differences largely arise from TELUS International adopting definitions consistent with practice in its industry. Securities regulations require such measures to be clearly defined, qualified and reconciled with their nearest GAAP measure. Certain of the metrics do not have generally accepted industry definitions.

On May 27, 2021, the Canadian Securities Administrators (CSA) issued National Instrument 52-112 *Non-GAAP and Other Financial Measures Disclosure* which will be effective for our MD&A for the year ended December 31, 2021. We are evaluating this instrument and expect that there will be resultant changes to certain metrics currently disclosed within Section 11.1 of the MD&A.

Adjusted Net income and adjusted basic earnings per share: These measures are used to evaluate performance at a consolidated level and exclude items that, in management’s view, may obscure underlying trends in business performance or items of an unusual nature that do not reflect our ongoing operations. These measures should not be considered alternatives to Net income and basic earnings per share in measuring TELUS’ performance. (See *Reconciliation of adjusted Net income* and *Reconciliation of adjusted basic EPS* in Section 1.3.)

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

TELUS Corporation Common Share (Common Share) dividend payout ratio: This is a historical measure calculated as the sum of the most recent four quarterly dividends declared, as recorded in the financial statements, net of dividend reinvestment plan effects, divided by the sum of free cash flow amounts for the most recent four quarters for interim reporting periods. For fiscal years, the denominator is annual free cash flow. Our objective range for the annual TELUS Corporation Common Share dividend payout ratio is on a prospective basis, rather than on a trailing basis. (See Section 7.5 *Liquidity and capital resource measures*.)

Calculation of Common Share dividend payout ratio, net of dividend reinvestment plan effects

Determined using management measures

12-month periods ended September 30 (\$ millions, except ratio)	2021	2020
Sum of the last four quarterly dividends declared	1,665	1,469
Sum of the last four quarterly amount of dividends declared reinvested in Common Shares	(620)	(539)
Numerator – Sum of the last four quarterly dividends declared, net of dividend reinvestment plan effects	1,045	930
Denominator – Free cash flow	952	1,352
Ratio (%)	110	69

Calculation of ratio of Common Share dividends declared to cash provided by operating activities less capital expenditures (excluding spectrum licences)

Determined using most comparable IFRS-IASB measures

12-month periods ended September 30 (\$ millions, except ratio)	2021	2020
Numerator – Sum of the last four quarterly dividends declared	1,665	1,469
Cash provided by operating activities	4,544	4,370
Less:		
Capital expenditures (excluding spectrum licences)	(3,202)	(2,904)
Denominator – Cash provided by operating activities less capital expenditures (excluding spectrum licences)	1,342	1,466
Ratio (%)	124	100

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

Calculation of Earnings coverage

12-month periods ended September 30 (\$ millions, except ratio)	2021	2020
Net income attributable to Common Shares	1,271	1,315
Income taxes (attributable to Common Shares)	439	480
Borrowing costs (attributable to Common Shares) ¹	746	744
Numerator	2,456	2,539
Denominator – Borrowing costs	746	744
Ratio (times)	3.3	3.4

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

EBITDA (earnings before interest, income taxes, depreciation and amortization): We have issued guidance on and report EBITDA because it is a key measure used to evaluate performance at a consolidated level. EBITDA is commonly reported and widely used by investors and lending institutions as an indicator of a company’s operating performance and ability to incur and service debt, and as a valuation metric. EBITDA should not be considered an alternative to Net income in measuring TELUS’ performance, nor should it be used as a measure of cash flow. EBITDA as calculated by TELUS is equivalent to Operating revenues and other income 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 also calculate **Adjusted EBITDA** to exclude items of an unusual nature that do not reflect our ongoing operations and should not, in our opinion, be considered in a long-term valuation metric or should not be included in an assessment of our ability to service or incur debt.

EBIT (earnings before interest and income taxes) is calculated for our operating segments because we believe that it is a meaningful indicator of our operating performance as it represents our earnings from operations before costs of capital structure and income taxes.

EBITDA reconciliation

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
Net income	358	321	1,035	989
Financing costs	194	187	604	581
Income taxes	140	109	383	365
Depreciation	530	540	1,581	1,568
Amortization of intangible assets	274	233	805	655
EBITDA	1,496	1,390	4,408	4,158
Add restructuring and other costs included in EBITDA	63	58	142	188
EBITDA – excluding restructuring and other costs	1,559	1,448	4,550	4,346
Add other equity losses related to real estate joint ventures	—	8	2	17
Deduct retirement of a provision arising from business acquisition-related written put options within DLCX	—	—	—	(71)
Adjusted EBITDA	1,559	1,456	4,552	4,292

Calculation of EBITDA margin

(\$ millions, except margin)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
Numerator – EBITDA	1,496	1,390	4,408	4,158
Denominator – Operating revenues and other income	4,251	3,981	12,386	11,403
EBITDA margin (%)	35.2	34.9	35.6	36.5

Calculation of Adjusted EBITDA margin

(\$ millions, except margin)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
Numerator – Adjusted EBITDA	1,559	1,456	4,552	4,292
Adjusted Operating revenues and other income:				
Operating revenues and other income	4,251	3,981	12,386	11,403
Other equity losses related to real estate joint ventures	—	8	2	17
Retirement of a provision arising from business acquisition-related written put options within DLCX	—	—	—	(71)
Denominator – Adjusted Operating revenues and other income	4,251	3,989	12,388	11,349
Adjusted EBITDA margin (%)	36.6	36.5	36.7	37.8

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, and there is no generally accepted industry definition of free cash flow. It should not be considered an alternative to the measures in the condensed interim consolidated statements of cash flows. Free cash flow excludes certain working capital changes (such as trade receivables and trade payables), proceeds from divested assets and other sources and uses of cash, as found in the condensed interim 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. We exclude impacts of accounting changes that do not impact cash, such as IFRS 15 and IFRS 16. Free cash flow may be supplemented from time to time by proceeds from divested assets or financing activities.

Free cash flow calculation

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
EBITDA	1,496	1,390	4,408	4,158
Deduct non-cash gains from the sale of property, plant and equipment	—	(1)	—	(3)
Restructuring and other costs, net of disbursements	21	(5)	7	21
Effects of contract asset, acquisition and fulfilment (IFRS 15 impact) and TELUS Easy Payment device financing	(13)	(59)	72	155
Effects of lease principal (IFRS 16 impact)	(124)	(90)	(371)	(255)
Leases formerly accounted for as finance leases (IFRS 16 impact)	—	16	—	70
Items from the condensed interim consolidated statements of cash flows:				
Share-based compensation, net	36	25	123	89
Net employee defined benefit plans expense	30	25	86	77
Employer contributions to employee defined benefit plans	(10)	(10)	(38)	(37)
Interest paid	(192)	(195)	(564)	(571)
Interest received	12	4	15	10
Capital expenditures (excluding spectrum licences) ¹	(991)	(741)	(2,589)	(2,162)
Free cash flow before income taxes	265	359	1,149	1,552
Income taxes paid, net of refunds	(62)	(198)	(415)	(335)
Free cash flow	203	161	734	1,217

1 Refer to Note 31 of the interim consolidated financial statements for further information.

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

Free cash flow reconciliation with Cash provided by operating activities

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
Free cash flow	203	161	734	1,217
Add:				
Capital expenditures (excluding spectrum licences)	991	741	2,589	2,162
Adjustments to reconcile to Cash provided by operating activities	128	—	188	162
Cash provided by operating activities	1,322	902	3,511	3,541

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.

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. (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. Expenses recorded for the long-term debt prepayment premium, if any, are included in net interest cost. Net interest cost was \$780 million in the 12-month period ended September 30, 2021, and \$782 million in the 12-month period ended September 30, 2020.

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 or post-acquisition business integration. In other costs, we include incremental atypical external costs incurred in connection with business acquisition or disposition activity; significant litigation costs in respect of losses or settlements; adverse retrospective regulatory decisions; and certain incremental atypical costs incurred in connection with the COVID-19 pandemic.

Components of restructuring and other costs

(\$ millions)	Third quarters ended September 30		Nine-month periods ended September 30	
	2021	2020	2021	2020
Goods and services purchased	39	38	84	148
Employee benefits expense	24	20	58	40
Restructuring and other costs included in EBITDA	63	58	142	188

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.

Mobile phone average billing per subscriber per month (ABPU) is calculated as network revenue derived from monthly service plan, roaming and usage charges, as well as monthly re-payments of the outstanding device balance owing from customers on contract; divided by the average number of mobile phone subscribers on the network during the period, and is expressed as a rate per month.

Mobile phone average revenue per subscriber per month (ARPU) is calculated as network revenue derived from monthly service plan, roaming and usage charges; divided by the average number of mobile phone subscribers on the network during the period, and is expressed as a rate per month.

Churn is calculated as the number of subscribers deactivated during a given period divided by the average number of subscribers on the network during the period, and is expressed as a rate per month. Mobile phone churn refers to the aggregate average of both prepaid and postpaid mobile phone churn. A TELUS, Koodo or Public Mobile brand prepaid mobile phone subscriber is deactivated when the subscriber has no usage for 90 days following expiry of the prepaid credits.

Connected device subscriber means a TELUS subscriber on an active service plan with a recurring revenue-generating portable unit (e.g. tablets, internet keys, Internet of Things, wearables and connected cars) that is connected to the TELUS network and is intended for limited or no cellular voice capability.

Mobile phone subscriber means a TELUS subscriber on an active service plan with a recurring revenue-generating portable unit (e.g. feature phones and smartphones) that is connected to the TELUS network and provides voice, text and/or data connectivity.

Internet subscriber means a TELUS subscriber on an active internet plan with a recurring revenue-generating fixed unit that is connected to the TELUS network and provides internet connectivity.

Residential voice subscriber means a TELUS subscriber on an active phone plan with a recurring revenue-generating fixed unit that is connected to the TELUS network and provides voice service.

Security subscriber means a TELUS subscriber on an active security plan with a recurring revenue-generating fixed unit that is connected to the TELUS security and automation platform.

TV subscriber means a TELUS subscriber on an active TV plan with a recurring revenue-generating fixed unit subscription for video services from a TELUS TV platform (e.g. Optik TV and Pik TV).

Virtual care member means primary enrolment to receive services on an active TELUS Health virtual care plan.

Healthcare lives covered means the number of users (primary members and their dependents) enrolled in various health programs supported by TELUS Health services (e.g. virtual care, health benefits management, preventative care and personal health security).

Digital health transactions mean the total number of health claims, dental claims, consultations or other paid transactions facilitated by TELUS Health services.