

TELUS CORPORATION
Management's discussion and analysis
2022 Q2

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 trends in the telecommunications industry including demand for mobile data and ongoing internet subscriber base growth, and our financing plans including 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 2022 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 changes 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 intended to further increase competition, for example, through mandated wholesale access; the potential for additional government intervention on pricing; federal and provincial consumer protection legislation; a new policy direction to the CRTC; the introduction into Parliament of new federal privacy legislation that could expand consumer privacy rights, create significant administrative monetary penalties and a privacy right of action and implement a new regulatory regime for the use of artificial intelligence in the private sector, with significant enforcement powers; 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 competitive safeguards such as the Standstill Rule and 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, the cost and availability of spectrum and timing of spectrum allocation, and ongoing and future consultations and decisions on spectrum licensing and policy frameworks, auctions and allocation; draft legislation permitting the government to restrict the use in telecommunications networks of equipment made by specified companies, including potentially Huawei and ZTE; draft legislation imposing new cybersecurity reporting requirements; the Minister of Innovation, Science and Industry’s request to telecommunications service providers, including TELUS, to improve network resiliency; 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 contracts entered into by TELUS International (Cda) Inc. (TELUS International or TI)), 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 revenue per subscriber per month (ARPU), cost of acquisition, cost of retention and churn rates 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 centre 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 & Consumer Goods business, 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 decline in 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 mobile 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 mobile 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 fixed 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, which 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 mobile technologies, including wireless small cells to improve coverage and capacity; investments in network technology required to comply with laws and regulations relating to the security of cyber systems, including bans on the products and services of certain vendors; 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 spectrum auctions held by Innovation, Science and Economic Development Canada (ISED), including 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 our 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 in a timely manner to successfully complete and integrate acquisitions into our operations and culture, complete divestitures or establish partnerships 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 the growth of our infrastructure and integrate new team members.
- 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 rising costs, 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 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; attracting and retaining qualified team members to support its operations; TI’s ability to grow and maintain profitability if changes in technology or if 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; 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, which could have a negative impact on its reputation and client confidence; TI’s business 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 suffering adverse emotional or cognitive effects in the course of performing their work; and TI’s short history operating as a separate, publicly traded company. TELUS International’s primary functional and reporting currency is the U.S. dollar and the contribution to our consolidated results of positive results in our digitally-led customer experiences – TELUS International (DLCX) segment may be offset by any strengthening of the Canadian dollar (our reporting currency) compared to the U.S. dollar, the European euro, the Philippine peso and other currencies where TI operates. 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; low trading volume; 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 or 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 2025 and any further dividend growth programs. 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 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 exercise 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 regarding 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 and factors affecting pension benefit obligations, funding and solvency discount rates; fluctuations in 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 United States; and global implications of the dynamics of trade relationships among major world economies.
- Energy use including: our ability to identify, procure 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 virtual power purchase agreements; our ability to continue to realize significant absolute reductions in energy use and the resulting greenhouse gas (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 2021 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 outside of 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)

August 5, 2022

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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 six-month periods ended June 30, 2022, and should be read together with our June 30, 2022 condensed interim consolidated statements of income and other comprehensive income, statements of financial position, statements of changes in owners’ equity and 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 and other specified 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, as required by National Instrument 52-112, *Non-GAAP and Other Financial Measures Disclosure*, 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 information filed with or furnished to 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 August 5, 2022.

In this MD&A, unless otherwise indicated, results for the second quarter of 2022 (three-month period ended June 30, 2022) and the six-month period ended June 30, 2022 are compared with results for the second quarter of 2021 (three-month period ended June 30, 2021) and the six-month period ended June 30, 2021.

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

The COVID-19 pandemic, which emerged in the first quarter of 2020, continued to have a global impact into 2022. 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 2023. Whether this occurs will depend on both domestic and international factors, such as rates of vaccination, including booster doses, as well as the potential proliferation of COVID-19 variants of concern.

We are committed to prioritizing the health and safety of team members and customers and the significant majority of team members have continued to work remotely during the pandemic. In April 2022, we reopened our Canadian administrative offices on a voluntary basis.

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 of the impact these estimates will have

on us and the timing of that 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		
	2022	2022	June 2022 ³	June 2021 ³	2022	June 2022	June 2021	2022
Canada	3.5 ⁴	3.9	4.9	7.8	5.4	274	282	240
B.C.	4.0 ⁵	4.1	4.6	6.6	4.8	56	68	40
Alberta	5.4 ⁵	5.1	4.9	9.3	6.4	39	30	32
Ontario	3.7 ⁵	3.8	5.1	8.4	5.8	95	89	87
Quebec	2.7 ⁵	3.1	4.3	6.3	4.4	54	70	59

- 1 Assumptions are as of April 14, 2022 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, June 2022 and June 2021, respectively.
- 4 Source: Bank of Canada Monetary Policy Report, July 2022.
- 5 Source: British Columbia Ministry of Finance, Budget and fiscal plan, 2022/23 – 2024/25, February 22, 2022; Alberta Ministry of Treasury Board and Finance, 2022 – 25 Fiscal Plan, February 24, 2022; Ontario Ministry of Finance, 2022 Ontario Budget: Ontario’s Plan to Build, April 28, 2022; and Ministère des Finances du Québec, Budget 2022 – 2023, March 2022, respectively.

TELUS technology solutions (TTech)

Across TTech, we are leveraging our leading technology and compassion to drive social change and enable remarkable human outcomes. Our long-standing commitment to putting our customers first across our range of solutions spanning mobile, data, IP, voice, television, entertainment, video and security over our award-winning networks has made us a distinct leader in customer service excellence and loyalty. The accolades we have earned over the years from independent, industry-leading network insight firms showcase the strength and speed of our leading networks, reinforcing our commitment to provide Canadians with access to superior technology that connects us to the people, resources and information that matter most. The Canadian healthcare industry continues toward digitization of everyday functions within the healthcare ecosystem. We are helping Canadians live healthier lives by leveraging technology that enables access to health information and deliver improved health outcomes. Additionally, we are creating innovative technology solutions to help feed the world, making data work for customers in the agriculture, food and consumer goods sectors. This efficient and effective collaboration helps ensure the quality and safety of food and consumer goods.

Digitally-led customer experiences – TELUS International (DLCX)

Technology is transforming the way businesses interact with their customers at an accelerating pace and scale and, across industries, customer experience has become a critically important competitive differentiator. DLCX clients and their customers have more information and choices than ever before and their expectations surrounding brand experiences and the speed at which companies must process and respond to customer interactions are changing rapidly. The proliferation of mobile devices, social media platforms and other methods of digital interaction has enabled customers to access information 24/7 and engage with companies through multiple digital channels. The COVID-19 pandemic has further accelerated the use of digital channels as the first, and sometimes only, points of customer interaction. Customers value a consistent and personalized experience across channels when interacting with the companies that serve them. Businesses face pressure to engage with their customers across digital and human channels, and seek to do so by combining technology with an authentic human experience that is capable of demonstrating a sincere commitment to customer satisfaction.

1.3 Consolidated highlights

Business acquisition

On June 8, 2022 we acquired the Canadian customers, assets and operations of Vivint Smart Home for \$101 million, a security business that is complementary to our existing lines of business. The investment was made with a view to leveraging our telecommunications infrastructure and expertise to continue to enhance connected home, business, security and health services for our customers.

LifeWorks Inc.

On June 16, 2022 we announced that we had entered into a definitive agreement with LifeWorks Inc. (LifeWorks) pursuant to which we will acquire all of the issued and outstanding common shares of LifeWorks for \$33.00 per LifeWorks common share, representing total offer consideration of approximately \$2.3 billion, and the assumption of net debt of approximately \$600 million, subject to the satisfaction of customary closing conditions. As of August 4, 2022, the LifeWorks shareholders had approved the transaction which was approved by 99.93% of votes. We have also received conditional approval from the Toronto Stock Exchange and clearance from the New York Stock Exchange for the listing of our Common Shares issuable to LifeWorks shareholders, subject to satisfaction of customary listing conditions. We continue to advance our efforts to obtain all of the requisite court and regulatory approvals. If such approvals are obtained and conditions are met, closing of the transaction is expected to occur in or about the fourth quarter of 2022. LifeWorks’ common shareholders will receive, at the election of each shareholder, either: (i) \$33.00 in cash; or (ii) 1.06420 Common Shares of TELUS for each LifeWorks common share held, subject in each case to pro-rata, such that the aggregate consideration paid to LifeWorks common shareholders will consist of 50% in cash and 50% in our Common Shares; or (iii) \$16.50 in cash and 0.53210 Common Shares of TELUS for each LifeWorks common share held.

This acquisition will significantly accelerate TELUS Health’s vision of employer-based healthcare, increasing access to high-quality, proactive healthcare and mental wellness for employees by unifying digital-first solutions across the care continuum. It will also enable us to combine the respective skills and capabilities of LifeWorks and TELUS Health to create an end-to-end, digital-first employee preventative and mental health and wellness platform covering more than 50 million lives. LifeWorks has long-standing employee and family assistance program (EFAP) market expertise, which includes its unmatched high-touch and in-person solution, as well as its 15-year investment in and focus on, its leading digital capabilities and platform, and extensive administrative, retirement and financial solutions, a natural complement to TELUS Health. By further advancing TELUS Health’s vision of providing employer-based healthcare, and easy access to high calibre EFAP and mental health services, as well as benefits administration and retirement planning, we are elevating our commitment to the evolving health and well-being needs of employees and their families. We anticipate being able to drive significant cross-selling opportunities between both organizations, including TELUS International’s proven expertise in digital transformation and client service excellence, to extend our offerings to customers beyond Canada.

Our Board of Directors

At our 2022 annual general meeting held on May 6, 2022, the nominees listed in the TELUS 2022 information circular were elected as directors of TELUS, including a new nominee, Victor Dodig.

Victor has been the President and Chief Executive Officer of the CIBC group of companies since September 2014. He brings more than 25 years of extensive business and banking experience, including leading CIBC’s Wealth Management, Asset Management and Retail Banking businesses. Over his career, Victor also led several businesses with UBS and Merrill Lynch in Canada and internationally, and was a management consultant with McKinsey & Company. He serves on the board of the C.D. Howe Institute and the Business Council of Canada. Victor is a vocal advocate for inclusion in the workplace and is chair of the Inclusion and Diversity Leadership Council at CIBC and a co-chair of the BlackNorth Initiative. He is past chair of the Catalyst Canada Advisory Board and past chair of the 30% Club Canada. In 2017, Victor was recognized as a Catalyst Canada Honours Champion for his leadership in advancing gender diversity.

Consolidated highlights

(\$ millions, except footnotes and unless noted otherwise)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Consolidated statements of income						
Operating revenues and other income	4,401	4,111	7.1%	8,683	8,135	6.7%
Operating income	762	658	15.8%	1,489	1,330	12.0%
Income before income taxes	665	455	46.2%	1,213	920	31.8%
Net income	498	344	44.8%	902	677	33.2%
Net income attributable to Common Shares	468	335	39.7%	853	666	28.1%
Adjusted Net income ¹	422	348	21.3%	836	707	18.2%
Earnings per share (EPS) (\$)						
Basic EPS	0.34	0.25	36.0%	0.62	0.50	24.0%
Adjusted basic EPS ¹	0.32	0.26	23.1%	0.61	0.53	15.1%
Diluted EPS	0.34	0.25	36.0%	0.62	0.50	24.0%
Dividends declared per Common Share (\$)	0.3386	0.3162	7.1%	0.6660	0.6274	6.2%
Basic weighted-average Common Shares outstanding (millions)	1,381	1,355	1.9%	1,378	1,327	3.8%
Consolidated statements of cash flows						
Cash provided by operating activities	1,250	1,244	0.5%	2,385	2,183	9.3%
Cash used by investing activities	(1,438)	(860)	67.2%	(2,637)	(2,013)	31.0%
Acquisitions	(142)	(13)	n/m	(269)	(150)	79.3%
Capital expenditures ²	(1,054)	(913)	15.4%	(1,887)	(1,598)	18.1%
Cash provided (used) by financing activities	(204)	(104)	96.2%	(89)	1,165	n/m
Other highlights						
Telecom subscriber connections ³ (thousands)				17,323	16,295	6.3%
Earnings before interest, income taxes, depreciation and amortization ¹ (EBITDA)	1,593	1,451	9.8%	3,162	2,912	8.6%
EBITDA margin ¹ (%)	36.2	35.3	0.9 pts.	36.4	35.8	0.6 pts.
Restructuring and other costs	29	38	(23.7)%	68	79	(13.9)%
Adjusted EBITDA ¹	1,622	1,490	8.9%	3,230	2,993	7.9%
Adjusted EBITDA margin ¹ (%)	36.9	36.2	0.7 pts.	37.2	36.8	0.4 pts.
Free cash flow ¹	205	210	(2.4)%	620	531	16.8%
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)				3.23	3.11	0.12

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

1 These are non-GAAP and other specified financial measures. See *Section 11.1 Non-GAAP and other specified 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, 2022 on a prospective basis, following an in-depth review of our definition of a subscriber, we adjusted our connected devices subscriber base to remove 34,000 subscribers within a legacy reporting system. During the second quarter of 2022, we adjusted our cumulative security subscriber connections to add approximately 75,000 subscribers as a result of a business acquisition.

Operating highlights

- **Consolidated Operating revenues and other income** increased by \$290 million in the second quarter of 2022 and \$548 million in the first six months of 2022.

Service revenues increased by \$298 million in the second quarter of 2022 and \$561 million in the first six months of 2022. TTEch service revenue growth of \$176 million in the second quarter of 2022 and \$330 million in the first six months of 2022 was driven by higher mobile network revenues, increased internet and data service revenues, growth in agriculture and consumer goods service revenues, and growth in health services revenues. Increased DLCX revenues resulted from organic growth from both expanded services for existing clients and growth from new clients.

Equipment revenues decreased by \$34 million in the second quarter of 2022 and \$63 million in the first six months of 2022, largely reflecting lower mobile handset contract volumes and a greater mix of bring-your-own-device customer additions, partly offset by higher-value smartphones in the sales mix.

Other income increased by \$26 million in the second quarter of 2022 and \$50 million in the first six months of 2022, largely resulting from decreases in provisions arising from business acquisition-related written put options, the reversal of provisions for contingent consideration related to business acquisitions, and higher gains on investments.

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 \$104 million in the second quarter of 2022 and \$159 million in the first six months of 2022. The increases were driven by growth in mobile network revenue; increased contribution from DLCX; and growth in internet and data service revenues. This was partly offset by higher employee benefits expense; higher costs related to scaling our digital capabilities; lower legacy fixed voice and legacy fixed data services revenues; and bad debt expense returning to pre-pandemic levels driven by macroeconomic pressures compared to the prior period which saw historically low bad debt expense. (See *Section 5.3 Consolidated operations* for additional details.)

EBITDA, which includes restructuring and other costs and other equity losses related to real estate joint ventures, increased by \$142 million in the second quarter of 2022 and \$250 million in the first six months of 2022.

Adjusted EBITDA, which excludes restructuring and other costs and other equity losses related to real estate joint ventures, increased by \$132 million in the second quarter of 2022 and \$237 million in the first six months of 2022, reflecting the factors mentioned in the Operating income discussion above. (See *Section 5.3 Consolidated operations* for additional details.)

- **Income before income taxes** increased by \$210 million in the second quarter of 2022 and \$293 million in the first six months of 2022 as a result of higher Operating income and lower Financing costs. The decrease in Financing costs largely resulted from the virtual power purchase agreements unrealized change in forward element and capitalized long-term debt interest costs for 3500 MHz spectrum licences. (See *Financing costs* in *Section 5.3*.)
- **Income tax** expense increased by \$56 million in the second quarter of 2022 and \$68 million in the first six months of 2022. The effective tax rate increased from 24.4 to 25.0% in the second quarter of 2022, primarily due to the impact of tax adjustments recognized in the current period for income taxes of prior periods. The effective tax rate decreased from 26.4 to 25.6% in the first six months of 2022, primarily due to changes in non-deductible amounts related to TI’s initial public offering (IPO) in the first quarter of 2021, as well as higher non-taxable income in the first six months of 2022.
- **Net income attributable to Common Shares** increased by \$133 million in the second quarter of 2022 and \$187 million in the first six months of 2022, resulting from the after-tax impacts of higher Operating income and lower 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 and virtual power purchase agreements unrealized change in forward element. Adjusted Net income increased by \$74 million or 21.3% in the second quarter of 2022 and \$129 million or 18.2% in the first six months of 2022.

- **Basic EPS** increased by \$0.09 or 36.0% in the second quarter of 2022 and \$0.12 or 24.0% in the first six months of 2022 as a result of the after-tax impacts of higher Operating income and lower Financing costs, which were partially offset by 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 and virtual power purchase agreements unrealized change in forward element. Adjusted basic EPS increased by \$0.06 or 23.1% in the second quarter of 2022 and \$0.08 or 15.1% in the first six months of 2022.

- **Dividends declared per Common Share** were \$0.3386 in the second quarter of 2022, an increase of 7.1% from one year earlier. On August 4, 2022, the Board declared a third quarter dividend of \$0.3386 per share on our issued and outstanding Common Shares, payable on October 3, 2022, to shareholders of record at the close of business on September 9, 2022. The third quarter dividend was unchanged from the dividend declared in the second quarter of 2022 and increased by \$0.0224 per share or 7.1% from the \$0.3162 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 June 30, 2022, our total **telecom subscriber connections** increased by 1,028,000 or 6.3%. This reflected an increase of 4.3% in mobile phone subscribers, 15.2% in connected device subscribers, 6.9% in internet subscribers, 4.3% in TV subscribers and 24.5% in security subscribers, partly offset by a decline of 3.3% 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 \$6 million in the second quarter of 2022. For the first six months of 2022, Cash provided by operating activities increased by \$202 million, primarily driven by growth in EBITDA and lower income taxes paid, partly offset by other working capital changes. (See *Section 7.2 Cash provided by operating activities.*)
- **Cash used by investing activities** increased by \$578 million in the second quarter of 2022 and \$624 million in the first six months of 2022, largely attributable to greater cash payments for capital assets, excluding spectrum licences, payments made for portfolio and other investments and greater cash payments for business acquisitions. Capital expenditures increased by \$141 million in the second quarter of 2022 and \$289 million in the first six months of 2022, primarily due to accelerated investments in our 5G network, enhanced product development and digitization to continue our multi-year increase in system capacity and reliability. (See *Section 7.3 Cash used by investing activities.*)
- **Cash used by financing activities** increased by \$100 million in the second quarter of 2022 and \$1,254 million in the first six months of 2022 as we completed an equity issuance in the first quarter of 2021. Additionally, we received net cash proceeds from TI’s IPO in the first quarter of 2021. In the first six months of 2021, these factors were partly offset by greater long-term debt issued, net of redemptions and repayment. (See *Section 7.4 Cash provided (used) by financing activities.*)
- **Net debt to EBITDA – excluding restructuring and other costs** ratio was 3.23 times at June 30, 2022, up from 3.11 times at June 30, 2021, as the effect of the increase in net debt exceeded the effect of the increase in EBITDA – excluding restructuring and other costs, notwithstanding the COVID-19 pandemic impacts that have reduced EBITDA. As at June 30, 2022, the acquisition of spectrum licences increased the ratio by approximately 0.47 and business acquisitions over the past 12 months increased the ratio by approximately 0.09, while business dispositions over the same period decreased the ratio by approximately 0.25. (See *Section 4.3 Liquidity and capital resources* and *Section 7.5 Liquidity and capital resource measures.*)
- **Free cash flow** decreased by \$5 million in the second quarter of 2022 as the increase in capital expenditures and cash interest paid was partly offset by higher EBITDA. Free cash flow increased by \$89 million in the first six months of 2022, primarily driven by higher EBITDA and lower income taxes paid, partly offset by higher capital expenditures. The increase in capital expenditures was announced on March 25, 2021, to advance our fibre build and 5G coverage, which utilized proceeds from our first quarter 2021 equity offering. Our definition of free cash flow, for which there is no industry alignment, is unaffected by accounting standards that do not impact cash, such as IFRS 15 and IFRS 16.

2. Core business and strategy

Our core business and our strategic imperatives were described in our 2021 annual MD&A.

3. Corporate priorities for 2022

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 2022 corporate priorities.

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

- We continued to leverage our Connecting for Good® programs to support marginalized individuals. Driven by our commitment to bridge digital divides, we have positively impacted more than 37,000 Canadians in the first half of 2022. Since we launched the programs, we have supported almost 285,000 individuals.
 - In the first half of 2022, we welcomed more than 10,000 new households to our Internet for Good® program, resulting in more than 41,000 households and 133,000 low-income family members, persons with disabilities and youth leaving foster care all benefiting from low-cost internet since the launch of the program in 2016.
 - Up to June 30, 2022, we have added nearly 6,000 youth, seniors and other marginalized Canadians to our Mobility for Good® program, which offers free or subsidized smartphones and mobile phone rate plans to all youth aging out of foster care and to low-income seniors across Canada receiving the guaranteed income supplement. Since we launched the program in 2017, more than 34,000 individuals have benefited.
 - In the first half of 2022, our Tech for Good™ program provided close to 800 Canadians with disabilities access to

personalized one-on-one training, support and customized recommendations on mobile devices and/or access to discounted mobile plans. Since program inception, we have provided close to 5,500 Canadians with disabilities with professional assistance to help them independently use or control their mobile device and/or the TELUS Wireless Accessibility Discount.

- Our Health for Good® mobile health clinics, now serving 22 communities across Canada, supported more than 21,000 patient visits in the first half of 2022. Since the program’s inception, we have enabled close to 117,000 cumulative patient visits, helping us bring primary and mental health care to individuals experiencing homelessness.
- Driven by the passion and generosity of our TELUS team, we hosted the 17th annual TELUS Days of Giving across 20 countries. Overall, more than 65,000 team members, retirees, family and friends volunteered across the globe.
- In the first half of 2022, more than 75,000 Canadians participated in virtual TELUS Wise® workshops and events to improve digital literacy and online safety, bringing our cumulative participation to nearly 525,000 Canadians since the program launched in 2013.
- The TELUS Friendly Future Foundation® and TELUS Community Boards are directing all of their 2022 support to charitable initiatives that help youth and marginalized populations. In the first half of 2022, the Foundation granted more than \$7.7 million to over 440 charitable organizations. Since its inception in 2018, the Foundation has contributed \$32.9 million in cash donations to our communities, supported by the work of our TELUS Community Boards.
- The TELUS Indigenous Communities Fund was launched in 2021 and offers grants for Indigenous-led social, health and community programs. In the first half of 2022, the Fund allocated its first round of grants to five Indigenous-led organizations across Canada totalling \$100,000 in cash donations.
- In the second quarter of 2022, the TELUS Pollinator Fund for Good™ closed an additional six investments in socially innovative startup companies, including Goodr and TMRW Foods, bringing total investments to 21 portfolio companies. Additionally, in May 2022, the fund was named as a finalist in Fast Company’s 2022 World Changing Ideas Awards. This external recognition and validation of the fund’s mandate helps generate awareness and deal flow for the fund, helping us advance our mission to support purpose-driven, for-profit startup companies.
- In May 2022, TELUS was named the Most Trusted Telecom brand in Canada by Canadian consumers for the fourth consecutive year in the Gustavson Brand Trust Index, presented by the University of Victoria’s Peter B. Gustavson School of Business. We also made our debut on Gustavson’s list of Canada’s top 20 Most Authentic Brands, ranking 12th overall among 402 companies.
- For the second consecutive year, TELUS was named Canada’s Most Respected Mobile Service Provider according to Canada’s Most Respected Corporation Awards Program, ranking first out of 13 other mobile service providers. Koodo ranked second overall for this year’s award. The award was based on our reputation across customer service excellence, community giving, team culture, diversity, equity and inclusion efforts, as well as overall brand trust by the Canadian public.
- In June 2022, we were named to the Corporate Knights Best 50 Corporate Citizens in Canada for the 16th time. This year, we improved our position on the list, ranking in the top 10.
- On July 6, 2022, we celebrated the opening of TELUS Sky, our new state-of-the-art headquarters in downtown Calgary. TELUS Sky stands 60 storeys tall and contains 750,000 square feet of office and retail space including 326 rental homes and was built to leadership in energy and environmental design (LEED) platinum standards. With the completion of TELUS Sky, we now occupy the largest LEED footprint in North America, including TELUS Garden Vancouver, TELUS Harbour Toronto, TELUS House Ottawa and Place TELUS Quebec.
- Our renewable energy virtual power purchase agreements (VPPAs) with three solar facilities in Alberta realized combined production of 45 GWh in the second quarter of 2022 with two of those facilities beginning commercial operations during the quarter, and our VPPA with a wind facility in Alberta realized production of 19 GWh in the second quarter of 2022 after beginning commercial operations during the quarter.

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

- In April 2022, we were recognized as one of the *Best B2B Brands in Canada in 2022* by Report on Business, ranking sixth out of 79 companies in Canada, up from eighth in 2021. This is a testament to our team’s commitment to leverage our social purpose to create remarkable human outcomes while delivering exceptional experiences in the business-to-business (B2B) space.
- According to U.S.-based Ookla’s Speedtest Intelligence, we were the fastest mobile operator among top providers in Canada during the first quarter of 2022.
- In May 2022, we announced a strategic collaboration with Taoglas Waste Technologies to combine our Smart City solutions with the Taoglas Waste Insights software to allow for cities to vastly enhance the operation of waste management systems. These smart waste solutions present practical commercial benefits and, more importantly, make a lasting positive impact on the environment.
- In June 2022, our #StandWithOwners program returned for the third consecutive year, recommitting \$1 million to help businesses across Canada with funding, localized advertising and technology prizes.
- In U.S.-based PCMag’s report *The Fastest ISPs of 2022: Canada*, released in June 2022, we were ranked as the fastest nationwide internet service provider (ISP) in Canada among major ISPs for the third consecutive year. Among all major providers across Canada, the testers at PCMag experienced peak download speeds on the TELUS PureFibre network of up to 2,500 Mbps, and upload speeds more than 30% faster than any other widely available plans in Canada.

- In June 2022, we deployed new 3500 MHz spectrum on our next-generation 5G mobile network to further support our country’s economic growth and competitiveness, bringing enhanced capacity, low latency and even faster speed to our customers in Toronto, Montreal, Ottawa, Edmonton and Victoria.

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

TELUS Health

- During the ongoing COVID-19 pandemic, TELUS Health MyCare and TELUS Health Virtual Care 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. It also includes TELUS Health Companion on Apple Watch (available in English and French across Canada), which is a 24/7 emergency monitoring service provided through TELUS Health’s LivingWell Companion national response service combined with Apple Watch’s Fall Detection capabilities.
- 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 1,600 leading fitness, yoga, nutrition and mental health titles available for free, for rent or to own. It also includes leading mental health content from Calm, providing support to Canadians as they deal with the stresses brought on by the pandemic. We offer free content to 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.
- As described in *Section 1.3*, we announced an agreement to acquire LifeWorks Inc. for total offer consideration of \$2.3 billion and the assumption of net debt of approximately \$600 million, subject to the satisfaction of customary closing conditions. As of August 4, 2022, the LifeWorks shareholders had approved the transaction. We have also received conditional approval from the Toronto Stock Exchange and clearance from the New York Stock Exchange for the listing of our Common Shares issuable to LifeWorks shareholders, subject to satisfaction of customary listing conditions. Subject to required court and regulatory approvals, this transaction is expected to close in or about the fourth quarter of 2022. Customers will benefit from our team’s exceptional customer experiences, our consolidated engineering talent that will incorporate best-in-class data platform technologies to positively impact health outcomes for employees and their families, and our significantly expanded economics of scope and scale.

TELUS Agriculture & Consumer Goods

- TELUS Agriculture is broadening its business strategy to deliver data insights and a wide range of integrated digital solutions to customers beyond the agricultural sector. We are evolving the name of our agriculture unit to TELUS Agriculture & Consumer Goods as a signal of our commitment, building a unified TELUS brand that fully supports our strategic intent to link producers to consumers.
- In April 2022, we launched our cold chain platform. This platform offers our customers the ability to identify both high and low temperature extremes, providing a location, time and date of any breaches, which allows customers to reduce impacts to goods based specifically on where there are issues in the supply chain.
- We launched our new trade promotion management, optimization and analytics (TPx) solution, and have begun transitioning customers onto our platform with plans to continue transitioning more of our current customers throughout the year. The TPx solution allows food merchants to maximize profitability while minimizing waste and inefficiencies.

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

- TELUS International (TI) remains top of mind for clients and peers, winning various industry awards during the quarter in recognition of the company’s digital capabilities and leadership in the customer experience (CX) market:
 - For the second year in a row, TI won an AI Breakthrough Award for 2022. TI was recognized as a top company in the AI market for its intelligent TELUS International assistant, which was named Best Informational Bot in the Virtual Agents & Bots category based on a variety of considerations, including innovation, design and user-experience, as well as overall technological advancement.
 - TI was named a Star Performer on the 2022 Everest Group Trust and Safety, Content Moderation PEAK Matrix, highlighting TI’s improvement in market adoption and market share, as well as the company’s ability to scale, and its enhanced language capabilities and provision of localized services. TI was identified as one of only two companies in the Content Moderation segment globally with a market share of more than 10%.
 - Additionally, TI placed seventh on the Everest Group BPS Top 50 for 2022, a global list of the 50 largest third-party providers based on their BPS revenues and year-on-year growth.
 - TI was named a winner of the 2022 Excellence in Customer Service Award in the Organization of the Year category by

the Business Intelligence Group. The award recognized TI's superior performance in helping companies better communicate with their customers and provide a differentiated level of customer service.

- TI won in the Infrastructure category of Verint's Engage 2022 Integration Challenge for its work on integrating Verint's Google Cloud Platform-based solution with TELUS International's Contact Center as a Service (CCaaS) platform known as CC360.
- The 2022 Stevie Awards for Sales and Customer Service recognized TI and its client, the green tech scale-up called *refurbed*, in the Frontline Customer Service Team of the Year category. Since 2020, TI has supported *refurb* in its growth and expansion through the delivery of an exceptional customer experience.
- Forbes included TI on its list of Best Employers for Diversity in 2022. Informed by a survey of over 60,000 people, including TI's U.S. employees, the evaluation was based on four different criteria: direct recommendations, indirect recommendations, diversity among top executives/board and diversity engagement indicators.
- TI won Mogul's Top 100 Companies for Diverse Representation in 2022 award, recognizing the company's leadership in implementing practices, investing in resources and tools to hire diverse talent and placing diverse leaders across the organization.

4. Capabilities

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

4.1 Principal markets addressed and competition

For a discussion of our principal markets and an overview of competition, refer to *Section 4.1* in our 2021 annual MD&A.

4.2 Operational resources

TELUS technology solutions (TTech)

From mid-2013 through June 30, 2022, we have invested more than \$7.2 billion to acquire wireless spectrum licences in spectrum auctions and other private transactions. This has 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 June 30, 2022, our 4G LTE technology covered 99% of Canada’s population, consistent with June 30, 2021. We have continued to invest in the roll-out of our LTE advanced technology, which covered over 96% of Canada’s population at June 30, 2022, slightly higher than one year earlier. Furthermore, our 5G network, covered approximately 78% of Canada’s population at June 30, 2022, up from approximately 36% at June 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. Our home and business security integrates safety and security monitoring with smart devices.

As at June 30, 2022, more than 2.8 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 approximately 2.6 million households and businesses in the second quarter of 2021.

As at June 30, 2022, approximately 7% of our TV and internet customers within our PureFibre footprint are serviced by copper, down from 10% at March 31, 2022. The remaining TV and internet customers serviced by copper within our PureFibre footprint 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 agriculture and consumer goods solutions include farm management, precision agronomy, feedlot health management, herd management software, application programming interface (API) and application integration services, compliance management, food traceability and quality assurance, data management solutions and software solutions for trade promotion management, optimization and analytics (TPx), retail execution, and analytics capabilities.

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 our definition of capital, we include Common equity (excluding Accumulated other comprehensive income), non-controlling interests, 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, including those 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 (including Common Shares and TELUS International Subordinate Voting 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 specified 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 2022, we announced our intention to target ongoing semi-annual dividend increases, with the annual increase in the range of 7 to 10% from 2023 through to the end of 2025, 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 2025. (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 2025 and any further dividend growth programs* and *Section 10.14 Financing, debt and dividends* in our 2021 annual MD&A.)
- On August 4, 2022, the Board elected to declare a third quarter dividend of \$0.3386 per share, payable on October 3, 2022, to shareholders of record at the close of business on September 9, 2022. The third quarter dividend for 2022 reflects a cumulative increase of \$0.0224 per share or 7.1% from the \$0.3162 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 second quarter of 2022, for the dividends paid on April 1, 2022, our DRISP plan trustee acquired from Treasury approximately 5 million dividend reinvestment Common Shares for \$160 million. For the dividends paid on July 4, 2022, the DRISP participation rate, calculated as the DRISP investment of \$170 million (including the employee share purchase plan) as a percentage of gross dividends, was approximately 36%.
- TELUS International currently intends to retain all available funds and any future earnings to support operations and to finance the growth and development of its business.

Purchase Common Shares

- In June 2022, we received approval from the Toronto Stock Exchange (TSX) for a new NCIB program (2022 NCIB) to purchase and cancel up to 10 million Common Shares for an aggregate purchase price of up to \$250 million over a 12-month period, from June 6, 2022, to June 5, 2023, through the facilities of the TSX, the New York Stock Exchange and alternative Canadian trading systems or as otherwise permitted by applicable securities laws. TELUS will purchase Common Shares only when and if we consider it opportunistic, subject to any purchases that may be made under automatic share purchase plans (ASPP). As of August 5, 2022, we have not completed any transactions pursuant to our 2022 NCIB.
- We may also enter into an ASPP with a broker for the purpose of permitting us to purchase our Common Shares under our NCIB at times when we would not be permitted to trade in our shares, including regularly scheduled quarterly blackout periods. Such purchases will be determined by the broker in its sole discretion based on parameters that we have established prior to any blackout period, in accordance with TSX rules and applicable securities laws.
- Our 2021 NCIB concluded on June 3, 2022 and we did not purchase any shares pursuant to our 2021 NCIB.

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

- Our issued and outstanding commercial paper was \$1.9 billion at June 30, 2022, all of which was denominated in U.S. dollars (US\$1.5 billion), compared to \$1.9 billion (US\$1.5 billion) at December 31, 2021, and \$197 million (US\$159 million) at June 30, 2021.
- Net draws due to a syndicate of financial institutions (excluding TELUS Corporation) on the TI credit facility were US\$771 million at June 30, 2022, compared to US\$854 million at December 31, 2021, and US\$891 million at June 30, 2021. The TI credit facility is non-recourse to TELUS Corporation.
- Proceeds from securitized trade receivables were \$275 million at June 30, 2022, compared to \$100 million at both December 31, 2021 and June 30, 2021.

Report on financing and capital structure management plans

Maintain compliance with financial objectives

- Maintain investment grade credit ratings in the range of BBB+ or the equivalent – On August 5, 2022, investment grade credit ratings from the four rating agencies that cover TELUS were in the desired range. (See *Section 7.8 Credit ratings*.)
- Net debt to EBITDA – excluding restructuring and other costs ratio of 2.20 to 2.70 times – As measured at June 30, 2022, this ratio was 3.23 times, outside of the objective range, primarily due to the acquisition of spectrum licences as spectrum is our largest indefinite life asset, and the impacts of the COVID-19 pandemic. The net effect of business dispositions and business acquisitions increased the ratio. Given the cash demands of the 2019 600 MHz, the 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 2021, and upcoming 2023 and 2024, spectrum auctions), consistent with our long-term strategy. (See *Section 7.5 Liquidity and capital resource measures*.)
- Common Share dividend payout ratio of 60 to 75% of free cash flow on a prospective basis – Our objective range is on a prospective basis. The Common Share dividend payout ratio¹ 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 June 30, 2022, the ratio was 133%, outside of the objective range, primarily due to: (i) 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; and (ii) the reduction of EBITDA caused by the pandemic. Excluding the effects of our accelerated capital expenditures program of \$1,173 million, as at June 30, 2022, the ratio was 56%. (See *Section 7.5 Liquidity and capital resource measures*.)
- Generally maintain a minimum of \$1 billion in available liquidity – As at June 30, 2022, our available liquidity¹ was over \$1.5 billion. (See *Section 7.6 Credit facilities and Liquidity risk in Section 7.9*.)

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

4.4 Changes in internal control over financial reporting

For the three-month and six-month periods ended June 30, 2022, 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 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. Segmented information in *Note 5* of the interim consolidated financial statements is regularly reported to our Chief Executive Officer (CEO) (our chief operating decision-maker).

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; and home and business security); healthcare software and technology solutions; agriculture and consumer goods services (software, data management and data analytics-driven smart food-chain and consumer goods technologies); voice and other telecommunications services revenues; and equipment sales.

The digitally-led customer experiences – TELUS International (DLCX) segment, which has the U.S. dollar as its primary functional currency, is comprised of digital customer experience and digital-enablement transformation solutions, 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)	2022 Q2	2022 Q1	2021 Q4	2021 Q3	2021 Q2	2021 Q1	2020 Q4	2020 Q3
Operating revenues and other income¹	4,401	4,282	4,872	4,251	4,111	4,024	4,060	3,981
Operating expenses								
Goods and services purchased ²	1,637	1,594	1,882	1,660	1,609	1,548	1,766	1,632
Employee benefits expense ²	1,171	1,119	1,108	1,095	1,051	1,015	958	959
Depreciation and amortization	831	842	830	804	793	789	789	773
Total operating expenses	3,639	3,555	3,820	3,559	3,453	3,352	3,513	3,364
Operating income	762	727	1,052	692	658	672	547	617
Financing costs before long-term debt prepayment premium	97	179	192	184	203	207	190	187
Long-term debt prepayment premium	—	—	—	10	—	—	—	—
Income before income taxes	665	548	860	498	455	465	357	430
Income taxes	167	144	197	140	111	132	86	109
Net income	498	404	663	358	344	333	271	321
Net income attributable to Common Shares	468	385	644	345	335	331	260	307
Net income per Common Share:								
Basic earnings per share (EPS)	0.34	0.28	0.47	0.25	0.25	0.25	0.20	0.24
Adjusted basic EPS ³	0.32	0.30	0.23	0.29	0.26	0.27	0.22	0.28
Diluted EPS	0.34	0.28	0.47	0.25	0.25	0.25	0.20	0.24
Dividends declared per Common Share	0.3386	0.3274	0.3274	0.3162	0.3162	0.3112	0.3112	0.29125
Additional information:								
EBITDA	1,593	1,569	1,882	1,496	1,451	1,461	1,336	1,390
Restructuring and other costs	29	39	44	63	38	41	71	58
Other equity losses related to real estate joint ventures	—	—	1	—	1	1	2	8
Gain on disposition of financial solutions business	—	—	410	—	—	—	—	—
Adjusted EBITDA	1,622	1,608	1,517	1,559	1,490	1,503	1,409	1,456
Cash provided by operating activities	1,250	1,135	896	1,309	1,244	939	1,033	902
Free cash flow	205	415	43	203	210	321	218	161

1 In the fourth quarter of 2021, we recorded a gain on disposition of our financial solutions business of \$410 million.

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

3 See Section 11.1 Non-GAAP and other specified 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, our customers and our suppliers from operating in traditional manners of business in certain areas. While we expect the pandemic to continue to affect our operations until at least 2023, we have adapted, and continue to adapt, to future modes of operating.

The trend of year-over-year increases in consolidated revenue reflects TTEch growth, including: (i) mobile network revenue generated from growth in our subscriber base, including the acceleration of Internet of Things (IoT) connections, as well as the gradual recovery of roaming revenues from COVID-19 impacts; (ii) fixed data services growth across consumer and business lines in internet revenues, TV revenues, home and business security revenues, and other advanced application offerings; (iii) health revenues, including collaborative health records, pharmacy management and virtual pharmacy solutions, as well as our virtual care solutions; and (iv) agriculture and consumer goods services growth driven by business acquisitions and our digital solutions and data analytics. Increasing consolidated revenue has been partly offset by declining equipment revenue attributed to a lower volume of new contracts from the improving durability of devices, growing adoption of device financing arrangements, as well as by suppressed handset contract volumes and global chipset constraints in our supply chain. Consolidated revenue has also been impacted by other pandemic impacts, such as the temporary closure of our TELUS Health Care Centres in 2020, which began operating at reduced volume in 2021 and the early part of 2022, reduced health benefits management claims resulting from reduced activity, and business customers faced with reduced and/or closed operations. Increased internet and 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 we have been successfully bundling mobility and home services. Other income in the fourth quarter of 2021 included a gain on disposition of our financial

solutions business of \$410 million. 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 reflect growth in DLCX revenue from a combination of business acquisitions, including the acquisition of Lionbridge AI by TI on December 31, 2020, (since rebranded as TELUS International AI Data Solutions or TIAI), as well as 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; and higher operating costs associated with growth related to scaling our health offerings, agriculture and consumer goods services and our digital capabilities. TIAI utilizes contracted labour in servicing its customers as compared to solely utilizing employees, and these contracted services have contributed to year-over-year increases in Goods and services purchased.

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, agriculture and consumer goods offerings 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 as we continued to digitize our customer experience. We experienced year-over-year increases in net Employee benefits expense in 2022 related to merit-based compensation increases, including an April 2022 compensation program increase.

The trend of year-over-year increases in Depreciation and amortization reflects increases related 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 the ongoing build-out of our 5G network.

The trend of general 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 business acquisitions. Financing costs include a long-term debt prepayment premium of \$10 million in the third quarter of 2021. 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, and during the 3500 MHz spectrum auction. 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, varying amounts of interest income and effective for the second quarter of 2022, virtual power purchase agreements unrealized change in forward element.

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. 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. 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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Operating revenues						
Service	3,857	3,559	8.4%	7,622	7,061	7.9%
Equipment	516	550	(6.2)%	1,007	1,070	(5.9)%
Operating revenues (arising from contracts with customers)	4,373	4,109	6.4%	8,629	8,131	6.1%
Other income	28	2	n/m	54	4	n/m
Operating revenues and other income	4,401	4,111	7.1%	8,683	8,135	6.7%

Consolidated Operating revenues and other income increased by \$290 million in the second quarter of 2022 and \$548 million in the first six months of 2022.

- **Service revenues** increased by \$298 million in the second quarter of 2022 and \$561 million in the first six months of 2022. TTech service revenue growth was driven by (i) higher mobile network revenues, including growth in our mobile phone and connected devices subscriber bases and increased roaming revenues; (ii) increased data service revenues driven by higher revenue per internet customer, internet, security and TV subscriber growth, business acquisitions and expanded services; (iii) growth in agriculture and consumer goods services revenues driven by business acquisitions; and (iv) growth in health services revenues, largely driven by organic growth. This was partly offset by continued declines in legacy fixed voice and legacy fixed data services revenues. Growth in DLCX operating revenues resulted from organic growth from both expanded services for existing clients and growth from new clients. This was in addition to an overall unfavourable foreign currency impact in the first six months of 2022, led by the strengthening of the U.S. dollar against the European euro, partly offset by the strengthening of the U.S. dollar against the Canadian dollar.
- **Equipment revenues** decreased by \$34 million in the second quarter of 2022 and \$63 million in the first six months of 2022, largely reflecting lower mobile handset contract volumes and a greater mix of bring-your-own-device customer additions, partly offset by higher-value smartphones in the sales mix.
- **Other income** increased by \$26 million in the second quarter of 2022 and \$50 million in the first six months of 2022, largely resulting from decreases in provisions arising from business acquisition-related written put options, the reversal of provisions for contingent consideration related to business acquisitions, and higher gains on investments.

Operating expenses

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Goods and services purchased	1,637	1,609	1.7%	3,231	3,157	2.3%
Employee benefits expense	1,171	1,051	11.4%	2,290	2,066	10.8%
Depreciation	536	527	1.7%	1,087	1,051	3.4%
Amortization of intangible assets	295	266	10.9%	586	531	10.4%
Operating expenses	3,639	3,453	5.4%	7,194	6,805	5.7%

Consolidated operating expenses increased by \$186 million in the second quarter of 2022 and \$389 million in the first six months of 2022.

- **Goods and services purchased** increased by \$28 million in the second quarter of 2022 and \$74 million in the first six months of 2022 driven by: (i) organic DLCX business growth; (ii) higher costs associated with business acquisitions, as well as costs associated with scaling our agriculture and consumer goods and health businesses; (iii) higher costs related to the scaling of our digital capabilities, inclusive of increased subscription-based licences; (iv) bad debt expense returning to pre-pandemic levels driven by macroeconomic pressures compared to the prior period which saw historically low bad debt expense; (v) higher roaming expenses; and (vi) higher product and service costs supporting growth across our subscriber connections, including TV subscribers. These increases were partly offset by lower mobile equipment sales expense due to lower handset contract volumes, although this was partly muted by higher-value smartphones in the sales mix.
- **Employee benefits expense** increased by \$120 million in the second quarter of 2022 and \$224 million in the first six months of 2022, largely due to: (i) organic DLCX business growth; (ii) merit-based compensation increases; and (iii) higher compensation and benefit costs resulting from an increase in the number of employees related to business acquisitions. These increases were partly offset by lower share-based compensation in our DLCX segment resulting from mark-to-market adjustments on liability-accounted awards caused by a decrease in the TI share price, as compared to the comparative period, which saw an increase in the TI share price following the initial public offering (IPO), in addition to higher capitalized labour costs.
- **Depreciation** increased by \$9 million in the second quarter of 2022 and \$36 million in the first six months of 2022, primarily due to growth in capital assets over the past 12 months, including our expanded broadband footprint and business acquisitions, as well as asset retirement activity, which generated accelerated depreciation on those assets.
- **Amortization of intangible assets** increased by \$29 million in the second quarter of 2022 and \$55 million in the first six months of 2022 arising from business acquisitions and higher expenditures associated with the intangible asset base over the past 12 months.

Operating income

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
TTech EBITDA ¹ (See Section 5.4)	1,417	1,323	7.1%	2,817	2,659	5.9%
DLCX EBITDA ¹ (See Section 5.5)	176	128	37.1%	345	253	36.1%
EBITDA	1,593	1,451	9.8%	3,162	2,912	8.6%
Depreciation and amortization (discussed above)	(831)	(793)	4.8%	(1,673)	(1,582)	5.8%
Operating income (consolidated earnings before interest and income taxes (EBIT))	762	658	15.8%	1,489	1,330	12.0%

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

Operating income increased by \$104 million in the second quarter of 2022 and \$159 million in the first six months of 2022, while EBITDA increased by \$142 million in the second quarter of 2022 and \$250 million in the first six months of 2022. Higher EBITDA is reflective of: (i) higher mobile network revenues; (ii) increased contribution from our DLCX business; and (iii) increased internet and data service revenues driven by internet, security, and TV subscriber growth, business acquisitions, higher revenue per customer, and expanded services. These factors were partly offset by: (i) higher employee benefits expense; (ii) higher costs related to the scaling of our digital capabilities, inclusive of increased subscription-based licences; (iii) lower legacy fixed voice and legacy fixed data services revenues; and (iv) bad debt expense returning to pre-pandemic levels driven by macroeconomic pressures compared to the prior period which saw historically low bad debt expense.

Adjusted EBITDA

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
TTech Adjusted EBITDA ¹ (See Section 5.4)	1,436	1,353	6.1%	2,871	2,718	5.6%
DLCX Adjusted EBITDA ^{1,2} (See Section 5.5)	186	137	35.6%	359	275	30.5%
Adjusted EBITDA ¹	1,622	1,490	8.9%	3,230	2,993	7.9%

1 See Section 11.1 Non-GAAP and other specified 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 \$132 million or 8.9% in the second quarter of 2022 and \$237 million or 7.9% in the first six months of 2022, reflecting the factors mentioned in the Operating income discussion above.

Financing costs

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Interest on long-term debt, excluding lease liabilities – gross	179	172	4.1%	348	343	1.5%
Interest on long-term debt, excluding lease liabilities – capitalized	(12)	—	n/m	(27)	—	n/m
Interest on lease liabilities	17	17	—%	33	34	(2.9)%
Interest on short-term borrowings and other	3	4	(25.0)%	7	7	—%
Interest accretion on provisions	5	6	(16.7)%	8	11	(27.3)%
Interest expense	192	199	(3.5)%	369	395	(6.6)%
Employee defined benefit plans net interest	2	7	(71.4)%	4	13	(69.2)%
Foreign exchange (gains) losses	(17)	(1)	n/m	(16)	5	n/m
Virtual power purchase agreements unrealized change in forward element	(80)	—	n/m	(80)	—	n/m
Interest income	—	(2)	(100.0)%	(1)	(3)	(66.7)%
Financing costs	97	203	(52.2)%	276	410	(32.7)%

Financing costs decreased by \$106 million in the second quarter of 2022 and \$134 million in the first six months of 2022, mainly due to the following factors:

Interest expense decreased by \$7 million in the second quarter of 2022 and \$26 million in the first six months of 2022. These changes largely resulted from the following:

- Gross interest on long-term debt, excluding lease liabilities, increased by \$7 million in the second quarter of 2022 and \$5 million in the first six months of 2022, driven by an increase in average long-term debt balances outstanding in part attributable to business acquisitions, partly offset by a decrease in the blended effective

interest rate for the period. 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 June 30, 2022, as compared to 3.70% 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 3500 MHz spectrum auction held in June to July 2021 by Innovation, Science and Economic Development Canada (ISED).
- Employee defined benefit plans net interest** decreased by \$5 million in the second quarter of 2022 and \$9 million in the first six months of 2022, primarily due to the decrease in the defined benefit plan deficit as at December 31, 2021 to \$190 million (net of the plan asset ceiling limit of \$179 million), compared to the defined benefit plan deficit of \$913 million (net of the plan asset ceiling limit of \$123 million) one year earlier, partly offset by an increase in the discount rate.
- Foreign exchange (gains) losses** changed by \$16 million in the second quarter of 2022 and \$21 million in the first six months of 2022, primarily reflecting changes in the value of the Canadian dollar relative to the U.S. dollar, as well as the European euro relative to the Canadian dollar.
- Virtual power purchase agreements unrealized change in forward element** represents the estimated unrealized recorded amount from our virtual power purchase agreements (VPPAs) with renewable energy projects in Alberta as of June 30, 2022. We have entered into VPPAs with renewable energy projects that develop solar and wind power facilities as part of our commitment to reduce our carbon footprint.

Income taxes

(\$ in millions, except tax rates)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Income taxes computed at applicable statutory rates (%)	25.7	25.7	— pts.	25.6	25.7	(0.1) pts.
Adjustments recognized in the current period for income taxes of prior periods (%)	(0.9)	(3.0)	2.1 pts.	(0.5)	(1.5)	1.0 pts.
Non-deductible amounts (%)	0.3	1.3	(1.0) pts.	0.7	1.3	(0.6) pts.
Other (%)	(0.1)	0.4	(0.5) pts.	(0.2)	0.9	(1.1) pts.
Effective tax rate (%)	25.0	24.4	0.6 pts.	25.6	26.4	(0.8) pts.
Income taxes computed at applicable statutory rates	171	117	46.2%	311	236	31.8%
Adjustments recognized in the current period for income taxes of prior periods	(6)	(14)	(57.1)%	(6)	(14)	(57.1)%
Non-deductible amounts	3	6	(50.0)%	8	12	(33.3)%
Other	(1)	2	n/m	(2)	9	(122.2)%
Income taxes	167	111	50.5%	311	243	28.0%

Total income tax expense increased by \$56 million in the second quarter of 2022 and \$68 million in the first six months of 2022. The effective tax rate increased from 24.4 to 25.0% in the second quarter of 2022, primarily due to the impact of tax adjustments recognized in the current period for income taxes of prior periods. The effective tax rate decreased from 26.4 to 25.6% in the first six months of 2022, primarily due to changes in non-deductible amounts related to TI’s IPO in the first quarter of 2021, as well as higher non-taxable income in the first six months of 2022.

Comprehensive income

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Net income	498	344	44.8%	902	677	33.2%
Other comprehensive income (net of income taxes):						
Items that may be subsequently reclassified to income	(8)	(14)	(42.9)%	14	(1)	n/m
Items never subsequently reclassified to income	134	100	34.0%	298	774	(61.5)%
Comprehensive income	624	430	45.1%	1,214	1,450	(16.3)%

Comprehensive income increased by \$194 million in the second quarter of 2022, primarily attributable to the increase in Net income and employee defined benefit plans net re-measurement amounts. In the first six months of 2022, Comprehensive income decreased by \$236 million, largely driven by employee defined benefit plans re-measurement amounts, partly offset by the increase in Net income. 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

Tech trends and seasonality

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. The pandemic prevents us, our customers and our suppliers from operating in the normal course of business in certain areas, and we expect it to continue to affect our operations until at least 2023. For example, with the uncertainty surrounding COVID-19 variants, seasonal fluctuations in the spread of COVID-19, global population vaccine uptake, and government and land border restrictions, consumer and business travel levels are uncertain, which impacts roaming revenues. As well, our business customers who use our services have been experiencing, and in some instances continue to experience, 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 have largely operated at reduced volumes throughout 2021 and the early part of 2022. Impacts directly associated with the pandemic, such as the reduction of roaming revenue and health services (including TELUS Health Care Centres and health benefits management offerings) may be temporary in nature and have the potential to return to pre-pandemic levels.

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, supported by the recovery of international roaming revenue contribution to mobile phone ARPU, albeit still below our pre-pandemic baseline. These factors are partly offset by: (i) carriers offering larger allotments of data, as well as rate plans that include bonus data, unlimited data plans and data sharing; (ii) bundled service offers; and (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. 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 has been declining as a result of 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) the effects of the pandemic on customers, the industry, global chipset constraints in our supply chain and methods of distribution, and the Canadian economy. These factors are offset by an increase of higher-value smartphones in the sales mix.

The general trend of year-over-year increases in mobile phone subscriber net additions are attributable to: (i) our low churn rate, which reflects our customers first efforts, upgrade volume programs and focus on building, maintaining and enhancing our reliable, high-quality network; (ii) the success of our promotions, including the bundling of our mobility and home services; (iii) the effects of market growth arising from a growing population, changing population demographics and an increasing number of customers with multiple devices; and (iv) continuous improvements in the speed and quality of our 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, as well as the impacts of global semiconductor part shortages and supply constraints resulting in IoT customer loading delays. Our spectrum investments and capital expenditures on network improvements increase capacity, reliability and coverage, allowing us to grow revenue through net additions of mobile phone and connected devices subscribers.

Our internet subscriber base has grown as we continued our investments in expanding our fibre-optic infrastructure, supplemented by 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 healthy net additions in response to our diverse and flexible product offerings, combined with our low customer churn rate. Our security subscriber base growth is increasing as a result of organic growth and business acquisitions, including our recent acquisition of Vivint Smart Home in the second quarter of 2022. Our home services growth has also been attributable to the adoption of the TELUS Whole Home bundle and the bundling of our mobility and home services to meet the demand for multiple services per home. Adoption increases our services per home and positively impacts churn for most products, in addition to the effectiveness of our self-install and virtual install models. Residential voice subscriber losses continue to reflect the ongoing trend of substitution to mobile and internet-based services, but are partly mitigated by the success of our bundled service and lower-priced offerings.

The trend of growing fixed data services revenues is due to the continued appetite for faster internet speeds and larger bandwidth, as well as our diverse suite of TV, home and business security, and other advanced application offerings, which are enabled by 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.

The trend of growth in health service revenues has been propelled by the adoption of our health offerings, including virtual care and virtual pharmacy 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. Our competencies and assets in health, combined with the trend in digitization and automation, position 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 number of 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.

The trend of growth in agriculture and consumer goods services is the result of business acquisitions, expansion of our solutions and organic growth in an effort to meet increasing demand for digital solutions within the agriculture industry. Through our global team and cloud-based solutions, we are able to service our diverse client base, including growers, producers, agronomists, advisors, processors, and retailers by helping them drive more effective and agile decision-making to address changing consumer demands, improve profitability and create a better flow of information across the value chain. This improves the safety and sustainability of our food system and improves the way other goods are produced, distributed and consumed.

TTech operating indicators

At June 30	2022		2021	Change		
Subscriber connections (thousands):						
Mobile phone	9,429		9,043		4.3%	
Connected device ¹	2,238		1,943		15.2%	
Internet	2,335		2,185		6.9%	
TV	1,290		1,237		4.3%	
Residential voice	1,106		1,144		(3.3)%	
Security ²	925		743		24.5%	
Total telecom subscriber connections^{1,2}	17,323		16,295		6.3%	
LTE population coverage ³ (millions)	37.0		37.0		— %	
5G population coverage ³ (millions)	29.0		13.4		n/m	
	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Mobile phone gross additions (thousands)	320	305	4.9%	592	575	3.0%
Subscriber connection net additions (losses) (thousands):						
Mobile phone	93	89	4.5%	139	120	15.8%
Connected device	92	84	9.5%	138	147	(6.1)%
Internet	34	30	13.3%	64	63	1.6%
TV	15	11	36.4%	25	22	13.6%
Residential voice	(7)	(10)	30.0%	(17)	(20)	15.0%
Security	20	19	5.3%	46	36	27.8%
Total telecom subscriber connection net additions	247	223	10.8%	395	368	7.3%
Mobile phone ARPU, per month ⁴ (\$)	57.74	56.56	2.1%	57.10	56.33	1.4%
Mobile phone churn, per month ⁵ (%)	0.81	0.81	— pts.	0.81	0.85	(0.04) pts.
Health services (millions)						
At June 30	2022		2021	Change		
Healthcare lives covered	22.4		18.1		23.8%	
Virtual care members	3.6		2.2		63.6%	
	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Digital health transactions	145.4	137.1	6.1%	285.0	270.4	5.4%

- 1 Effective January 1, 2022 on a prospective basis, following an in-depth review of our definition of a subscriber, we adjusted our connected devices subscriber base to remove 34,000 subscribers within a legacy reporting system.
- 2 During the second quarter of 2022, we adjusted our cumulative security subscriber connections to add approximately 75,000 subscribers as a result of a business acquisition.
- 3 Including network access agreements with other Canadian carriers.
- 4 This is an other specified financial measure. See *Section 11.1 Non-GAAP and other specified financial measures*. This is an industry measure useful in assessing operating performance of a mobile products and services company, but is not a measure defined under IFRS-IASB.
- 5 See *Section 11.2 Operating indicators*.

- **Mobile phone gross additions** were 320,000 in the second quarter of 2022 and 592,000 in the first six months of 2022, reflecting increases of 15,000 for the quarter and 17,000 for the six-month period, driven by strong loading as a result of improvements in retail traffic as pandemic-related restrictions had lessened when compared to the prior year, and our successful promotions, including the bundling of mobility and home services.
- Our **mobile phone churn rate** was 0.81% in both the second quarter of 2022 and first six months of 2022, as compared to 0.81% in the second quarter of 2021 and 0.85% in the first six months of 2021. These relatively low churn rates reflect the overall continued focus on customer retention through a greater uptake of family discount and bundling efforts, and changes in customer preferences to hold onto devices for longer periods of time. 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 net additions** were 93,000 in the second quarter of 2022 and 139,000 in the first six months of 2022, reflecting increases of 4,000 for the quarter and 19,000 for the six-month period, driven by higher gross additions as described above. This is supported by consistently low customer churn as described above, particularly among high-value customers, while also realizing improvements driven by increased retail traffic compared to the prior year.
- **Mobile phone ARPU** was \$57.74 in the second quarter of 2022 and \$57.10 in the first six months of 2022, reflecting increases of \$1.18 or 2.1% for the quarter and \$0.77 or 1.4% for the six-month period. These increases were largely due to roaming improvements as a result of increased international travel volumes, albeit still below

our pre-pandemic baseline. Roaming improvements were partially offset by: (i) the impact of the competitive environment putting pressure on base rate plan prices in the current and prior periods; (ii) lower top-ups and chargeable usage revenues as customers continue to adopt larger data allotments in their rate plans; and (iii) a greater uptake of family discount and bundling credits to our customers, which helps us drive lower churn and greater lifetime value across our mobile and fixed products and services.

- **Connected device net additions** were 92,000 in the second quarter of 2022 and 138,000 in the first six months of 2022, reflecting an increase of 8,000 for the quarter and a decrease of 9,000 for the six-month period. Net additions in the current and the comparative periods are largely attributed to growth in our IoT connections across various industries, despite loading delays of some customers stemming from global semiconductor part shortages and supply constraints impacting the industry.
- **Internet net additions** were 34,000 in the second quarter of 2022 and 64,000 in the first six months of 2022, reflecting an increase of 4,000 for the quarter and relatively unchanged for the six-month period. The increase for the quarter was due to our success in driving strong gross additions through bundled product offerings, including the TELUS Whole Home bundle and our bundling of mobility and home services. This was offset by modestly higher churn compared to relatively low churn rates during heightened pandemic restrictions in the prior year.
- **TV net additions** were 15,000 in the second quarter of 2022 and 25,000 in the first six months of 2022, reflecting increases of 4,000 for the quarter and 3,000 for the six-month period, mainly due to strong loading in the business market and our diverse offerings, partly offset by modestly higher churn due to the factors discussed above for internet.
- **Residential voice net losses** were 7,000 in the second quarter of 2022 and 17,000 in the first six months of 2022, compared to residential voice net losses of 10,000 and 20,000, respectively, in the same periods in 2021. The residential voice subscriber losses continue to reflect the trend of substitution to mobile and internet-based services, mostly 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 20,000 in the second quarter of 2022 and 46,000 in the first six months of 2022, relatively unchanged for the quarter and an increase of 10,000 for the six-month period. The increase for the six-month period was driven by strong growth in new connections through demand for our bundled product offerings and diverse suite of products and services, offset by modestly higher churn due to the factors discussed above for internet. 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 385,000 over the past 12 months, including the addition of 75,000 customers from our acquisition of Vivint Smart Home.
- **Healthcare lives covered** were 22.4 million as of the end of the second quarter of 2022, an increase of 4.3 million over the past 12 months, mainly due to the continued demand for virtual solutions, an increase in value-added services including vaccination solutions, and an increase in coverage related to elective health services.
- **Virtual care members** were 3.6 million as of the end of the second quarter of 2022, an increase of 1.4 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.
- **Digital health transactions** were 145.4 million in the second quarter of 2022 and 285 million in the first six months of 2022, reflecting increases of 8.3 million for the quarter and 14.6 million for the six-month period, largely driven by higher adjudication transactions as plan members resume the utilization of elective health services with pandemic restrictions easing.

Operating revenues and other income – TTech segment

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Mobile network revenue	1,623	1,526	6.4%	3,200	3,029	5.6%
Mobile equipment and other service revenues	459	501	(8.4)%	899	974	(7.7)%
Fixed data services ¹	1,079	1,033	4.5%	2,136	2,038	4.8%
Fixed voice services	201	214	(6.1)%	401	428	(6.3)%
Fixed equipment and other service revenues	121	100	21.0%	234	207	13.0%
Health services	137	127	7.9%	277	250	10.8%
Agriculture and consumer goods services	81	58	39.7%	166	120	38.3%
Operating revenues (arising from contracts with customers)	3,701	3,559	4.0%	7,313	7,046	3.8%
Other income	28	2	n/m	54	4	n/m
External Operating revenues and other income	3,729	3,561	4.7%	7,367	7,050	4.5%
Intersegment revenues	4	5	(20.0)%	8	10	(20.0)%
TTech Operating revenues and other income	3,733	3,566	4.7%	7,375	7,060	4.5%

1 Excludes health services and agriculture and consumer goods services.

TTech Operating revenues and other income increased by \$167 million in the second quarter of 2022 and \$315 million in the first six months of 2022.

Mobile network revenue increased by \$97 million or 6.4% in the second quarter of 2022 and \$171 million or 5.6% in the first six months of 2022, reflecting 4.3% and 15.2% growth in the mobile phones and connected device subscriber bases, respectively, over the past 12 months, in addition to higher mobile phone ARPU, as described above.

Mobile equipment and other service revenues decreased by \$42 million in the second quarter of 2022 and \$75 million in the first six months of 2022, largely due to lower mobile handset contract volumes as a result of changes in customer preferences to hold onto devices for longer periods of time and a greater mix of bring-your-own-device customer additions. This was partly offset by the impact of higher-value smartphones in the sales mix.

Fixed data services revenues increased by \$46 million in the second quarter of 2022 and \$98 million in the first six months of 2022, driven by: (i) increased internet and data service revenues, reflecting higher revenue per customer resulting from internet speed upgrades, larger allotted data internet rate plans and rate changes, in addition to a 6.9% increase in our internet subscribers over the past 12 months; (ii) increased revenues from home and business security driven by expanded services and customer growth of 24.5% over the past 12 months; and (iii) higher TV revenues, reflecting subscriber growth of 4.3% over the past 12 months, mostly offset by an increased mix of customers selecting smaller TV combination packages and technological substitution. This growth was partially offset by the impact of the fourth quarter 2021 disposition of our financial solutions business and the ongoing decline in legacy data service revenues.

Fixed voice services revenues decreased by \$13 million in the second quarter of 2022 and \$27 million in the first six months of 2022, reflecting the ongoing decline in legacy voice revenues resulting from technological substitution and price plan changes. Declines were partly mitigated by the success of our bundled product offerings, retention efforts and the migration from legacy to IP services offerings.

Fixed equipment and other service revenues increased by \$21 million in the second quarter of 2022 and \$27 million in the first six months of 2022, reflecting higher sales volume and lower discounts on business and consumer premises equipment.

Health services revenues increased by \$10 million in the second quarter of 2022, driven by: (i) higher revenues from the continued adoption of our virtual care and virtual pharmacy solutions inclusive of organic growth and business acquisitions; (ii) growth in health benefits management services with plan members resuming the use of elective health services, partly offset by rate changes associated with a contract renewal; and (iii) growth in the use of our TELUS Health Care Centres. Health services revenues increased by \$27 million in the first six months of 2022 due to the factors discussed above, in addition to growth in collaborative health records adoption.

Agriculture and consumer goods services revenues increased by \$23 million in the second quarter of 2022 and \$46 million in the first six months of 2022, largely reflecting the impacts of business acquisitions, particularly with increased revenues from Software-as-a-Service (SaaS)-based revenue management software for consumer goods manufacturers, in addition to organic contributions from increased animal agriculture pharmacy and research revenues. Our agriculture and consumer goods revenues are largely earned in U.S. dollars, and in the second quarter of 2022 compared to the second quarter of 2021, the Canadian dollar weakened against the U.S. dollar, resulting in higher reported revenues in the quarter.

Other income increased by \$26 million in the second quarter of 2022 and \$50 million in the first six months of 2022, largely resulting from a decrease in the provisions arising from business acquisition-related written put options, the reversal of provisions for contingent consideration related to business acquisitions, and higher gains on investments.

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

Direct contribution – TTech segment

Second quarters ended June 30 (\$ in millions)	Mobile products and services ¹			Fixed products and services ^{1,2}			Total TTech		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
REVENUES									
Service	1,647	1,544	6.7%	1,538	1,465	5.0%	3,185	3,009	5.8%
Equipment	435	487	(10.7)%	81	63	28.6%	516	550	(6.2)%
Operating revenues (arising from contracts with customers)	2,082	2,031	2.5%	1,619	1,528	6.0%	3,701	3,559	4.0%
EXPENSES									
Direct expenses	609	669	(9.0)%	471	436	8.0%	1,080	1,105	(2.3)%
Direct contribution	1,473	1,362	8.1%	1,148	1,092	5.1%	2,621	2,454	6.8%

Direct contribution – TTech segment

Six-month periods ended June 30 (\$ in millions)	Mobile products and services ¹			Fixed products and services ^{1,2}			Total TTech		
	2022	2021	Change	2022	2021	Change	2022	2021	Change
REVENUES									
Service	3,247	3,070	5.8%	3,059	2,906	5.3%	6,306	5,976	5.5%
Equipment	852	939	(9.3)%	155	131	18.3%	1,007	1,070	(5.9)%
Operating revenues (arising from contracts with customers)	4,099	4,009	2.2%	3,214	3,037	5.8%	7,313	7,046	3.8%
EXPENSES									
Direct expenses	1,202	1,301	(7.6)%	932	863	8.0%	2,134	2,164	(1.4)%
Direct contribution	2,897	2,708	7.0%	2,282	2,174	5.0%	5,179	4,882	6.1%

1 Includes health services.

2 Includes agriculture and consumer goods 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 \$167 million or 6.8% in the second quarter of 2022 and \$297 million or 6.1% in the first six months of 2022.

TTech mobile products and services direct contribution increased by \$111 million or 8.1% in the second quarter of 2022 and \$189 million or 7.0% in the first six months of 2022, largely due to higher network revenues and higher equipment margins.

TTech fixed products and services direct contribution increased by \$56 million or 5.1% in the second quarter of 2022 and \$108 million or 5.0% in the first six months of 2022, due to growth in margins for internet and data, as well as health and agriculture and consumer goods services. These were partly offset by declining legacy data and legacy voice margins.

Operating expenses – TTech segment

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Goods and services purchased ¹	1,609	1,591	1.1%	3,170	3,124	1.5%
Employee benefits expense ¹	707	652	8.4%	1,388	1,277	8.7%
TTech operating expenses	2,316	2,243	3.3%	4,558	4,401	3.6%

1 Includes restructuring and other costs.

TTech operating expenses increased by \$73 million in the second quarter of 2022 and \$157 million the first six months of 2022.

Goods and services purchased increased by \$18 million in the second quarter of 2022 and \$46 million in the first six months of 2022, reflecting: (i) higher costs related to business acquisitions, as well as costs associated with scaling our agriculture and consumer goods and health businesses; (ii) higher costs related to the scaling of our digital capabilities, inclusive of increased subscription-based licences; (iii) bad debt expense returning to pre-pandemic levels driven by macroeconomic pressures compared to the prior period, which saw historically low bad debt expense; (iv) higher roaming expense; and (v) higher product and service costs in support of our growing subscriber connections, including TV subscribers. These factors were partly offset by lower mobile equipment sales expense due to lower handset contract volumes, although this was partly muted by higher value mobile devices in the sales mix.

Employee benefits expense increased by \$55 million in the second quarter of 2022 and \$111 million in the first six months of 2022, primarily due to merit-based compensation increases and higher compensation and benefits costs resulting from an increase in the number of employees related to business acquisitions. These increases were partly offset by higher capitalized labour costs.

EBITDA – TTech segment

(\$ in millions, except margins)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
EBITDA	1,417	1,323	7.1%	2,817	2,659	5.9%
Add restructuring and other costs included in EBITDA	19	29	n/m	54	57	n/m
Add other equity losses related to real estate joint ventures	—	1	n/m	—	2	n/m
Adjusted EBITDA	1,436	1,353	6.1%	2,871	2,718	5.6%
EBITDA margin ¹ (%)	37.9	37.1	0.8 pts.	38.2	37.7	0.5 pts.
Adjusted EBITDA margin ¹ (%)	38.4	37.9	0.5 pts.	38.9	38.5	0.4 pts.

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

TTech EBITDA increased by \$94 million or 7.1% in the second quarter of 2022 and \$158 million or 5.9% in the first six months of 2022. TTech Adjusted EBITDA increased by \$83 million or 6.1% in the second quarter of 2022 and \$153 million or 5.6% in the first six months of 2022, reflecting an increase in direct contribution. This was partially offset by higher employee benefits expense, higher costs related to the scaling of our health and agriculture and consumer goods businesses, and digital capabilities, inclusive of increased subscription-based licences, as well as bad debt expense returning to pre-pandemic levels driven by macroeconomic pressures compared to the prior period, which saw historically low bad debt expense.

EBIT – TTech segment

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
EBITDA	1,417	1,323	7.1%	2,817	2,659	5.9%
Depreciation	(498)	(491)	1.4%	(1,012)	(980)	3.3%
Amortization of intangible assets	(252)	(221)	14.0%	(497)	(441)	12.7%
EBIT ¹	667	611	9.2%	1,308	1,238	5.7%

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

TTech EBIT increased by \$56 million in the second quarter of 2022 and \$70 million in the first six months of 2022. Depreciation and amortization increased in the second quarter of 2022 and first six months of 2022 due to business acquisitions and growth in capital assets over the past 12 months, including our expanded fibre footprint and 5G network roll-out, in addition to accelerated depreciation from asset retirement activity and higher depreciation on right-of-use lease assets.

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, many 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 2023.

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 acquisition of Lionbridge AI on December 31, 2020 (since rebranded as TELUS International AI Data Solutions or 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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Operating revenues by industry vertical						
Tech and games	367	302	21.5%	722	585	23.4%
Communications and media	183	163	12.3%	359	326	10.1%
eCommerce and fintech	98	75	30.7%	196	145	35.2%
Banking, financial services and insurance	64	28	128.6%	108	55	96.4%
Travel and hospitality	24	16	50.0%	46	34	35.3%
Other	61	74	(17.6)%	125	152	(17.8)%
	797	658	21.1%	1,556	1,297	20.0%
Operating revenues by geographic region						
Europe	284	281	1.1%	581	547	6.2%
North America	201	151	33.1%	378	297	27.3%
Asia-Pacific	193	130	48.5%	372	262	42.0%
Central America	119	96	24.0%	225	191	17.8%
	797	658	21.1%	1,556	1,297	20.0%

Revenue from our tech and games industry vertical increased by \$65 million to \$367 million in the second quarter of 2022 and \$137 million to \$722 million in the first six months of 2022, due to expansion in our TIAI business and continued growth within our existing clients and the addition of new clients. Revenue generated from the banking, financial services and insurance vertical grew by \$36 million to \$64 million in the second quarter of 2022 and \$53 million to \$108 million in the first six months of 2022, driven by the addition of a leading global financial institution. Revenue generated from the eCommerce and fintech industry vertical grew by \$23 million to \$98 million in the second quarter of 2022 and \$51 million to \$196 million in the first six months of 2022, which was primarily attributable to new clients and growth within our existing client base. These increases were partly offset by the effect of foreign exchange rates. Across all of our verticals, the reported revenue growth rates were positively impacted by the strengthening U.S. dollar: Canadian dollar movements, which was offset by the unfavourable European euro: U.S. dollar currency movements compared to the same three-month and six-month periods in the prior year.

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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Operating revenues (arising from contracts with customers)	672	550	22.2%	1,316	1,085	21.3%
Intersegment revenues	125	108	15.7%	240	212	13.2%
DLCX Operating revenues and other income	797	658	21.1%	1,556	1,297	20.0%

DLCX Operating revenues and other income increased by \$139 million in the second quarter of 2022 and \$259 million in the first six months of 2022.

Our **digital and customer experience solutions revenues** increased by \$122 million in the second quarter of 2022 and \$231 million in the first six months of 2022, primarily attributable to growth in our tech and games clients as noted earlier, arising from additional services provided to existing clients and new clients added since the prior year, and the strengthening of the U.S. dollar against the Canadian dollar, resulting in a favourable foreign currency impact. The growth was partially offset by the strengthening of the U.S. dollar against the European euro, resulting in an unfavourable foreign currency impact on our European euro-denominated operating results. Foreign exchange fluctuations on contracts denominated in U.S. dollar, European euro and other currencies will impact revenues.

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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Goods and services purchased ¹	157	131	19.8%	309	255	21.2%
Employee benefits expense ¹	464	399	16.3%	902	789	14.3%
DLCX operating expenses	621	530	17.2%	1,211	1,044	16.0%

¹ Includes restructuring and other costs.

DLCX operating expenses increased by \$91 million in the second quarter of 2022 and \$167 million in the first six months of 2022.

Goods and services purchased increased by \$26 million in the second quarter of 2022 and \$54 million in the first six months of 2022 as a result of business growth, which includes higher contractor costs from expansion in the TIAI business.

Employee benefits expense increased by \$65 million in the second quarter of 2022 and \$113 million in the first six months of 2022 as a result of business growth, which has resulted in a higher team member count coupled with higher salaries and wages. The increase was offset, in part, by lower share-based compensation expense associated with the lower average share price of TELUS International during the quarter and first six months of 2022, resulting in lower expense on liability-accounted awards.

EBITDA – DLCX segment

(\$ in millions, except margins)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
EBITDA	176	128	37.1%	345	253	36.1%
Add restructuring and other costs included in EBITDA	10	9	n/m	14	22	n/m
Adjusted EBITDA¹	186	137	35.6%	359	275	30.5%
EBITDA margin ² (%)	22.2	19.6	2.6 pts.	22.2	19.6	2.6 pts.
Adjusted EBITDA margin² (%)	23.4	20.9	2.5 pts.	23.1	21.2	1.9 pts.

¹ 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.

² These are non-GAAP and other specified financial measures. See *Section 11.1 Non-GAAP and other specified financial measures*.

DLCX EBITDA increased by \$48 million or 37.1% in the second quarter of 2022 and \$92 million or 36.1% in the first six months of 2022. DLCX Adjusted EBITDA increased by \$49 million or 35.6% in the second quarter of 2022 and \$84 million or 30.5% in the first six months of 2022. Adjusted EBITDA margin increased by 2.5 percentage points in the second quarter of 2022 and 1.9 percentage points in the first six months of 2022. The increase in Adjusted EBITDA margin in both the second quarter and first six months of 2022 was due, in part, to the lower share-based compensation expense resulting from the lower average share price of TELUS International.

EBIT – DLCX segment

(\$ in millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
EBITDA	176	128	37.1%	345	253	36.1%
Depreciation	(38)	(36)	5.6%	(75)	(71)	5.6%
Amortization of intangible assets	(43)	(45)	(4.4)%	(89)	(90)	(1.1)%
EBIT ¹	95	47	102.1%	181	92	96.7%

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

DLCX EBIT increased by \$48 million in the second quarter of 2022 and \$89 million in the first six months of 2022, in conjunction with the increases in EBITDA.

6. Changes in financial position

Financial position at: (\$ millions)	June 30 2022	Dec. 31 2021	Change	Change includes:
Current assets				
Cash and temporary investments, net	382	723	(341)	See Section 7 Liquidity and capital resources
Accounts receivable	2,703	2,671	32	Primarily driven by an increase in unbilled customer finance receivables from our Bring-It-Back [®] device program, partly offset by a decrease in unbilled customer finance receivables from our TELUS Easy Payment [®] device financing program and seasonal decreases in customer receivables and sales volumes from our dealer and retail channels
Income and other taxes receivable	140	206	(66)	Instalments to date are less than the expense as well as income tax refunds received
Inventories	437	448	(11)	A decrease in the volume of handsets, partially offset by the advanced purchase of fixed product inventory
Contract assets	407	443	(36)	Refer to description in non-current contract assets
Prepaid expenses	717	528	189	An increase driven by the annual prepayment of statutory employee benefits, maintenance contracts and property tax, as well as the timing of wireless spectrum licence fees
Current derivative assets	65	13	52	An increase in the notional amount of U.S. currency hedging items.
Current liabilities				
Short-term borrowings	279	114	165	See Section 7.7 Sale of trade receivables
Accounts payable and accrued liabilities	3,406	3,705	(299)	A decrease associated with lower capital and operational expenditures, as well as a decrease in payroll and other employee-related liabilities. See Note 23 of the interim consolidated financial statements
Income and other taxes payable	114	104	10	Instalments to date being less than the expense
Dividends payable	467	449	18	Effects of increases in the dividend rate and the number of shares outstanding
Advance billings and customer deposits	858	854	4	An increase in advance billings reflecting increased mobile subscriber growth during the period. See Note 24 of the interim consolidated financial statements
Provisions	82	96	(14)	A decrease in employee-related restructuring provisions
Current maturities of long-term debt	3,146	2,927	219	An increase from a long-term debt reclassification of 3.35% Notes, Series CJ maturing in March 2023, partly offset by the maturity of Series 5, 9.65% TELUS Communications Inc. debentures
Current derivative liabilities	14	24	(10)	A decrease in the notional amount of hedging items.
Working capital (Current assets subtracting Current liabilities)	(3,515)	(3,241)	(274)	TELUS normally has a negative working capital position. See Financing and capital structure management plans in Section 4.3 and Note 4(c) of the interim consolidated financial statements.

Financial position at: (\$ millions)	June 30 2022	Dec. 31 2021	Change	Change includes:
Non-current assets				
Property, plant and equipment, net	16,282	15,926	356	See <i>Capital expenditures</i> in Section 7.3 <i>Cash used by investing activities</i> and <i>Depreciation</i> in Section 5.3 <i>Consolidated operations</i>
Intangible assets, net	17,625	17,485	140	See <i>Capital expenditures</i> in Section 7.3 <i>Cash used by investing activities</i> and <i>Amortization of intangible assets</i> in Section 5.3 <i>Consolidated operations</i>
Goodwill, net	7,439	7,281	158	An increase primarily due to the acquisition of Fully Managed Inc., Vivint Smart Home and 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	226	266	(40)	A decrease driven by lower subsidized devices from the uptake of our TELUS Easy Payment device financing program as well as lower mobile contract volumes
Other long-term assets	2,428	2,004	424	An increase in portfolio and other investments driven primarily by investments in LifeWorks Inc., an increase in derivative assets primarily due to virtual power purchase agreements, an increase in pension assets resulting from the gains arising from financial assumption re-measurements exceeding the combined effects of the pension asset ceiling and the pension plan returns less than the discount rate, and increases in the asset fair value of derivatives used to manage currency risk from U.S. dollar-denominated debt. These were partially offset by a decrease in unbilled customer finance receivables. See <i>Notes 4 and 20</i> of the interim consolidated financial statements.
Non-current liabilities				
Provisions	538	774	(236)	A decrease driven by the impact of discount rate changes related to asset retirement obligations
Long-term debt	18,482	17,925	557	See Section 7.4 <i>Cash provided (used) by financing activities</i>
Other long-term liabilities	580	907	(327)	A decrease in pension liabilities resulting from the gains arising from financial assumption re-measurements exceeding the combined effects of the pension asset ceiling and the pension plan returns less than the discount rate. See <i>Note 15</i> of the interim consolidated financial statements
Deferred income taxes	4,205	4,056	149	An increase in temporary differences between the accounting and tax basis of assets and liabilities, as well as an increase in deferred income taxes from business acquisitions.
Owners’ equity				
Common equity	15,716	15,116	600	See <i>Consolidated statements of changes in owners’ equity</i> in the interim consolidated financial statements
Non-controlling interests	964	943	21	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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Cash provided by operating activities	1,250	1,244	6	2,385	2,183	202
Cash used by investing activities	(1,438)	(860)	(578)	(2,637)	(2,013)	(624)
Cash provided (used) by financing activities	(204)	(104)	(100)	(89)	1,165	(1,254)
Increase (decrease) in Cash and temporary investments, net	(392)	280	(672)	(341)	1,335	(1,676)
Cash and temporary investments, net, beginning of period	774	1,903	(1,129)	723	848	(125)
Cash and temporary investments, net, end of period	382	2,183	(1,801)	382	2,183	(1,801)

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

(\$ millions)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Operating revenues and other income (see Section 5.3)	4,401	4,111	290	8,683	8,135	548
Goods and services purchased (see Section 5.3)	(1,637)	(1,609)	(28)	(3,231)	(3,157)	(74)
Employee benefits expense (see Section 5.3)	(1,171)	(1,051)	(120)	(2,290)	(2,066)	(224)
Restructuring and other costs, net of disbursements	8	(2)	10	(17)	(14)	(3)
Net employee defined benefit plans expense	25	30	(5)	52	56	(4)
Employer contributions to employee defined benefit plans	(8)	(12)	4	(25)	(28)	3
Share-based compensation expense, net of payments	42	52	(10)	68	87	(19)
Interest paid	(195)	(173)	(22)	(375)	(372)	(3)
Interest received	—	1	1	1	3	(2)
Income taxes paid, net of recoveries received	(130)	(133)	3	(238)	(353)	115
Other operating working capital changes	(85)	30	(115)	(243)	(108)	(135)
Cash provided by operating activities	1,250	1,244	6	2,385	2,183	202

Cash provided by operating activities increased by \$6 million in the second quarter of 2022 and \$202 million in the first six months of 2022.

- Interest paid increased by \$22 million in the second quarter of 2022 and \$3 million in the first six months of 2022, largely due to the timing of our long-term debt coupon payments.
- Income taxes paid, net of recoveries received, decreased by \$115 million in the first six months of 2022, primarily related to: (i) final payments made in the first quarter of 2021 related to the prior year; (ii) greater foreign taxes paid in the first six months of 2021; (iii) payments made in the first quarter of 2021 with respect to business combinations; and (iv) larger refunds received in the first six months of 2022.
- 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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Cash payments for capital assets, excluding spectrum licences	(1,016)	(771)	(245)	(2,029)	(1,521)	(508)
Cash payments for spectrum licences	—	(21)	21	—	(272)	272
Cash payments for acquisitions, net	(142)	(13)	(129)	(269)	(150)	(119)
Advances to, and investment in, real estate joint ventures and associates	(2)	(2)	—	(2)	(17)	15
Real estate joint venture receipts	1	1	—	2	2	—
Proceeds on disposition	7	1	6	12	1	11
Investment in portfolio investments and other	(286)	(55)	(231)	(351)	(56)	(295)
Cash used by investing activities	(1,438)	(860)	(578)	(2,637)	(2,013)	(624)

Cash used by investing activities increased by \$578 million in the second quarter of 2022 and \$624 million in the first six months of 2022.

- The increase in Cash payments for capital assets, excluding spectrum licences in both the second quarter of 2022 and first six months of 2022, was composed of:

- An increase in capital expenditures of \$141 million in the second quarter of 2022 and \$289 million in the first six months of 2022 (see *Capital expenditure measures* table and discussion below)
- Higher capital expenditure payments of \$104 million in the second quarter of 2022 and \$219 million in the first six months of 2022 with respect to payment timing differences.
- Cash payments for spectrum licences in the second quarter of 2021 were related to the acquisition of a 2500 MHz licence in the urban core of Calgary. 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 2022, we made cash payments for the acquisition of Vivint Smart Home as noted in *Section 1.3*. In the first six months of 2022, we made cash payments for the acquisition of Fully Managed Inc., as well as other individually immaterial business acquisitions that are complementary to our existing lines of business. This is compared to the first six months of 2021, where we made cash payments for individually immaterial business acquisitions that were complementary to our existing lines of business.
- Investment in portfolio and other investments increased by \$231 million in the second quarter of 2022 and \$295 million in the first six months of 2022, primarily from our investment in LifeWorks Inc. and an increase of capital inventory.

Capital expenditure measures

(\$ millions, except capital expenditure intensity)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Capital expenditures¹						
TELUS technology solutions (TTech) segment	1,016	882	15.2%	1,818	1,544	17.7%
Digitally-led customer experiences – TELUS International (DLCX) segment	38	31	22.6%	69	54	27.8%
Consolidated	1,054	913	15.4%	1,887	1,598	18.1%
TTech segment capital expenditure intensity ² (%)	27	25	2 pts.	25	22	3 pts.
DLCX segment capital expenditure intensity ² (%)	5	5	— pts.	4	4	— pts.
Consolidated capital expenditure intensity ² (%)	24	22	2 pts.	22	20	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 condensed interim 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 specified financial measures*.

Consolidated capital expenditures increased by \$141 million in the second quarter of 2022 and \$289 million in the first six months of 2022. TTech drove \$134 million of the increase in the second quarter of 2022 and \$274 million in the first six months of 2022, primarily due to accelerated investments in our 5G network, enhanced product development, and digitization to continue our multi-year increase in system capacity and reliability as announced on March 25, 2021. This was partly offset by reduced spend resulting from efficiencies in our 4G network and completion of some major system modernization and refresh programs in 2021. By June 30, 2022, our 5G network covered approximately 29 million Canadians, representing approximately 78% of the population.

On March 25, 2021, we announced that we intended to accelerate \$1.5 billion of capital spending in 2021 and 2022, with up to \$750 million of accelerated capital in 2021 and the remainder brought forward into 2022. Accelerated capital invested during the second quarter of 2022 and first six months of 2022 was \$265 million and \$465 million, respectively. This spend has enabled: (i) acceleration of premises to be connected to our fibre network; (ii) acceleration of our copper-to-fibre migration program; (iii) expansion of our fibre build to a number of additional communities, including many rural and Indigenous communities; (iv) advancement of our 5G network build, which covered approximately 78% of the Canadian population at June 30, 2022; and (v) progress with the implementation of our digital strategy, and enhancement of products that will bolster both long-term 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)	Second quarters ended June 30			Six-month periods ended June 30		
	2022	2021	Change	2022	2021	Change
Common Shares issued	—	—	—	—	1,300	(1,300)
Dividends paid to holders of Common Shares	(290)	(251)	(39)	(583)	(502)	(81)
Issue (repayment) of short-term borrowings, net	171	—	171	165	—	165
Long-term debt issued	1,770	1,250	520	4,057	2,225	1,832
Redemptions and repayment of long-term debt	(1,770)	(1,090)	(680)	(3,629)	(2,626)	(1,003)
Shares of subsidiary issued and sold to (purchased from) non-controlling interests, net	(85)	—	(85)	(85)	827	(912)
Other	—	(13)	13	(14)	(59)	45
Cash provided (used) by financing activities	(204)	(104)	(100)	(89)	1,165	(1,254)

Cash used by financing activities increased by \$100 million in the second quarter of 2022 and \$1,254 million in the first six months of 2022.

Common Shares issued

Common Shares issued reflect 51 million Common Shares issued at a price of \$25.35 per Common Share in the first quarter of 2021.

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 second quarter of 2022 and \$81 million in the first six months of 2022, 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 second quarter of 2022, our DRISP plan trustee acquired Common Shares for \$160 million.

In July 2022, we paid dividends of \$297 million to the holders of Common Shares and the trustee acquired dividend reinvestment Common Shares from Treasury for \$170 million, totalling \$467 million.

Issue (repayment) of short-term borrowings, net

In the second quarter of 2022, we drew-down amounts advanced to us from an arm’s-length securitization trust to finance working capital.

Long-term debt issued and Redemptions and repayment of long-term debt

In the second quarter of 2022, long-term debt issued increased by \$520 million, while redemptions and repayment of long-term debt increased by \$680 million. These changes were primarily composed of:

- A net increase in commercial paper outstanding, including foreign exchange effects, of \$508 million to a balance of \$1.9 billion (US\$1.5 billion) at June 30, 2022, from a balance of \$1.4 billion (US\$1.1 billion) at March 31, 2022. 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 TELUS International (TI) credit facility, including foreign exchange effects, of \$25 million. As June 30, 2022, net draws due to a syndicate of financial institutions (excluding TELUS Corporation) were US\$771 million, whereas as at March 31, 2022, net draws were US\$818 million. The TI credit facility is non-recourse to TELUS Corporation.
- The repayment upon maturity of \$249 million Series 5, 9.65% debentures of TELUS Communications Inc. (TCI) due April 2022.

For the first six months of 2022, long-term debt issued increased by \$1,832 million, while redemptions and repayment of long-term debt increased by \$1,003 million. In addition to some activity from the second quarter of 2022, the change in balance for the first six months of 2022 was primarily composed of:

- A net increase in commercial paper outstanding, including foreign exchange effects, of \$22 million from a balance of \$1.9 billion (US\$1.5 billion) at December 31, 2021.
- A decrease in net draws on the TI credit facility, including foreign exchange effects, of \$78 million. As at December 31, 2021, net draws due to a syndicate of financial institutions (excluding TELUS Corporation) were US\$854 million.

- The February 28, 2022 issue of US\$900 million of our senior unsecured 3.40% U.S. Dollar Sustainability-Linked Notes, due May 13, 2032. The net proceeds were used for the repayment of outstanding indebtedness, including the repayment of commercial paper, and for other general corporate purposes.

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 12.0 years at June 30, 2022, a decrease from 12.5 years at December 31, 2021 and from 12.3 years at June 30, 2021. 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 June 30, 2022, unchanged from 3.72% at December 31, 2021, and an increase from 3.70% at June 30, 2021.

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

In the second quarter of 2022, we acquired shares of TELUS International from a non-controlling interest. In connection with the TI initial public offering (IPO) in the first quarter of 2021, we received net cash proceeds of \$827 million.

Other

We incurred debt issuance costs in connection with the issuance of our senior unsecured 3.40% U.S. Dollar Sustainability-Linked Notes in the first quarter of 2022. This is compared to equity issuance costs in the first quarter of 2021 in connection with our issuance of 51 million Common Shares.

7.5 Liquidity and capital resource measures

Net debt was \$21.7 billion at June 30, 2022, an increase of \$3.5 billion compared to one year earlier, resulting mainly from an increase in commercial paper outstanding, lower Cash and temporary investments and the first quarter 2022 issuance of US\$900 million sustainability-linked notes as described in *Section 7.4*. These factors were partially offset by the third quarter 2021 early redemption of \$1 billion 2.35% Notes, Series CT, and the repayment upon maturity of Series 5, 9.65% debentures of TCI in the second quarter of 2022.

Fixed-rate debt as a proportion of total indebtedness, which excludes lease liabilities and other long-term debt, was 87% as at June 30, 2022, down from 96% one year earlier. This was mainly due to: (i) an increase in commercial paper outstanding, which is classified as floating-rate debt in this calculation; (ii) the third quarter 2021 early redemption of Series CT notes; and (iii) the repayment upon maturity of Series 5, 9.65% debentures of TCI in the second quarter of 2022. These factors were partially offset by: (i) the first quarter 2022 issuance of US\$900 million sustainability-linked notes as described in *Section 7.4*; and (ii) a decrease in net draws due to a syndicate of financial institutions (excluding TELUS Corporation) on the TI credit facility, which is non-recourse to TELUS Corporation.

Net debt to EBITDA – excluding restructuring and other costs ratio was 3.23 times, as measured at June 30, 2022, up from 3.11 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 June 30, 2022, this ratio remains outside of the long-term objective range resulting from prior issuances of incremental debt, primarily due to the acquisition of spectrum licences as spectrum is our largest indefinite life asset, and business acquisitions, partially offset by growth in EBITDA – excluding restructuring and other costs. EBITDA growth was reduced by COVID-19 pandemic impacts. As at June 30, 2022, the acquisition of spectrum licences increased the ratio by approximately 0.47 and business acquisitions over the past 12 months increased the ratio by approximately 0.09, while business dispositions decreased the ratio by approximately 0.25. 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 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 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 June 30, 2022 (see *Section 7.6 Credit facilities*).

Liquidity and capital resource measures

As at, or for the 12-month periods ended, June 30	2022	2021	Change
Components of debt and coverage ratios (\$ millions)			
Long-term debt	21,628	19,932	1,696
Net debt ¹	21,693	18,169	3,524
Net income	1,923	1,269	654
EBITDA – excluding restructuring and other costs ¹	6,715	5,846	869
Financing costs	662	787	(125)
Net interest cost ¹	755	786	(31)
Debt ratios			
Fixed-rate debt as a proportion of total indebtedness (excluding lease liabilities and other long-term debt) (%)	87	96	(9) 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)	12.0	12.3	(0.3)
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	3.70	0.02 pts.
Net debt to EBITDA – excluding restructuring and other costs ¹ (times)	3.23	3.11	0.12
Coverage ratios¹ (times)			
Earnings coverage	4.2	3.2	1.0
EBITDA – excluding restructuring and other costs interest coverage	8.9	7.4	1.5
Other measures¹ (%)			
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)	224	138	86 pts.
Determined using management measures			
Common Share dividend payout ratio – net of dividend reinvestment plan effects	133	111	22 pts.
1 See Section 11.1 Non-GAAP and other specified financial measures.			

Earnings coverage ratio for the 12-month period ended June 30, 2022 was 4.2 times, up from 3.2 times one year earlier. An increase in income before borrowing costs and income taxes increased the ratio by 1.1, while an increase in borrowing costs decreased the ratio by 0.1.

EBITDA – excluding restructuring and other costs interest coverage ratio for the 12-month period ended June 30, 2022 was 8.9 times, up from 7.4 times one year earlier. Growth in EBITDA – excluding restructuring and other costs increased the ratio by 1.1 and a decrease in net interest costs increased the ratio by 0.4.

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. The historical measure for the 12-month period ended June 30, 2022 is presented for illustrative purposes in evaluating our target guideline. As at June 30, 2022, the ratio was outside of the objective range, primarily due to: (i) 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; and (ii) the reduction of EBITDA caused by the pandemic. Excluding the effects of our accelerated capital expenditures program of \$1,173 million, as at June 30, 2022, the ratio was 56%.

TI intends to retain all available funds and any future earnings to support operations and to finance the growth and development of its business.

7.6 Credit facilities

At June 30, 2022, we had \$828 million of liquidity available from the TELUS revolving credit facility and \$929 million of liquidity available from the TI credit facility with a syndicate of financial institutions (excluding TELUS Corporation). In addition, we had \$325 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 billion of available liquidity.

TELUS credit facilities

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. As at June 30, 2022, we had incremental commitments for an unsecured non-revolving \$1.9 billion bank credit facility, maturing July 9, 2024, with a syndicate of financial institutions, which is to be used for general corporate purposes; subsequent to June 30, 2022, a definitive credit agreement was executed.

TELUS revolving credit facility at June 30, 2022

(\$ 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	—	—	(1,922)	828

¹ Canadian dollars or U.S. dollar equivalent.

Our credit facilities contain 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 June 30, 2022, our consolidated leverage ratio was 3.23 to 1.00 and our consolidated coverage ratio was 8.89 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 June 30, 2022. 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 June 30, 2022, TELUS International (Cda) Inc. had a credit facility, secured by its assets, expiring on January 28, 2025, with a syndicate of financial institutions, 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 3.12% as at June 30, 2022.

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 June 30, 2022, we had \$124 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 revolving bank credit facility. Available liquidity under various uncommitted letters of credit facilities was \$186 million at June 30, 2022.

Other long-term debt

Other liabilities bear interest at 3.19%, are secured by the AWS-4 spectrum licences associated with these other liabilities and a real estate holding, and are subject to amortization schedules, so that the principal is repaid over the periods to maturity, the last period ending March 31, 2035.

7.7 Sale of trade receivables

TCl, 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 currently 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 \$325 million as at June 30, 2022. (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.

TCI is required to maintain a credit rating of at least 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 August 5, 2022.

7.8 Credit ratings

There were no changes to our investment grade credit ratings during the second quarter of 2022 or as of August 5, 2022. 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 were described in *Section 7.9* in our 2021 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 June 30, 2022, TELUS Corporation could offer \$1.6 billion of debt or equity securities pursuant to a shelf prospectus that is in effect until June 2023. TELUS International has a shelf prospectus under which an unlimited amount of debt or equity securities could be offered and that is in effect until May 2024.

As at June 30, 2022, we had \$828 million of liquidity available from the TELUS revolving credit facility and \$929 million of liquidity available from the T1 credit facility with a syndicate of financial institutions (excluding TELUS Corporation) (see *Section 7.6 Credit facilities*), as well as \$325 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 \$382 million, we had available liquidity of more than \$1.5 billion at June 30, 2022 (see *Section 11.1 Non-GAAP and other specified financial measures*). 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 June 30, 2022, our contractual commitments related to the acquisition of Property, plant and equipment were \$446 million through to December 31, 2025, as compared to \$574 million over a period ending December 31, 2023 reported as at December 31, 2021. The decrease was primarily attributed to executing on 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 mobile 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 mobile 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)	June 30, 2022	July 31, 2022
Common Shares	1,381	1,387
Common Share options	3	3
Restricted share units – equity-settled	11	11

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 \$55 million in the second quarter of 2022 and first six months of 2022, respectively, compared to \$26 million and \$48 million in the comparable periods in 2021. The increase in compensation expense for key management personnel in the first six months of 2022 was primarily due to pension plan past service costs recorded in the first quarter of 2022. 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 second quarter of 2022, 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.

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, 2021. 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* in our 2021 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* in our 2021 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 2022 outlook, as described in *Section 9* in our 2021 annual MD&A, remain the same, except for the following:

- Our revised estimates for 2022 economic growth in Canada, B.C., Alberta, Ontario and Quebec are 3.9%, 4.1%, 5.1%, 3.8% and 3.1%, respectively (compared to 4.3%, 4.2%, 4.4%, 4.5% and 3.7%, respectively, as reported in our 2021 annual MD&A).

- Our revised estimates for 2022 annual unemployment rates in Canada, B.C., Alberta, Ontario and Quebec are 5.4%, 4.8%, 6.4%, 5.8% and 4.4%, respectively (compared to 6.1%, 5.2%, 7.1%, 6.1% and 5.3%, respectively, as reported in our 2021 annual MD&A).
- Our revised estimates for 2022 annual rates of housing starts on an unadjusted basis in Canada, B.C., Alberta, Ontario and Quebec are 240,000 units, 40,000 units, 32,000 units, 87,000 units and 59,000 units, respectively (compared to 224,000 units, 39,000 units, 30,000 units, 83,000 units and 55,000 units, respectively, as reported in our 2021 annual MD&A).

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* in our 2021 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 to permit Videotron to bid on set-aside blocks of spectrum in B.C., Alberta and Manitoba in the 3500 MHz auction. In the application, we argued 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 a portion of the set-aside spectrum that it eventually won. Our application was dismissed on May 17, 2022.

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

On November 18, 2021, ISED issued its decision on amendments to the 3500 MHz technical requirements due to its concern that 5G equipment operating on 3500 MHz spectrum may have the potential to cause interference with altimeters on aircraft. The decision included limiting use in areas around major airports and restricting the transmission of energy above the horizon. ISED projected next steps, including a future consultation, should Canadian or global developments and studies merit further changes to the technical rules as they relate to the radio altimeter protection issue. There is a risk that this decision could have a material impact on TELUS depending on how long they remain in application.

mmWave spectrum auction to support 5G

On June 5, 2019, ISED released its *Decision on Releasing Millimetre Wave Spectrum to Support 5G*, repurposing several tranches of millimetre wave (mmWave) spectrum for mobile use. On June 6, 2022, ISED issued its Consultation on a Policy and Licensing Framework for Spectrum in the 26, 28 and 38 GHz bands, which is the first step to setting the auction framework rules, including competitive measures for these mmWave bands. There is a risk that the auction rules will favour certain carriers over us and impact our ability to acquire an adequate quantity of mmWave spectrum. ISED maintains its projection that the mmWave auction will commence in the first quarter of 2024.

3800 MHz spectrum auction to support 5G

The 3800 MHz spectrum band is seen as an extension to the 3500 MHz band. 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. 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 (in the territories and northern parts of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Newfoundland and Labrador) are still deemed satellite-dependent areas and this spectrum is considered encumbered for mobile use in these areas. On June 30, 2022, ISED released its *Decision on a Policy and Licensing Framework for Spectrum in the 3800 MHz Band*, which defines the auction rules and conditions of licence for the 3800 MHz band. The auction framework includes a 100 MHz cap across the 3500 MHz and 3800 MHz bands. In 38 of the 172 licence areas, only 50 MHz of unencumbered spectrum is available and the remaining 200 MHz will be encumbered by coexistence with satellite earth stations. The limited amount of unencumbered spectrum in satellite-dependent areas may impact our ability to acquire an adequate quantity of 3800 MHz band spectrum. The deadline for receipt of applications and financial deposits for participation in the 3800 MHz spectrum auction is July 25, 2023. Auction bidding is scheduled to start October 24, 2023.

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 requires approvals by the Competition Bureau, the CRTC and ISED. On March 24, 2022, the CRTC issued a decision approving, with conditions, the transfer to Rogers of effective control of the broadcasting undertakings licensed to Shaw. The Public Interest Advocacy Centre and the National Pensioners Federation petitioned Cabinet to overturn the CRTC approval, but Cabinet dismissed this petition on June 23, 2022. The Competition Bureau has brought an application to the Competition Tribunal to block the transaction. The hearing of this application is scheduled to be heard in November 2022. Rogers and Shaw have also announced a transaction to divest Shaw’s Freedom Mobile assets to Québecor if the Competition Bureau agrees to allow the transaction on this basis. ISED has not yet made any public determinations with respect to the proposed transaction. It is possible that the parties to the transaction will agree to merger remedies that could negatively affect us, or that 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, including updating our domestic roaming tariff to include the provision of seamless roaming. 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. The Governor in Council dismissed the petition on April 14, 2022.

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 mobile 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.

Application to seek a review of domestic wholesale roaming rates

On May 19, 2022, Bragg Communications Inc., Cogeco Communications Inc., Videotron Ltd., Xplornet Communications Inc. and Xplore Mobile Inc. filed a joint application to the CRTC seeking a review of the tariffed rates currently charged by

Rogers, Bell and TELUS for domestic wholesale roaming, claiming that the current rates are no longer just and reasonable. We have filed an answer to this application demonstrating why such a review is not warranted at this time. The impact of this application is dependent upon whether the CRTC decides to undertake a review of mandated roaming rates and to what extent there are any changes for current tariffed rates.

Wireline wholesale services 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, 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 process, which took the place of the previous follow-up proceedings, is now closed. 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. The Federal Court of Appeal granted leave to appeal on September 15, 2021. The Governor in Council dismissed the petitions on May 26, 2022.

Draft policy direction to CRTC

On May 26, 2022, the Governor in Council released a draft policy direction to the CRTC and commenced a consultation to solicit comments from the public. The draft direction would repeal the two existing policy directions, but retain certain elements, including requirements concerning competition, investment and affordability. The draft direction would require the CRTC to take certain steps, including to mandate the provision of aggregated wholesale high-speed internet access until there is sufficient competition to no longer require it, as well as to consider extending the seven-year time period during which users of the CRTC’s MVNO mandate are required to build their own facilities. We are participating in the consultation. We are unable to assess the materiality of the draft direction until we see its final form and know whether it will be implemented.

New draft cybersecurity legislation

On June 14, 2022, the federal government introduced Bill C-26, *An Act respecting cyber security, amending the*

Telecommunications Act and making consequential amendments to other Acts. The legislation would amend the *Telecommunications Act* to, among other things, allow the Governor in Council to prohibit telecommunications service providers from using equipment from designated companies in their networks. In practice, this will allow the federal government to ban the use of Huawei and ZTE equipment in our network and impose penalties for non-compliance. The legislation would also create a new statute, the Critical Cyber Systems Protection Act (CCSPA). The CCSPA would require designated federally regulated corporations to maintain cybersecurity plans, impose reporting requirements and impose penalties for non-compliance. Bill C-26 received first reading on June 14, 2022. If we are ultimately subject to an order requiring us to remove a significant amount of equipment from our network, the effect could be material.

Government of Canada request to improve Canadian network resiliency

As a result of a recent Rogers network outage, on July 11, 2022, the Minister of Innovation, Science and Industry held a meeting with representatives of Bell, Eastlink, Rogers, SaskTel, Shaw, Videotron and TELUS to discuss improving the resiliency of networks across Canada. The Minister requested that these carriers enter into a formal agreement to ensure mutual assistance during any future outages, emergency roaming and communications protocols to ensure that the public and authorities are well informed during future network disruptions, and that the formal agreement be finalized within 60 days. The CRTC is also holding an inquiry into the recent outage and what further steps can be taken to improve network resiliency. We are working with other Canadian telecommunications service providers to meet the Minister’s request and will fully participate in this and other follow-up initiatives as required. It is too early to determine if these initiatives will have a material impact until they are concluded.

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 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.

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. 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. Consistent with this directive, we are now transiting live NG9-1-1 traffic over our NG9-1-1 network, but full implementation of NG9-1-1 in our NG9-1-1 territory is contingent on interconnections with 9-1-1 call centres and such implementation is dependent upon local government authorities. We continue our work to fully implement NG9-1-1.

Development of a network-level blocking framework to limit botnet traffic

On June 23, 2022, the CRTC released *Development of a network-level blocking framework to limit botnet traffic and strengthen Canadians’ online safety*, Compliance and Enforcement and Telecom Decision CRTC 2022-170. The Commission has asked its technical working group, the CRTC Interconnection Steering Committee, to examine the issue and produce a report within nine months about how ISPs can implement network blocking of malicious botnet traffic.

Parties will have an opportunity to comment on the report prior to the Commission rendering any further determinations. The outcome is not expected to be material.

Federal private sector privacy bill proposes to repeal and replace the Personal Information Protection and Electronic Documents Act

On June 16, 2022, Bill C-27 was introduced and received first reading in the House of Commons. The *Digital Charter Implementation Act, 2022* proposes to enact the *Consumer Privacy Protection Act* (replacing the existing private sector privacy legislation and implementing new consumer privacy rights, enhanced enforcement powers and a private right of action), the *Personal Information and Data Protection Tribunal Act* (a new adjudicative body to provide independent oversight on enforcement activities by the regulator) and the *Artificial Intelligence and Data Act* (a new regulatory regime for the use of AI in the private sector, using a risk-based framework supported by extensive enforcement powers). The legislation proposes significant changes to federal privacy legislation in Canada, however, until the legislation is passed in its final form, we are unable to determine the materiality of the proposed changes.

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 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.

Ontario introduces bill to change handling of personal health information

On April 14, 2022, the *Pandemic and Emergency Preparedness Act, 2022* received royal assent. The Act amends the *Personal Health Information Protection Act* to empower the government to make regulations specifying the following: acceptable electronic formats for access rights to personal health information (PHI); the circumstances persons or entities may collect, use and disclose PHI; the security requirements; the disclosure requirements; and additional categories of persons or entities, who can collect, use or disclose PHI. The materiality of the change cannot be fully assessed before the regulations are available.

Proposed subsidy increases for Northwestel

On November 2, 2020, the CRTC initiated the first phase of 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. On June 8, 2022, the CRTC released Telecom Notice of Consultation CRTC 2022-147 initiating the second phase of this review, leaving open the potential for subsidy increases. A decision is unlikely before 2024. The impact of this proceeding is not expected to be material.

Broadcasting-related issues

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 Bill C-10 to amend the *Broadcasting Act*. On June 21, 2021, Senate debate of Bill C-10 was cut short upon the proroguing of Parliament and the calling of the federal election. On February 2, 2022, the government introduced Bill C-11, which is largely the same as its predecessor Bill C-10, that seeks to: bring streaming services that operate over the internet expressly within the scope of the *Broadcasting Act*; provide 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 provide a more sustainable source of support for Canadian content going forward. Bill C-11 is currently in second reading at the Senate, having passed third reading at the House of Commons on June 21, 2022. Until Bill C-11 is finalized, it is too early to determine if it will have a material impact on us.

Review of the Copyright Act and Copyright Board reforms

The *Copyright Act’s* last statutorily mandated review was launched in 2017 and resulted in reports from the Standing Committee on Industry, Science and Technology and the Standing Committee on Canadian Heritage being presented to the House of Commons in the summer of 2019. The parliamentary review led to further government consultations (described below) launched in 2021 to explore specific issues raised during the review, such as how to modernize the copyright framework for online intermediary liability, AI and Internet of Things (IoT). The timeline for potential changes to the *Copyright Act* is uncertain, although government officials have signalled that comprehensive copyright reform

legislation may be tabled sometime in 2022. In the meantime, the federal government’s 2022 budget included proposed amendments to extend the term of copyright by 20 years, which was required to satisfy Canada’s obligations under the Canada-United States-Mexico Agreement. 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 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 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 a vertically integrated broadcasting entity 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 company filed an application for leave to appeal the Federal Court of Appeal’s decision to the Supreme Court of Canada to which we filed an opposing response. On May 12, 2022, the Supreme Court of Canada denied the application for leave to appeal.

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. In March 2022, the government established an expert advisory group on online safety, with a mandate to provide the Minister of Canadian Heritage with advice on how to design the legislative and regulatory framework to address harmful content online and how to best incorporate the feedback received during the national consultation held from July to September 2021. The impact of this consultation is not expected to be material.

10. Risks and risk management

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. The principal risks and uncertainties that could affect our future business results and associated risk mitigation activities were described in our 2021 annual MD&A and have not materially changed since December 31, 2021, except for the following updates:

The conflict between Russia and Ukraine

In February 2022, Russia, aided by Belarus, commenced military operations in Ukraine which are still continuing. In response to the conflict, a number of countries including the United States, Canada and other North Atlantic Treaty Organization (NATO) countries, have imposed significant sanctions against Russia, Belarus, and a number of individuals and enterprises in both countries. The prolonged conflict has resulted in increased political uncertainties and volatility in the global economy, which is affecting businesses around the world, including TI’s clients. The scope, intensity, duration

and outcome of the conflict is uncertain. Given the nature of TI’s global business and operations, political, economic and other conditions in foreign countries and regions, including geopolitical risks, may adversely affect our results of operations. However, we do not currently expect that such uncertainty and volatility will have any material operational or financial impact on our telecommunications business as our international roaming arrangements in Russia and Belarus have been suspended in compliance with applicable sanctions. Our roaming arrangements in Russia, Belarus and Ukraine are not material to our telecommunications business. If the conflict and the sanctions intensify, this may adversely impact TI’s clients and their demand for TI’s services, which may have a material adverse impact on TI’s results of operations. Additionally, although TI does not operate in Russia, Belarus or Ukraine, TI has operations and team members in neighbouring countries and any escalation of the conflict could adversely impact its operations and team members in these countries, which could materially impact its ability to deliver services to its clients, and may have a material effect on TI’s results of operations. During the three-month and six-month periods ended June 30, 2022, we have not experienced a material impact on our operating results due to the conflict.

There is also no certainty that the current conflict between Russia and Ukraine will not draw military or other intervention from additional countries, which could lead to a much larger conflict and/or additional sanctions, which could further negatively impact the global economy. In addition, we cannot predict the impact that an escalation of the conflict may have on TI’s clients and each of their financial conditions. Any material adverse effect on TI’s clients, including due to conflict, could adversely impact us. Further, the risk of cybersecurity incidents has increased in connection with the ongoing conflict. It is possible that these attacks could have collateral effects on critical communications infrastructure and financial institutions globally, which could adversely affect our operations and could increase the frequency and severity of cyber-based attacks against our information technology systems. The proliferation of malware from the conflict into systems unrelated to the conflict, or cyberattacks against companies based in countries that have instituted sanctions against Russia and Belarus, such as the United States, could also adversely affect our results of operations. To the extent the current conflict between Russia and Ukraine adversely affects our business, it may also have the effect of heightening many other risks disclosed in *Section 10 Risks and risk management* in our 2021 annual MD&A, any of which could materially and adversely affect our business and results of operations.

11. Definitions and reconciliations

11.1 Non-GAAP and other specified 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.

Adjusted Net income and adjusted basic earnings per share (EPS): These are non-GAAP measures that do not have any standardized meaning prescribed by IFRS-IASB and are therefore unlikely to be comparable to similar measures presented by other issuers. 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 other adjustments (identified in the following tables). Adjusted basic EPS is calculated as adjusted net income divided by the basic weighted-average number of Common Shares outstanding. 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. They should not be considered alternatives to Net income and basic EPS in measuring TELUS’ performance.

Reconciliation of adjusted Net income

(\$ millions)	Second quarters ended June 30		Six-month periods ended June 30	
	2022	2021	2022	2021
Net income attributable to Common Shares	468	335	853	666
Add (deduct) amounts net of amount attributable to non-controlling interests:				
Restructuring and other costs	27	34	64	69
Tax effect of restructuring and other costs	(8)	(8)	(16)	(16)
Income tax-related adjustments	(6)	(14)	(6)	(14)
Other equity losses related to real estate joint ventures	—	1	—	2
Virtual power purchase agreements unrealized change in forward element	(80)	—	(80)	—
Tax effect of virtual power purchase agreements unrealized change in forward element	21	—	21	—
Adjusted Net income	422	348	836	707

Reconciliation of adjusted basic EPS

(\$)	Second quarters ended June 30		Six-month periods ended June 30	
	2022	2021	2022	2021
Basic EPS	0.34	0.25	0.62	0.50
Add (deduct) amounts net of amount attributable to non-controlling interests:				
Restructuring and other costs, per share	0.02	0.03	0.04	0.05
Tax effect of restructuring and other costs, per share	—	(0.01)	(0.01)	(0.01)
Income tax-related adjustments, per share	—	(0.01)	—	(0.01)
Virtual power purchase agreements unrealized change in forward element, per share	(0.06)	—	(0.06)	—
Tax effect of virtual power purchase agreements unrealized change in forward element, per share	0.02	—	0.02	—
Adjusted basic EPS	0.32	0.26	0.61	0.53

Available liquidity: This is a non-GAAP measure that does not have any standardized meaning prescribed by IFRS-IASB and is therefore unlikely to be comparable to similar measures presented by other issuers. Available liquidity is calculated as the sum of Cash and temporary investments, net, amounts available from the revolving credit facility and amounts available under our trade receivables securitization program measured at the end of the period. We believe this to be a useful measure because it allows us to monitor compliance with our financial objectives. It should not be considered as an alternative to Cash and temporary investments, net in measuring TELUS’ performance.

Available liquidity reconciliation

As at June 30 (\$ millions)	2022	2021
Cash and temporary investments, net	382	2,183
Net amounts available from the TELUS Corporation revolving credit facility	828	2,553
Amounts available under trade receivables securitization program	325	400
Available liquidity	1,535	5,136

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

Calculation of Capital expenditure intensity

Second quarters ended June 30 (\$ millions, except ratio)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Capital expenditures	1,016	882	38	31	—	—	1,054	913
Denominator – Operating revenues and other income	3,733	3,566	797	658	(129)	(113)	4,401	4,111
Capital expenditure intensity (%)	27	25	5	5	n/m	n/m	24	22

Calculation of Capital expenditure intensity

Six-month periods ended June 30 (\$ millions, except ratio)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Capital expenditures	1,818	1,544	69	54	—	—	1,887	1,598
Denominator – Operating revenues and other income	7,375	7,060	1,556	1,297	(248)	(222)	8,683	8,135
Capital expenditure intensity (%)	25	22	4	4	n/m	n/m	22	20

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 4.3 Liquidity and capital resources* and *Section 7.5 Liquidity and capital resource measures*.)

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

For the 12-month periods ended June 30 (\$ millions, except ratio)	2022	2021
Numerator – Sum of the last four quarterly dividends declared	1,796	1,609
Cash provided by operating activities	4,590	4,118
Less:		
Capital expenditures (excluding spectrum licences)	(3,787)	(2,952)
Denominator – Cash provided by operating activities less capital expenditures (excluding spectrum licences)	803	1,166
Ratio (%)	224	138

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

Determined using management measures

For the 12-month periods ended June 30 (\$ millions, except ratio)	2022	2021
Sum of the last four quarterly dividends declared	1,796	1,609
Sum of the last four quarterly amount of dividends declared reinvested in Common Shares	(644)	(600)
Numerator – Sum of the last four quarterly dividends declared, net of dividend reinvestment plan effects	1,152	1,009
Denominator – Free cash flow ¹	866	910
Ratio (%)	133	111

¹ Reflects the impacts of our accelerated capital program announced on March 25, 2021.

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

Calculation of Earnings coverage

For the 12-month periods ended June 30 (\$ millions, except ratio)	2022	2021
Net income attributable to Common Shares	1,842	1,233
Income taxes (attributable to Common Shares)	603	410
Borrowing costs (attributable to Common Shares) ¹	756	734
Numerator	3,201	2,377
Denominator – Borrowing costs	756	734
Ratio (times)	4.2	3.2

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 as 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 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 and Adjusted EBITDA reconciliations

Second quarters ended June 30 (\$ millions)	TTech		DLCX		Total	
	2022	2021	2022	2021	2022	2021
Net income					498	344
Financing costs					97	203
Income taxes					167	111
EBIT	667	611	95	47	762	658
Depreciation	498	491	38	36	536	527
Amortization of intangible assets	252	221	43	45	295	266
EBITDA	1,417	1,323	176	128	1,593	1,451
Add restructuring and other costs included in EBITDA	19	29	10	9	29	38
EBITDA – excluding restructuring and other costs	1,436	1,352	186	137	1,622	1,489
Other equity losses related to real estate joint ventures	—	1	—	—	—	1
Adjusted EBITDA	1,436	1,353	186	137	1,622	1,490

EBITDA and Adjusted EBITDA reconciliations

Six-month periods ended June 30 (\$ millions)	TTech		DLCX		Total	
	2022	2021	2022	2021	2022	2021
Net income					902	677
Financing costs					276	410
Income taxes					311	243
EBIT	1,308	1,238	181	92	1,489	1,330
Depreciation	1,012	980	75	71	1,087	1,051
Amortization of intangible assets	497	441	89	90	586	531
EBITDA	2,817	2,659	345	253	3,162	2,912
Add restructuring and other costs included in EBITDA	54	57	14	22	68	79
EBITDA – excluding restructuring and other costs	2,871	2,716	359	275	3,230	2,991
Other equity losses related to real estate joint ventures	—	2	—	—	—	2
Adjusted EBITDA	2,871	2,718	359	275	3,230	2,993

We calculate **EBITDA margin** and **Adjusted EBITDA margin** to evaluate the performance of our operating segments and we believe these measures are also used by investors as indicators of a company’s operating performance. We calculate EBITDA margin as EBITDA divided by Operating revenues and other income. Adjusted EBITDA margin is a non-GAAP ratio that does not have any standardized meaning prescribed by IFRS-IASB and is therefore unlikely to be comparable to similar measures presented by other issuers. We calculate Adjusted EBITDA margin as Adjusted EBITDA divided by adjusted Operating revenues.

Calculation of EBITDA margin

Second quarters ended June 30 (\$ millions, except margin)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Numerator – EBITDA	1,417	1,323	176	128	—	—	1,593	1,451
Denominator – Operating revenues and other income	3,733	3,566	797	658	(129)	(113)	4,401	4,111
EBITDA margin (%)	37.9	37.1	22.2	19.6	n/m	n/m	36.2	35.3

Calculation of EBITDA margin

Six-month periods ended June 30 (\$ millions, except margin)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Numerator – EBITDA	2,817	2,659	345	253	—	—	3,162	2,912
Denominator – Operating revenues and other income	7,375	7,060	1,556	1,297	(248)	(222)	8,683	8,135
EBITDA margin (%)	38.2	37.7	22.2	19.6	n/m	n/m	36.4	35.8

Calculation of Adjusted EBITDA margin

Second quarters ended June 30 (\$ millions, except margin)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Numerator – Adjusted EBITDA	1,436	1,353	186	137	—	—	1,622	1,490
Adjusted Operating revenues and other income:								
Operating revenues and other income	3,733	3,566	797	658	(129)	(113)	4,401	4,111
Other equity losses related to real estate joint ventures	—	1	—	—	—	—	—	1
Denominator – Adjusted Operating revenues and other income	3,733	3,567	797	658	(129)	(113)	4,401	4,112
Adjusted EBITDA margin (%)	38.4	37.9	23.4	20.9	n/m	n/m	36.9	36.2

Calculation of Adjusted EBITDA margin

Six-month periods ended June 30 (\$ millions, except margin)	TTech		DLCX		Eliminations		Total	
	2022	2021	2022	2021	2022	2021	2022	2021
Numerator – Adjusted EBITDA	2,871	2,718	359	275	—	—	3,230	2,993
Adjusted Operating revenues and other income:								
Operating revenues and other income	7,375	7,060	1,556	1,297	(248)	(222)	8,683	8,135
Other equity losses related to real estate joint ventures	—	2	—	—	—	—	—	2
Denominator – Adjusted Operating revenues and other income	7,375	7,062	1,556	1,297	(248)	(222)	8,683	8,137
Adjusted EBITDA margin (%)	38.9	38.5	23.1	21.2	n/m	n/m	37.2	36.8

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. It is similar to the coverage ratio covenant in our credit facilities, as described in *Section 7.6 Credit facilities*.

Calculation of EBITDA – excluding restructuring and other costs interest coverage

For the 12-month periods ended June 30 (\$ millions, except ratio)	2022	2021
Numerator – EBITDA – excluding restructuring and other costs	6,715	5,846
Denominator – Net interest cost	755	786
Ratio (times)	8.9	7.4

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 as 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 standards 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)	Second quarters ended June 30		Six-month periods ended June 30	
	2022	2021	2022	2021
EBITDA	1,593	1,451	3,162	2,912
Restructuring and other costs, net of disbursements	8	(2)	(17)	(14)
Effects of contract asset, acquisition and fulfilment (IFRS 15 impact) and TELUS Easy Payment device financing	49	33	127	85
Effects of lease principal (IFRS 16 impact)	(125)	(124)	(248)	(247)
Items from the condensed interim consolidated statements of cash flows:				
Share-based compensation, net	42	52	68	87
Net employee defined benefit plans expense	25	30	52	56
Employer contributions to employee defined benefit plans	(8)	(12)	(25)	(28)
Interest paid	(195)	(173)	(375)	(372)
Interest received	—	1	1	3
Capital expenditures (excluding spectrum licences) ¹	(1,054)	(913)	(1,887)	(1,598)
Free cash flow before income taxes	335	343	858	884
Income taxes paid, net of refunds	(130)	(133)	(238)	(353)
Free cash flow	205	210	620	531

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)	Second quarters ended June 30		Six-month periods ended June 30	
	2022	2021	2022	2021
Free cash flow	205	210	620	531
Add (deduct):				
Capital expenditures (excluding spectrum licences) ¹	1,054	913	1,887	1,598
Effects of lease principal and leases accounted for as finance leases prior to adoption of IFRS 16	125	124	248	247
Individually immaterial items included in Net income neither providing nor using cash	(134)	(3)	(370)	(193)
Cash provided by operating activities	1,250	1,244	2,385	2,183

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

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.

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*.

Calculation of Net debt to EBITDA – excluding restructuring and other costs

For the 12-month periods ended June 30 (\$ millions, except ratio)	2022	2021
Numerator – Net debt	21,693	18,169
Denominator – EBITDA – excluding restructuring and other costs	6,715	5,846
Ratio (times)	3.23	3.11

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, virtual power purchase agreements unrealized change in forward element,

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.

Calculation of Net interest cost

For the 12-month periods ended June 30 (\$ millions)	2022	2021
Financing costs	662	787
Deduct: Employee defined benefit plans net interest	(17)	(21)
Add: Interest on long-term debt, excluding lease liabilities – capitalized	30	20
Add: Virtual power purchase agreements unrealized change in forward element	80	—
Net interest cost	755	786

11.2 Operating indicators

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

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).

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).

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

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