TMX GROUP LIMITED

ANNUAL REPORT 2021

The future is yours to see.

Letter from the chair

This past year was significant for TMX Group despite the continued challenges of the global pandemic. The strength and resilience of our business model was apparent with the strong performance and major accomplishments during the year. We made significant progress on our strategic priorities including accelerating growth, developing talent and culture, advocating for better markets, and integrating sustainability into our operations. We also completed the acquisition of AST Canada, which will accelerate the growth in the TSX Trust business.

As always, I want to recognize my fellow Board members, and thank them for their wise counsel and ongoing dedication. In particular, I want to acknowledge Marie Giguère who will retire at our annual shareholder meeting this year. I would like to thank Marie for her valued contributions over her many years as a Board member and as Chair of our Governance and Regulatory Oversight Committee. In 2021, we were very pleased to welcome Audrey Mascarenhas, who joined the Board in May.

On behalf of the Board, I extend a sincere thank you to the team at TMX Group for their continued commitment, and their tremendous achievements in 2021. Finally, I want to express my appreciation to our clients and shareholders for their support of TMX Group.

Charles Winograd
Chair, Board of Directors
TMX Group Limited
March 18, 2022

Letter from the CEO

Our company had a tremendous year in 2021 marked by strong performances and major accomplishments across our business areas, making important progress with our strategic initiatives. Throughout the year and in every facet of our business, our team of professionals demonstrated an unwavering commitment to our clients and stakeholders, rising to meet the increased demands, and the day-to-day challenges of a busy market all while navigating the realities of work and home-life during pandemic conditions.

2021 Highlights

Our impressive performance in 2021 reflected significant contributions across our business areas, including capital formation, derivatives trading and clearing, and Trayport, and stands as powerful evidence of TMX's ability to serve the diverse needs of our dynamic and global client base.

Capital Formation

Revenue from capital formation increased 36% from 2020. It was an incredibly strong year in terms of deal-making activity and new listings on our equity markets. Our stock list has become very diverse, with companies of all sizes and stages of maturity, from a broad range of sectors, offering compelling opportunities to investors.

We continue to expand the reach and raise the profile of our markets beyond our borders, through our targeted business development program. On a combined basis, TSX and TSXV ranked third among our global exchange peers by number of new international listings in 2021. We welcomed close to 50 new issuers from the United States and other regions of TMX Group focus including Israel, Australia and South America. The addition of new listings; from large cap companies and big name IPOs to early-stage juniors, builds our markets stronger and deeper and enhances our value proposition among global investors.

Canada's markets are among the best in the world: deep and diverse, fair and liquid, innovative and responsive. But markets are not static, and must continue to evolve. We are committed to working in collaboration with our clients and stakeholders to innovate and adapt our offerings to make markets better and ensure we retain our competitive edge into the future.

In August, we completed the acquisition of AST Canada, a leading provider of transfer agency, corporate trust and related services and the integration is well underway. This acquisition represents an exciting addition to our TSX Trust offering; broadening the range of services and solutions we provide to listed issuers.

Derivatives Trading & Clearing

Revenue from our Derivatives Trading and Clearing business was up 13% from 2020, largely driven by an increase in Montréal Exchange (MX) total volumes of 29%. This increase was somewhat offset by lower revenue per contract, reflecting changes in client and product mix as well as incentives designed to build long-term, sustainable liquidity.

MX continues to adapt its suite of products to meet investor demand. In November 2021, we launched the 30-year Government of Canada Bond Futures contract, adding another liquidity point to our futures curve to complement the Two, Five and Ten-Year contracts. The new 30-year contract is designed to facilitate hedging for longer maturity instruments, and to create more cross-market trading opportunities.

In keeping with the cross-market theme, MX took a major step forward in its global expansion plans with the September launch of extended trading hours to sync with the Asia Pacific time zone. An initiative that began in 2018 with trading on London time, extended trading hours on MX directly connects us to the world's premier financial centers, enabling sophisticated modern investors, in all time zones, to trade Canada on their time. The initial response to Asia Pacific hours has been very positive, despite the challenges the pandemic poses in terms of business development halfway across the world.

Looking ahead to next year, in response to the growing demand for risk management products in the crypto space, MX is working towards introducing a cash-settled futures product designed to enable investors to hedge cryptocurrency investments. Our team continues to examine ways we can enhance the overall MX client experience and augment our market-making program to attract more retail trading.

Trayport

We are pleased to report double-digit revenue growth in Trayport with a 10% increase compared to 2020. Trayport's tailored product suite plays an important role in energy markets, especially in uncertain conditions, equipping clients with data and analytic capabilities to make informed decisions. Our network offers a key access point; connecting traders, portfolio managers and analysts to execution venues, across power and natural gas markets. In response to rapidly evolving global energy markets and the ongoing transition to renewables gathering momentum, Trayport continues to explore opportunities to diversify its client offering and expand into new asset classes and geographies.

Strategic Update

In addition to a stellar year from a performance perspective, 2021 was a very important year for TMX Group in terms of progress made in our four strategic priorities:

- Accelerating growth, across the enterprise and our business areas,
- Enhancing our Talent & Culture, by investing in our people,
- Activating TMX Group as a vocal proponent and advocate or smart policy measures to help ensure Canada's markets maintain our competitive edge, and
- Integrating Environmental Social Governance (ESG) & Sustainability objectives and initiatives into TMX Group's corporate and business objectives.

In June, we welcomed David Arnold, TMX Group's new Chief Financial Officer. Along with a demonstrated expertise in leading complex, large-scale business initiatives, David brings an innovative mindset and a collaborative spirit to the role, which fits squarely with TMX Group's corporate mission, client first vision and employee culture.

Last quarter, we appointed Michelle Tran, a respected TMX veteran with deep connections across our client community as the new President of TMX Datalinx. More recently, we once again tapped into the depth of expertise and wealth of experience within the organization to appoint Tim Babcock as the new Vice President and Head of TSX Venture Exchange. Tim has more than twenty years of experience with TSXV. His knowledge and expertise in regards to all aspects of the business and community, coupled with his leadership skills, position him and the TSX Venture franchise for ongoing success. This is an exciting time for TMX Group. Filling these key roles, and others, from inside our organization demonstrates our commitment to nurturing talent, and developing exceptional leaders. It stands as compelling evidence that we are on the right track to establishing a high-performance culture.

TMX Group remains committed to executing an effective, long-term growth strategy, serving stakeholders in our markets across the world with excellence through all market conditions, and continuing to deliver value to our shareholders.

I look forward to updating you on our progress at our Annual and Special Meeting in May.

John McKenzie
Chief Executive Officer
TMX Group
March 18, 2022

2021 MD& A

Management's Discussion and Analysis

TMX Group Limited

MANAGEMENT'S DISCUSSION AND ANALYSIS

February 7, 2022

This Management's Discussion and Analysis (MD&A) of TMX Group Limited's (TMX Group) financial condition and financial performance is provided to enable a reader to assess our financial condition, material changes in our financial condition and our financial performance, including our liquidity and capital resources, for the year ended December 31, 2021, compared with the year ended December 31, 2020 and as at December 31, 2021 and December 31, 2020. This MD&A should be read together with our audited annual consolidated financial statements for the year ended December 31, 2021 (financial statements).

Our financial statements and this MD&A for 2021 are filed with Canadian securities regulators and can be accessed at www.tmx.com and www.sedar.com. The financial measures included in this MD&A are based on financial statements prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), unless otherwise specified. All amounts are in Canadian dollars unless otherwise indicated.

Additional information about TMX Group, including the Annual Information Form, is available at www.tmx.com and www.sedar.com. We are not incorporating information contained on our website in this MD&A.

MD&A Structure

Our MD&A is organized into the following key sections:

- Mission, Client First Vision, Sustainable Growth and Financial Objectives;
- Our Response to COVID-19 Pandemic;
- Initiatives and Accomplishments - 2021 initiatives and accomplishments;
- Organizational Changes - an update on senior management changes;
- Regulatory Changes - an update on the regulatory environment;
- Market Conditions - a discussion of our current business environment;
- Our Business - a detailed description of our operations and our products and services;
- Results of Operations - a year-over-year comparison of results;
- Liquidity and Capital Resources - a discussion of changes in our cash flow, our outstanding debt and the resources available to finance existing and future commitments;
- Managing Capital - an outline of objectives for managing our cash and cash equivalents, marketable securities, share capital, Commercial Paper, Debentures, and credit and liquidity facilities;
- Financial Instruments;
- Critical Accounting Estimates - a review of our goodwill and intangible assets - valuation and impairment;

- Select Annual and Quarterly Financial Information - a discussion of select annual information from 2019-2021, the fourth quarter of 2021 compared with the corresponding period in 2020 and the results over the previous eight quarters;
- Enterprise Risk Management - a discussion of the risks to our business as identified through our risk management process as well as Financial Risk Management;
- Accounting and Control Matters - a discussion of changes in accounting policies adopted in 2021 and future changes in accounting policies, an evaluation of our disclosure controls and procedures and internal control over financial reporting and changes to internal control over financial reporting; and
- Caution Regarding Forward-Looking Information.

MISSION, CLIENT FIRST VISION, SUSTAINABLE GROWTH AND FINANCIAL OBJECTIVES

Mission

We power capital and commodity markets with client-centric, technology-driven global solutions.

Client First Vision

To be an indispensable solution for companies around the world to raise capital and the preferred destination for traders and investors to prosper.

Sustainable Growth[1]

We prioritize four areas in our efforts to drive sustainable growth and in order to thrive in both today and tomorrow's environmental context:

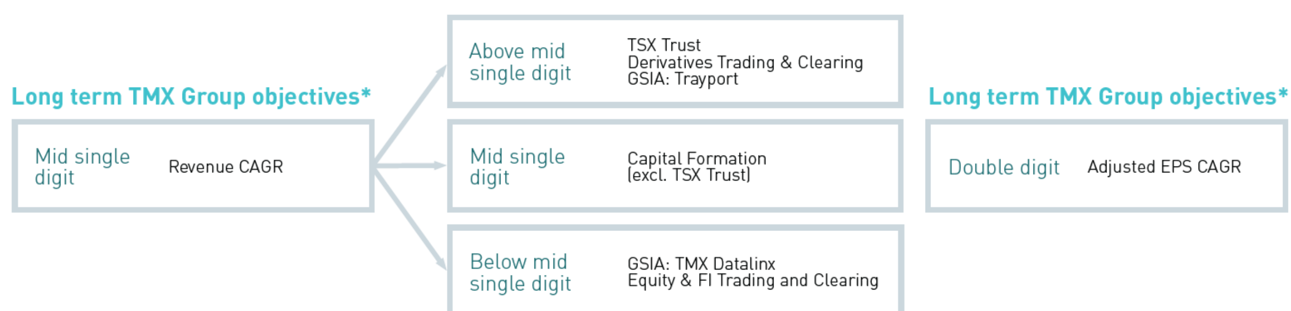
- Growth Acceleration: Accelerate strategies to position TMX Group competitively in areas of high growth potential such as Capital Formation, Derivatives Trading & Clearing, and Trayport
- Talent and Culture: Invest in our people to both fulfil our employee purpose and to foster long-term sustainable growth
- Advocate for Better: Collaborate with clients, regulators, and government stakeholders to make the Canadian capital markets more competitive globally
- Environmental, Social and Governance (ESG): Drive long-term sustainable growth through an integration of ESG objectives and initiatives into divisional and corporate objectives

[1] The "Sustainable Growth" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainties related to such statements.

Financial Objectives[2]

In November 2018, we set long term financial objectives of achieving a mid single digit compound annual growth rate (CAGR) for organic revenue (revenue excluding acquisitions and divestitures in comparative periods) and a double digit CAGR for adjusted EPS[3] based on certain assumptions and expected performance over time. (Please refer to Select Annual Financial Information for net income and earnings per share for 2019, 2020 and 2021). While we continue to believe that these aspirational goals are reasonable, we may not be able to achieve these financial objectives, as our assumptions may prove to be inaccurate and therefore our actual results could differ materially from our long term objectives. For example, the COVID-19 pandemic is having an unprecedented impact on the global economy and markets. At this point, it is difficult to predict the impact that this will have in the short term on our business, and the longer term impact on our aspirational goals.

Our long term objectives do not constitute guidance. Our current profitability and our ability to attain these goals in a given period must be weighed against our need to invest in our business in order to execute on our strategy. Some examples of these assumptions include successful execution of our strategic growth initiatives and business objectives; continued investment in growth businesses; and continued re-prioritization of investment towards enterprise solutions. Long term revenue growth objectives by business segment are organic revenue CAGRs (segment revenue excluding acquisitions and divestitures in comparative periods) based on certain assumptions and expected performance over time.



*Organic compound annual growth rate (CAGR), see discussion under "Caution Regarding Forward-Looking Information".

Our business is organized into the following areas:

Capital formation: Our exchanges are integral to the efficient operation of the capital markets. We continually support the capital markets community by providing companies of all types and at all stages of development with access to equity capital, while also providing market oversight to ensure market integrity.

Lines of business include Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV) listing and issuer services, and TSX Trust (TMX Group's transfer agency and corporate trust services business) which includes AST Canada (acquired August 12, 2021, see discussion under *Initiatives and Accomplishments - Capital Formation - AST Canada transaction*).

Equities and fixed income trading and clearing: Operate fair and transparent markets, with innovative, efficient and reliable platforms for equities and fixed income trading and clearing.

Lines of business include TSX, TSXV and TSX Alpha Exchange (Alpha) equities trading operations, Shorcan Brokers Limited (Shorcan) fixed income trading and Canadian Depository for Securities Limited and its subsidiaries including CDS Clearing and Depository Services Inc (CDS Clearing) and CDS Innovations (collectively, CDS).

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[2] The "Financial Objectives" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainties related to such statements.

[3] Adjusted EPS and adjusted EPS CAGR are non-GAAP ratios, see discussion under "Non-GAAP Measures" for more information..

Derivatives trading and clearing: Accelerating new product creation and leveraging our unique market position to meet the increasing demand for derivative products both in Canada and globally.

Lines of business include Montréal Exchange (MX) and Canadian Derivatives Clearing Corporation (CDCC).

Global solutions, insights and analytics: Deliver equities data, index data as well as integrated data sets to fuel high-value proprietary and third party analytics which help clients make better trading and investment decisions. We also provide solutions to European and global wholesale energy markets for price discovery, trade execution, post-trade transparency and straight through processing.

Lines of business include TMX Datalinx (information services), Co-location, and *Trayport* (acquired December 14, 2017) which includes Vienna-based *VisoTech* (acquired May 15, 2019) and Germany-based *Tradesignal* (acquired June 1, 2021, see discussion under *Initiatives and Accomplishments - GSIA - Tradesignal transaction*).

Sustainability and Environmental, Social and Governance (ESG)

Integrating sustainability and ESG factors with our overall enterprise strategy goes hand in hand with our mission and Client First Vision.

In May 2021, we issued our second ESG report. The goal of the report is to inform all of our stakeholders, including current shareholders and potential investors, of our progress in incorporating ESG matters into our corporate strategy, process and operations.

In December 2021, we introduced our first Task Force on Climate-related Financial Disclosures (TCFD) report that presents our efforts towards implementing the recommendations of the TCFD framework.

We continue to evaluate our role in Canadian capital markets in a transitioning economy and to engage with the industry as well as our stakeholders as we integrate these factors into the way we do business. We look to:

- Lead by example by building a strong foundation of our own sustainable company practices and reporting
- Engage with the market and support our issuer base and clients through a transitioning economy
- Support transition finance with our products and services

OUR RESPONSE TO COVID-19 PANDEMIC

The global pandemic first declared in 2020 has altered the world and the way we operate. Its impact on individuals, communities, businesses, and the political landscape is far reaching. In these extraordinary times, we rely on our core organizational values, enterprise strategy, risk management practices and our talented people to guide us through this rapidly changing and complex situation. Powered by the dedicated and collaborative efforts of employees, the vast majority of whom are working remotely, we continue to focus our efforts on our client first vision to be an indispensable solution for companies around the world to raise capital and the preferred destination for traders and investors to prosper. In 2021, we continued to experience increased demand on our systems and services during the pandemic with increased activity, trading, messaging levels and client support demands. Our team rose to the challenge and ensured the market and our participants were effectively supported during these challenging times.

The health and safety of our people, our clients and the entire capital markets community has been and continues to be our top priority in this time of great uncertainty, and consistently guides the decisions that we make. We deployed various IT and human resources tools to support both our employees working from home as well as our limited recovery staff who are on site performing critical duties. Today, over 90% of our workforce continues to work

remotely, and will continue to do so until government and public health officials indicate remote work is no longer required. TMX Group continues to reassess our return to office date as new information becomes available.

We continue to focus on resiliency and demonstrate this through ongoing resiliency testing during this global pandemic, including our latest Disaster Recovery exercise completed in October 2021. As we look into the future, despite prevailing uncertainty looming in our operating environment, TMX Group remains firmly focused on serving our clients with excellence, providing our markets with continuity, and executing against our global growth strategy.

INITIATIVES AND ACCOMPLISHMENTS

Capital Formation[4]

AST Canada transaction [5]

On August 12, 2021, we completed the acquisition of AST Investor Services Inc. (Canada), and its subsidiary AST Trust Company (Canada) (collectively, AST Canada), a provider of transfer agency, corporate trust and related services for $164.6 million in purchase consideration, which includes $30 million of cash in their businesses. On September 1, 2021, AST Trust Company (Canada) and TSX Trust Company amalgamated to form a newly amalgamated corporation continued as TSX Trust Company. AST Investor Services Inc. (Canada) was renamed as TMX Investor Solutions Inc.

The transaction is expected to enhance the competitive position of our TSX Trust business by adding a complementary portfolio of transfer agency, equity plan solutions, corporate trust, structured finance, and proxy-related services. By broadening the scope and scale of its service offerings, TSX Trust has strengthened its ability to serve the evolving needs of customers across the marketplace and into the future. From a strategic perspective, this transaction increases the portion of our revenue from recurring sources. Had we acquired AST Canada on January 1, 2021, TMX Group's portion of recurring revenue for the year ended December 31, 2021 would have been approximately 50%.[6]

Summary financial details:

- The cash consideration for the acquisition of AST Canada was satisfied from net proceeds from the TMX Group debenture offering which closed on February 12, 2021, and excess cash.
- AST Canada's revenue for the twelve months ended June 30, 2021 was approximately $39 million, net loss was approximately $3 million, and adjusted earnings before interest, taxes, depreciation and amortization (adjusted EBITDA)[7] were approximately $11 million (net loss of approximately $3 million, deduct income tax benefit of $2 million, and add depreciation and amortization costs of $9 million, and indirect allocation from the parent company of $7 million).[8] Adjusted EBITDA excludes indirect allocation from the parent company, which are indirect costs that are allocated from AST to AST Canada including legal fees and consulting fees.

[4] The "Capital Formation" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainty related to such statements.
[5] Financial information for AST Canada for the year ended June 30, 2021 and for the nine months ended September 30, 2021, is unaudited, and derived from historical financial information and financial statements from AST Canada.
[6] Recurring revenue streams include substantially all of Global Solutions, Insights and Analytics, as well as sustaining fees, custody fees, transfer agency fees, and other access / subscription based revenues.
[7] Adjusted EBITDA is a non-GAAP measure, see discussion under "Non-GAAP Measures" for more information.
[8] See Press Release TMX Group Announces Agreement to Acquire AST Trust Company (Canada) published September 25, 2020.

- AST Canada's unaudited revenue for the twelve months ended June 30, 2020 was approximately $46.5 million (including $8.0 million of margin income), net loss of approximately $0.3 million, and adjusted EBITDA[9] was $11.6 million (net loss of approximately $0.3 million, deduct income tax benefit of $0.4 million, depreciation and amortization costs of $8.6 million, and indirect allocation from the parent company of $3.7 million).[10] Adjusted EBITDA excludes indirect allocation from the parent company, which are indirect costs that are allocated from AST to AST Canada including legal fees and consulting fees.

- We incurred acquisition and related costs of approximately $4.8 million, of which $1.7 million was incurred in 2020 and $3.1 million in 2021. The total acquisition costs was $0.8 million higher than our estimate of $4.0 million.

- We expect integration costs of approximately $20.0 million over the twelve month period from September 1, 2021 to August 31, 2022; primarily related to information technology; and expect total revenue and technology cost synergies of approximately $8.0 million, which will be substantially achieved by 2024. We expect at least $2.0 million of these cost synergies in 2022. In 2021, we spent approximately $3.4 million in integration costs. The transaction is expected to have a positive impact on TMX Group's adjusted earnings per share in 2022.[11]

- We have entered into a transitional services agreement (TSA) with AST for the twelve month period from September 1, 2021 to August 31, 2022. The total expected cost related to the TSA is approximately $6.0 million, incurred evenly over the term of the TSA. In 2021, we spent approximately $2.0 million related to the TSA.

Sustainable Bonds Portal

In March 2021, we embarked on an initiative to post Sustainable Bonds to trade on the TSX. The initiative, pending regulatory reporting requirements, looks to offer governments and quasi-governmental entities a means to expand their investor reach by making the bonds readily available on TSX to retail investors.

In May 2021, we launched the Sustainable Bonds Portal, a centralized repository for institutional and retail investors to access sustainable bonds information from Canadian issuers. The portal supports sustainable bond issuers' ability to provide markets with impact and performance reporting associated with an issuance.

Equities and Fixed Income Trading and Clearing[12]

Market On Close (MOC) Modernization

In October 2020, TSX published and filed for regulatory approval a proposed new Closing Auction model, the first substantive changes to the MOC since its introduction in 2004. The MOC Modernization proposal was developed after two years of extensive consultation from market participants unified in supporting a best-in-class closing auction that effectively meets the liquidity and execution needs of Canadian and global investors. In October 2021, we launched the new TSX MOC facility which will provide an improved trading experience for market participants, better serve stakeholder needs for enhanced liquidity at the close, and enhance efficiencies in determining closing prices in Canada.

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[9] Adjusted EBITDA is a non-GAAP measure, see discussion under "Non-GAAP Measures" for more information.

[10] Revenue and adjusted EBITDA for the year ended June 30, 2020 are compilations of financial information provided to us by AST Trust Company (Canada). This information is unaudited and may not be prepared in accordance with IFRS for public companies.

[11] Adjusted earnings per share is a non-GAAP ratio. see discussion under "Non-GAAP Measures" and "Caution Regarding Forward-Looking Information" for more information.

[12] The "Equities and Fixed Income Trading & Clearing" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainty related to such statements.

TSX DRK

The expansion of TSX's Dark Trading offering continued throughout 2020 and 2021 with the successful introduction of new pricing programs and targeted sales campaigns. As a result, TSX DRK made substantial gains in this market segment, increasing its continuous trading market share in TSX listed securities from 18% in 2019 to 27% in 2021. Planned expansion initiatives and investments to increase user adoption, introduce new offerings, and support continued market share growth are expected to be added. In November 2021, we launched Conditional Orders to further build on our TSX DRK strategy.

Derivatives Trading and Clearing [13]

Montreal Exchange

In October 2018, MX launched extended trading hours from the previously 6:00 a.m. ET open to a 2:00 a.m. ET open. Initially, this included MX's interest rate products[14]. Beginning in February 2019, MX offered clients the ability to also trade its equity index futures[15] in these extended hours. In September 2021, MX launched extended trading hours in Asia, offering investors in Asia-Pacific region the opportunity to manage their exposure to Canadian markets and execute cross-market strategies in their local time. Trading sessions open at 8:00 p.m. (t-1) ET (with a 7:30 p.m. (t-1) ET pre-open) and close at 4:30 p.m. ET.

For the year ended December 31, 2021, volumes during extended trading hours represented approximately 6% of total volumes in these products.

In November 2021, MX relaunched the 30-year Government of Canada bond futures (LGB) as part of MX's continued efforts to increase the number of liquid points on the Canadian listed yield curve.

BOX

On January 3, 2022, BOX Holdings Group LLC (BOX) executed a unit buy-back with certain members which resulted in TMX Group's economic and voting interest increasing from 42.6% and 45.5%, to 47.9% and 51.4%, respectively. As a result, effective January 3, 2022, TMX Group obtained control over BOX and commenced consolidating the entity. The transaction shall be accounted for as a business combination in accordance with IFRS 3, *Business Combinations*. TMX Group remeasured its previously held interest, resulting in a non-cash gain currently estimated to be approximately $180.2 million, which will be recognized in our Q1/22 results.

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[13] The "Derivatives Trading and Clearing" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainty related to such statements.

[14] BAX - Three-Month Canadian Bankers' Acceptance Futures, CRA - Three-month Canadian Overnight Repo Rate Average (CORRA) Futures (launched June 12, 2020), CGZ - Two-Year Government of Canada Bond Futures, CGF - Five-Year Government of Canada Bond Futures and CGB - Ten-Year Government of Canada Bond Futures.

[15] SXF - S&P/TSX 60 Index Standard Futures and SXM - S&P/TSX 60 Index Mini Futures.

Global Solutions, Insights and Analytics (GSIA)[16]

Trayport

Asset Class and Geographic Expansion

In Q1/21, Trayport expanded the use of its Joule platform in refined oil following the signing of an agreement with a leading global inter dealer broker to use Trayport technology. We are now in the process of rolling this out to trading desks in London and Singapore. In Q3/21, ten brokers used Trayport's Joule platform to display pricing for refined oil.

Algorithmic Trading and Data Analytics Products

The trend of algorithmic power trading in European intraday markets continues to grow.

This algorithmic trading trend is also developing across the rest of the markets Trayport serves in Europe. Trayport has responded to this demand by launching a Data Analytics product to store and analyze customers' data sets, which is now live. Trayport is also expanding its AutoTrader algorithmic design and execution product to cover these additional forward and futures markets. Together, these products provide an end to end solution for customers to design, back test, and execute algorithmic strategies.

Tradesignal transaction

In June 2021, Trayport Limited completed the acquisition of Tradesignal, a producer of rule-based trading and technical chart analysis software based in Germany. In addition to selling enhanced charting and analytics capabilities to its client base, the acquisition will provide a strategic link between Trayport's algo trading and analytics offerings.

Voluntary Carbon Trading

In December 2021, Trayport announced The Voluntary Climate Marketplace (TVCM) operated by IncubEx, which will offer best-in-class market access to trade voluntary carbon offsets and will be tradable through Trayport's Joule platform. In December 2021, TMX purchased voluntary carbon credits on Trayport's Joule platform and achieved carbon neutrality for 2020.

TMX Datalinx

Co-location Services

To meet client demand, we planned to increase capacity at our co-location facility by approximately 25%, or 50 cabinets. In Q1/21, we made 15 additional cabinets available which helped alleviate some pent up demand from clients. In August 2021, we completed the 25% expansion of our facility.

The following indices were launched in 2021:

S&P/TSX 60 VIX Index

The S&P/TSX 60 VIX Index, launched in April 2021, is the only Canadian implied volatility measure, and replaces the VIX index that was retired in early 2020. The S&P/TSX 60 VIX Index approximates the 30-day implied volatility of the Canadian market, based on activity in the options market.

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[16] The "Global Solutions Insights and Analytics" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainty related to such statements.

S&P/TSX Composite Tilt ESG Index

The S&P/TSX Composite Tilt ESG Index, launched in October 2021, includes composite constituents while increasing weights of higher ESG score constituents relative to the base index, and decreasing the weights of lower ESG score constituents.

Update on Modernization of CDS Clearing Platform[17]

The CDS modernization project involves the replacement of other legacy systems at CDS including those related to clearing and settlement, as well as an expanded scope to address entitlement payment systems. In March 2017, we implemented an Issuer Services Program that included a number of fee changes in anticipation of the investment that would be required to modernize the entitlement payments system. We spent $43.8 million up to the end of 2019 on capital expenditures, $27.8 million in 2020 and $21.0 million in 2021. These project costs are included in *Additions to premises and equipment and intangible assets* on the Consolidated Statements of Cash Flows in each of 2019, 2020, and 2021. Overall, we expect to incur between approximately $120 and $135 million in capital expenditures related to the CDS modernization project. We expect to complete this project in 1H/23. We will continue to provide updates on estimates for capital expenditures and timing as this complex project progresses.

Corporate

ESG Reporting

In May 2021, we released our second annual ESG report, detailing our progress in integrating sustainability practices into our corporate strategy, business processes, and investment decisions. Highlights of the report include:

- Our endorsement of the Sustainability Accounting Standards Board (SASB) and a target to incorporate the recommendations of the TCFD in its ESG reporting in 2021.
- Our commitment to purchase carbon credits to offset its GHG emissions and become net-carbon neutral in 2021.
- The establishment of an Employment, Diversity and Inclusion (ED&I) Advisory Council, led by our CEO John McKenzie, to determine TMX Group's long-term ED&I policies, procedures and targets.
- An agreement with IHS Markit to facilitate broader ESG reporting and data distribution for issuers listed on Toronto Stock Exchange and TSX Venture Exchange.

In December 2021, we released our inaugural TCFD Report detailing TMX Group's climate-related risks and opportunities. Highlights of the report include:

- We conducted a climate materiality analysis to identify the climate-related risks and opportunities that could materially impact its strategic and operational objectives.
- We committed to achieving carbon neutrality for 2020 and every year going forward. To reach the climate milestone in 2020, we recently purchased voluntary carbon offsets utilizing Trayport's Joule platform.
- We introduced several products that facilitate ESG investing, including new ESG indices, sustainable ETFs, and ESG derivatives on the Montreal Exchange.

[17] The "Update on Modernization of CDS Clearing Platform" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainties related to such statements.

ORGANIZATIONAL CHANGE

On June 1, 2021, David Arnold joined TMX Group as Chief Financial Officer (CFO). Mr. Arnold is a financial services industry leader and 20-year veteran of CIBC where he held increasingly senior positions in Finance and Administration, most recently as Executive Vice President, Enterprise Programs, Technology and Operations.

On November 1, 2021, Michelle Tran was appointed President, TMX Datalinx reporting directly to Jay Rajarathinam, Chief Operating Officer. Ms. Tran is a 20-year veteran at TMX Group, most recently as Vice President, Sales and Service. Ms. Tran will focus on client-centric innovation and lead the strategic direction of the business including incremental revenue opportunities resulting from new client offerings and potential partnerships to drive market share.

MARKET CONDITIONS AND OUTLOOK[18]

The COVID-19 pandemic has had an unprecedented impact on market and general economic conditions. The rise in retail trading activity we saw at the start of the pandemic in 2020, peaked in Q1/21 and have since returned to pre-pandemic levels. The average CBOE Volatility Index (VIX) was 19.7 in 2021 compared with 29.3 in 2020. Overall, Canadian equities trading volumes were up 13% in 2021 compared with 2020.[19] Across all of our equities markets, overall trading volumes were up 2% in 2021 compared with 2020 with trading volumes on TSX Alpha Exchange (Alpha) and TSX Venture Exchange (TSXV) increasing by 19% and 24%, respectively while trading volumes on Toronto Stock Exchange (TSX) decreased by 10%. In Canadian derivatives trading, the volume of contracts traded on MX was up 29% in 2021 compared to 2020.

On TSX, the total amount of financing dollars raised increased by 27% from 2020 to 2021, and the total number of financings increased by 20% over the same period. On TSXV (including NEX) there was a 66% increase in the total amount of financing dollars raised, while the total number of financings declined 2% in 2021 over 2020.

On January 26, 2022, the Bank of Canada (the Bank) held its target for the overnight rate at ¼ percent, with the Bank Rate at ½ percent and the deposit rate at ¼ percent. The Bank removed its exceptional forward guidance on its policy interest rate. The Bank said the global recovery from the COVID-19 pandemic is strong but uneven. The US economy is growing robustly while growth in some other regions appears more moderate, especially in China due to current weakness in its property sector. Strong global demand for goods combined with supply bottlenecks that hinder production and transportation are pushing up inflation in most regions. As well, oil prices have rebounded to well above pre-pandemic levels following a decline at the onset of the Omicron variant of COVID-19. Financial conditions remain broadly accommodative but have tightened with growing expectations that monetary policy will normalize sooner than was anticipated, and with rising geopolitical tensions. Overall, the Bank projects global GDP growth to moderate from 6¾ % in 2021 to about 3½ % in 2022 and 2023.

The Bank added that the Omicron variant is weighing on activity in the first quarter. While its economic impact will depend on how quickly this wave passes, it is expected to be less severe than previous waves. Economic growth is then expected to bounce back and remain robust over the projection horizon, led by consumer spending on services, and supported by strength in exports and business investment. After GDP growth of 4½ % in 2021, the Bank expects Canada's economy to grow by 4% in 2022 and about 3½ % in 2023.

The Bank also said CPI inflation remains well above the target range and core measures of inflation have edged up since October. Persistent supply constraints are feeding through to a broader range of goods prices and, combined with higher food and energy prices, are expected to keep CPI inflation close to 5% in the first half of 2022. As supply shortages diminish, inflation is expected to decline reasonably quickly to about 3% by the end of this year and then gradually ease towards the target over the projection period. Near-term inflation expectations have moved up, but

[18] The "Markets Conditions and Outlook" section contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainty related to such statements.
[19] Source: IIROC (excluding intentional crosses, includes all Canadian equities).

longer-run expectations remain anchored on the 2% target. The Bank will use its monetary policy tools to ensure that higher near-term inflation expectations do not become embedded in ongoing inflation.[20]

[20] Source: Extracted from Bank of Canada press release, January 26, 2022.

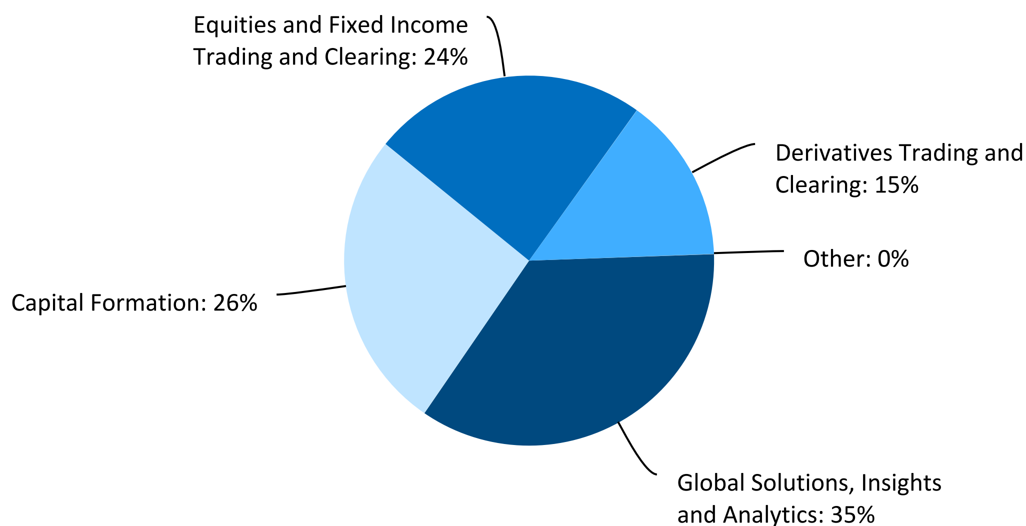
OUR BUSINESS

On the following pages, we provide an overview and description of products and services, strategy and revenue description for each of our segments as outlined below:

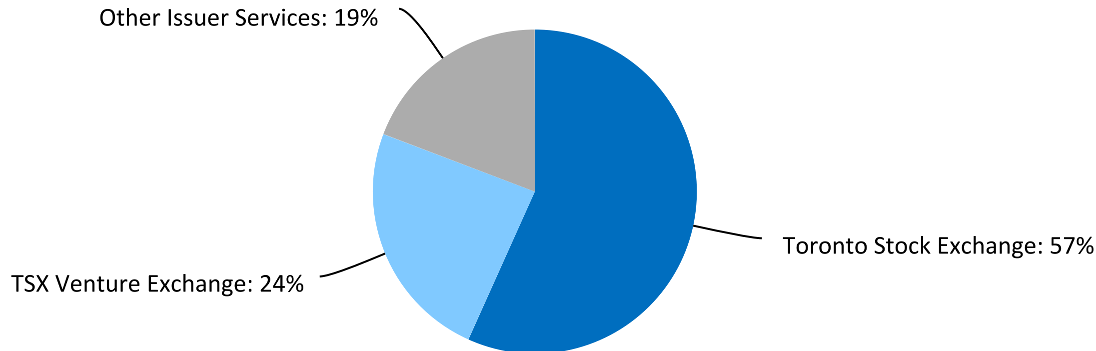
1. Capital Formation
2. Equities and Fixed Income Trading and Clearing
3. Derivatives Trading and Clearing
4. Global Solutions, Insights and Analytics
    i. TMX Datalinx
    ii. Co-location Services
    iii. Trayport

For key statistics related to each business above, please see **Results of Operations**.

TMX 2021 Revenue: $980.7 million



Capital Formation



Overview and Description of Products and Services

Our goal is to provide solutions for corporate clients in need of growth capital and liquidity, and provide investors with a broad range of investment opportunities.

TMX Group operates a unique two-tiered ecosystem, comprised of Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV), to help companies access the public markets, raise capital and provide liquidity to shareholders. TSX is a leading listings venue for established domestic and international issuers. TSXV is the pre-eminent global platform for facilitating venture stage capital formation.

In general, established issuers initially list on TSX through an Initial Public Offering (IPO), by graduating from TSXV, or by seeking a secondary listing (to complement an existing listing on another listing venue). Venture stage companies generally list on TSXV either in connection with an IPO, or through alternative methods such as TSXV's Capital Pool Company program or a reverse takeover. We also operate NEX, a market for issuers that have fallen below the listing standards of TSXV.

Issuers list a number of different types of securities including conventional securities such as common shares, preferred shares, rights and warrants; and a variety of alternative types of structures such as exchangeable shares, debt or convertible debt instruments, limited partnership units, ETFs, and structured products such as investment funds.

We are a global leader in listing small and medium-sized businesses with concentration in resource sector listings and a growing number of innovation companies, including those in the technology, clean technology, renewable energy and life science sectors. In 2021, we welcomed 449 new listings, of which 110 were innovation companies and 49 were international (non-Canadian) companies. Issuers listed on TSX and TSXV raised a combined $56.9 billion in 2021 ($45.9 billion on TSX and $11.0 billion on TSXV).

In addition to our listing facilities, we offer other services to our listed issuers. TSX Company Services is focused on enhancing and expanding our service offering to support the funding, growth, and success of our listed companies. Together with industry leading service providers, we offer services, solutions and resources designed to help our clients reach their corporate objectives. Additionally, we provide ESG reporting best practice information, materials and

educational opportunities for our issuers as well as service offerings to help facilitate companies' ESG disclosures into leading frameworks and standards for investors.

Within Capital Formation is TSX Trust, second by market share, servicing approximately 31% of listed issuers when measured by clients on the TSX, TSXV, and Canadian Securities Exchange (CSE). The business supports over 2,500 equity and debt issuers and private companies with corporate trust, transfer agent, registrar and registered plan services. In August 2021, we acquired AST Canada (see discussion under *Initiatives and Accomplishments - Capital Formation - AST Canada transaction*).

Strategy

- Leveraging our global presence and channel partners to attract international listings across all sectors
- Accelerating growth in targeted sectors (mining, including low-carbon mineral issuers, energy, innovation, including clean technology and renewable energy as well as ETF sectors) where we are uniquely positioned
- Activating new pools of capital (including sustainable investing capital) in Canada and globally
- Accelerating our policy and regulatory advocacy and thought leadership efforts to stimulate investment in the public markets, ease regulatory burdens, and promote fairness for public companies
- Streamlining and digitizing issuer listing processes to enhance the issuer experience and achieve operational excellence
- Driving policy innovation
- Adapting to the evolving needs of public and private companies (across their business lifecycle) and their capital providers by offering new products and services
- Providing products, services and tools for issuers to access growth capital as they transition to a sustainable economy, and provide transparent disclosure
- For TSX Trust, the strategy focuses on three main pillars of growth:
    - Growing from the core - accelerating growth with the acquisition of AST Canada and through product penetration with the expanded product line-up which includes structured finance and equity plan solutions. Under the non-regulated entity of TMX Investor Solutions, we offer ownership Intelligence, asset reunification and AGM services
    - Private markets - continuing to expand the service offering to meet the unique needs of the market including expanding the reach of TMX dealLINX, an automated private placement platform, launched in 2021
    - Corporate, government and infrastructure debt - leveraging the trust license to expand into adjacent markets with recurring revenue and cash balances

Revenue Description

We generate Capital Formation revenue from several fees and services, including:

Initial Listing Fees

TSX and TSXV issuers pay initial listing fees based on the value of the securities to be listed or reserved, subject to minimum and maximum fees. Initial listing fees fluctuate with the value of securities being listed or reserved at the time of listing. Revenues from initial listing fees are deferred over a 12-month period from the date of listing.

Additional Listing Fees

Issuers already listed on one of our equity exchanges pay fees in connection with subsequent capital market transactions, such as the raising of new capital through the sale of additional securities and reserving additional shares to be issued under stock option plans. Additional listing fees are based on the value of the securities to be listed or reserved, subject to minimum and maximum fees and are recognized in the period the transaction occurred.

Sustaining Listing Fees[21]

Issuers listed on one of our equity exchanges pay annual fees to maintain their listing, based on their market capitalization at the end of the prior calendar year, subject to minimum and maximum fees. Sustaining listing fees for existing issuers are billed during the first quarter of the year, recorded as deferred revenue and amortized over the year on a straight-line basis. Sustaining listing fees for new issuers are billed in the quarter after the new listing takes place, based on their market capitalization on the date of listing, and are amortized over the remainder of the year on a straight-line basis.

Fees charged to issuers vary based on the type of issuer (corporate, structured product or ETF).

The aggregate market capitalization of issuers listed on TSX increased from $3.4 trillion at the end of 2020 to $4.2 trillion at the end of 2021. The market capitalization of issuers listed on TSXV including NEX increased from $78.4 billion at the end of 2020 to $102.5 billion at the end of 2021. We estimate that the increase in the total market capitalization on TSX and TSXV should result in an increase in sustaining listing fee revenue of approximately $3.0 million in 2022.

Other Services

TSX Trust has approximately 1,700 transfer agent clients, and revenue is primarily derived from recurring monthly fees, related products, and net interest income on cash balances. Corporate trust fees relate to services for approximately 850 clients that include acting as trustee for debt instruments, depository for takeover bid offers, warrant agent, subscription receipt agent, and agent for voluntary escrow arrangements. TSX Trust launched a new business line in 2020 with its introduction of a Registered Plans custody service to non-bank broker dealers that continues to gather assets. In 2021, TSX Trust launched a virtual AGM product and TMX dealLINX. The additional products and services that have come through the acquisition of AST Canada including Equity Plan Solutions and Structured Finance (current offering is National Housing Act Mortgage Backed Security (NHA MBS) document custody and mortgage title custodian services to NHA MBS Issuers, mortgage lenders and investors) will continue to enhance TSX Trust's competitiveness. Other services are offered through TMX Investor Solutions. TSX Trust benefits from periodic and large cash balances that are held in its trust account, which results in net interest income. Based on CAD and USD year end balances at December 31, 2021, a 25 basis points movement in the interest rate corresponds to approximately $2.7 million of revenue in TSX Trust (including AST Canada). Actual revenue for future periods will also depend on activity in those quarters.

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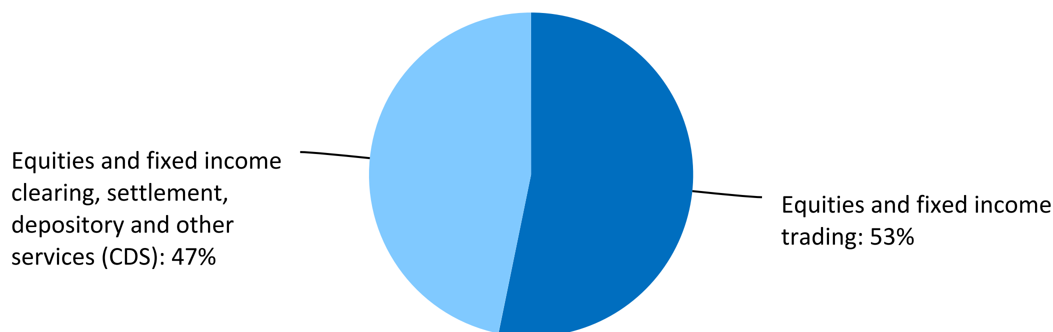
[21] The "Sustaining Listing" section above contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainties related to such statements.

Equities and Fixed Income Trading & Clearing

Year ended December 31, 2021
Equities and Fixed Income Trading and Clearing revenue of $235.9 million



Equities and Fixed Income Trading – TSX, TSXV, Alpha and Shorcan

Overview and Description of Products and Services

We operate innovative, efficient, reliable, high performance platforms for trading and clearing.

Equities Trading

TSX, TSXV and Alpha operate fully electronic exchanges that facilitate secondary trading in TSX and TSXV-listed securities on a continuous auction basis throughout the trading day.

Retail, institutional and other proprietary investors and traders place orders to buy or sell securities through Participating Organizations (POs)/Members of the exchanges. In addition to continuous trading throughout the day, TSX and TSXV also operate opening and closing auctions, which are central sources of liquidity for trading in Canada during those times. The closing auctions also establish the industry benchmark closing price for our listed securities. A post-closing trading session on TSX and TSXV allows for further opportunity to trade at the closing price. Additional trading features and functionalities are offered to accommodate a range of trading strategies and provide flexibility and optionality to clients. Each of TSX, TSXV and Alpha also allow POs to report their internally matched orders, by printing them as crosses on the exchanges at no cost.

Fixed Income Trading

Shorcan acts as an inter-dealer bond broker (IDB) that specializes in the Canadian fixed income marketplace, brokering products that include Government of Canada, provincial, corporate, strip, and mortgage bonds, repurchase agreements (repos) and swaps. Shorcan serves financial institutions that are broker-dealers registered with IIROC and that are CDCC members; the buy-side does not participate. Inter-dealer brokers can be accessed via broker screens that run on desktop computers at a trader's desk or via voice lines.

Strategy

Equities Trading

- Continue to deploy innovative trading features and functionalities aimed at enhancing market efficiency and trading liquidity
- Continue to maintain leading market share

Fixed income Trading

- Maintain market leading position in Canada trading
- Continue to grow our Canadian swaps business

Revenue Description

Equities Trading

Most of the fees on TSX, TSXV and Alpha are volume-based. These fees are applied to traded shares, and in most cases, involve one side of the trade being charged a per share fee and the other side being provided with a per share rebate. The excess of the fee over the rebate represents the exchanges' net fee per share traded. These types of models are intended to incent different types of customers and behaviors. The primary fee structure on TSX and TSXV is a maker-taker model that pays a rebate to the liquidity providing side of the trade so that market participants have an incentive to enter passive orders into the central limit order book, while the liquidity taking side of the trade pays a fee. Alpha supports an inverted pricing model which is intended to provide incentives to take liquidity by providing a rebate, with the liquidity providing side of the trade paying the fee. Regardless of the fee structure applied, trading revenue is recognized in the month in which the trade is executed.

Fixed Income Trading

Shorcan charges broker commissions on both sides of the trade upon execution. Shorcan broker commission varies by different types of instruments and by execution method, voice vs. electronic.

Equities and Fixed Income Clearing, Settlement, Depository and Other Services - CDS

Overview and Description of Products and Services

CDS is Canada's national securities depository, clearing and settlement hub for domestic and cross-border depository-eligible securities. CDS supports Canada's equities, fixed income and money markets and is accountable for the safe custody and movement of securities, the processing of post-trade transactions, and the collection and distribution of entitlements relating to securities deposited by participants.

CDS's domestic clearing and settlement services enable participants to report, confirm or match, reconcile, net and settle exchange and OTC traded equity, debt and money market transactions, as well as derivative transactions in depository-eligible securities (e.g., the processing of rights and warrants and the settlement of exercised options). CDS also offers related services such as buy-ins, risk controls and reporting, and facilitates trading in CDSX (CDS's multilateral clearing and settlement system) eligible securities before they are publicly distributed (trades in these securities settle after public distribution). CDSX is designated by the Bank of Canada as being systemically important, under the Payment Clearing and Settlement Act (Canada).

CDS Depository is accountable for the safe custody and movement of depository-eligible domestic and international securities, accurate record-keeping, processing post-trade transactions, and collecting and distributing entitlements arising from securities deposited by participants.

Other CDS services include, the issuance of International Security Identification Numbers (ISINs), depository eligibility, securities registration as well as entitlement and corporate action (E&CA) event management.

Strategy

TMX Group is implementing a post-trade services strategy to replace the existing clearing, settlement and custody system at CDS. In 2021, the development and internal testing of the system was substantially completed and testing with participants is expected to commence in Q2/22. Under this strategy, TMX Group will continue to invest in modernizing core technology and developing growth opportunities for the business under these main focuses:

- Clearing and Depository: Develop and migrate to an advanced clearing, settlement, and risk management solution, to deliver enhanced client experiences at higher efficiency (see **INITIATIVES AND ACCOMPLISHMENTS - Update on Modernization of CDS Clearing Platform**).
- Global Liquidity Solutions: Provide streamlined access to funding and margining, and continue growth in Repo central-counterparties offering.
- Global Connectivity Solutions: Create access gateways that connect global clients within an increasingly global marketplace such as the CDS-DTCC (The Depository Trust & Clearing Corporation) link and collateral optimization opportunities in conjunction with the CDS participant base and their clients.

Revenue Description

For reported trades, both exchange traded and OTC trades, CDS charges clearing fees to participants on a per trade basis. Clearing fees are recognized as follows:

- Reporting fees are recognized when the trades are delivered to CDS.
- Netting/novation fees are recognized when the trades are netted and novated.

Other clearing-related fees are recognized when services are performed.

For those trades that are netted in Continuous Net Settlement (CNS), settlement fees are charged on the basis of the number of netted trades settled. Settlement fees for those trades that are not netted (i.e., trades that are settled individually on a trade-for-trade (TFT) basis) are charged on a per transaction basis. Settlement-related fees are recognized when the trades are settled.

Depository fees are charged per transaction and custody fees are charged based on a daily average of volume (i.e., number of shares held for equity securities and nominal value held for fixed income securities) and positions held. Depository fees are charged for custody of securities, depository related activities, and processing of entitlement and corporate actions, and are recognized when the services are performed.

International revenue consists of revenue generated through offering links as channels to participants to effect cross-border transactions and custodial relationships with other international organizations. The related fees are recognized as follows:

- Fees are charged to participants based on participant usage of National Securities Clearing Corporation (NSCC) and Depository Trust Company (DTC) services. Participants are sponsored into NSCC and DTC services via the New York Link service and the DTC Direct Link service respectively.
- Custodial fees and other international services related revenues are recognized when the services are performed.

Issuer services fees are fees levied to issuers and/or their agents for ISIN, and entitlements and corporate actions management services for which they benefit.

50:50 Rebates on Core CDS Services

For the period starting November 1, 2012 and subsequent fiscal years starting on January 1, 2013, CDS shares with participants, on a 50:50 basis, any annual increases in revenue on clearing and other core CDS Clearing services, as compared with revenues in fiscal year 2012 (the 12-month period ending October 31, 2012). Beginning January 1, 2015 and subsequent years, CDS also shares with Participants, on a 50:50 basis, any annual increases in revenue applicable to the New York Link/Depository Trust Company Direct Link Liquidity Premium. Rebates are paid on a pro rata basis to participants in accordance with the fees paid by such participants for these services. Effective August 1, 2021, as a result of New York Link fee change, the pass through liquidity facility fees are no longer subject to 50:50 rebate.

Additional Rebates

In addition, CDS must rebate an additional $4.0 million annually to participants in respect of exchange clearing services for trades conducted on an exchange or alternative trading systems (ATS).

In December 2019, CDS filed a proposal to make two changes to the existing fee model. The first and most significant change was the proposal to modify its fee model by eliminating the rebates that are paid annually to participants based on their respective use of CDS services. The second change was the elimination of network connectivity fees currently paid by participants.

CDS published an amended proposal In Q1/21, which included two changes to the original application:

- CDS is proposing to cease charging for reports that it transmits to participants. These report fees generated $1.2 million of revenue in 2021. The elimination of the report fees are in addition to the originally proposed elimination of network connectivity fees which were $2.0 million in 2021.
- CDS is proposing to modify the effective date of the proposed rebate elimination to coincide with the Modernization of Clearing Platforms launch which is expected to be in 1H/23 (See **Initiatives and Accomplishments - Update on Modernization of CDS Clearing Platform**).

The elimination of the rebates is being proposed to partially offset the significant investment required to modernize CDS technology, and to ensure adequate funding of ongoing future technology upgrades, while enabling us to earn an appropriate rate of return on our capital investments. The elimination of network connectivity fees and report fees is intended to enable participants to obtain a further netting benefit as against the impact of the rebate elimination.

For the five-year period from 2017 to 2021 inclusive, CDS rebated an average of approximately $12.1 million annually. In 2021, CDS rebated $18.3 million reflecting increased volumes.

The above proposals are all subject to further public comment and regulatory approval.

Derivatives Trading and Clearing

Derivatives Trading and Clearing – MX, CDCC and BOX

Overview and Description of Products and Services

Our domestic financial derivatives trading is conducted through MX, Canada's standardized financial derivatives exchange. Headquartered in Montréal, MX offers trading in interest rate, index, equity and currency derivatives. BOX is an equity options market located in the U.S and as at December 31, 2021, MX held approximately 42.6% ownership interest in BOX.

Derivatives - Trading

MX

MX offers interest rate, index, equity and currency derivatives to Canadian and international market participants. MX connects participants to its derivatives markets, builds business relationships with them and works with them to ensure that the derivatives offerings meet investor needs. In 2021, approximately 53% of MX's volume was represented by four futures contracts – the Three-Month Canadian Bankers' Acceptance Futures contract (BAX), the 5-Year Government of Canada Bond Futures contract (CGF), the 10-Year Government of Canada Bond Futures contract (CGB) and the S&P/TSX 60 Standard Futures contract (SXF) – with the balance largely represented by our equity and ETF options market.

BOX

BOX (BOX Holdings Group LLC and BOX Exchange LLC) is an all-electronic equity derivatives market and is one of a number of equity options markets in the U.S. All BOX trade volume is cleared through the Options Clearing Corporation. See discussion under *Initiatives and Accomplishments - Derivatives Trading and Clearing - BOX*.

Derivatives – Clearing

CDCC acts as the central clearing counterparty for exchange-traded derivative products in Canada and for a growing range of customized financial instruments. CDCC's role is to ensure the integrity and stability of the markets that it supports. CDCC provides central clearing counterparty (CCP) clearing and settlement services for all MX transactions and certain over-the-counter (OTC) derivatives, including fixed income repurchase and reverse repurchase agreement (REPO) transactions. In addition, CDCC is the issuer of options traded on MX markets.

CDCC is an integrated central clearing counterparty in North America that clears and settles futures, options and options on futures. The Canadian Derivatives Clearing Service (CDCS) operated by CDCC has been designated by the Bank of Canada as being a systemically important financial market infrastructure under the Payment Clearing and Settlement Act (Canada).

CDCC generates revenue from clearing and settlement, as well as from options and futures exercise activities (see **Revenue Description** section below).

Derivatives – Regulatory Division

MX is recognized by the Autorité des marchés financiers (AMF) as a Self-Regulatory Organization (SRO) that has responsibility for maintaining the transparency, credibility and integrity of the exchange-traded derivatives market in Canada. MX's Regulatory Division oversees the regulatory functions. It is responsible for the regulation of its markets and its trading participants.

The Regulatory Division operates as a separate and independent unit of MX. It is subject to the oversight of MX's Special Committee – Regulatory Division. The Special Committee – Regulatory Division, which is appointed by the Board of Directors of MX, is composed of a majority of independent members, none of whom is a member of the Board of Directors of MX or CDCC. The Regulatory Division operations are self-funded and are carried out on a not-for-profit basis.

The Regulatory Division generates revenue from regulatory fees principally comprised of market surveillance fees collected by MX on behalf of its Regulatory Division. Market regulation fees are recognized in the month in which the services are provided.

Any surplus in the Regulatory Division must be, subject to the approval of the Special Committee – Regulatory Division, redistributed to MX's approved participants and any shortfall must be made up by a special assessment by MX's participants or by MX upon recommendation of the Special Committee – Regulatory Division. Regulatory fines are accounted for separately from regulatory fees revenues. The regulatory fines can be used only for specifically approved purposes, such as educational initiatives.

Strategy

MX sales and business development efforts will focus on:

- Continuation of global expansion through trading hours and access expansion
- Introduction of new client-focused products and services with new offerings to unlock the yield curve and further build out the equities derivatives complex

CDCC strengthens and supports Derivatives markets growth with trusted, deep post-trade capabilities. Enhancements of CDCC's products and services will focus on:

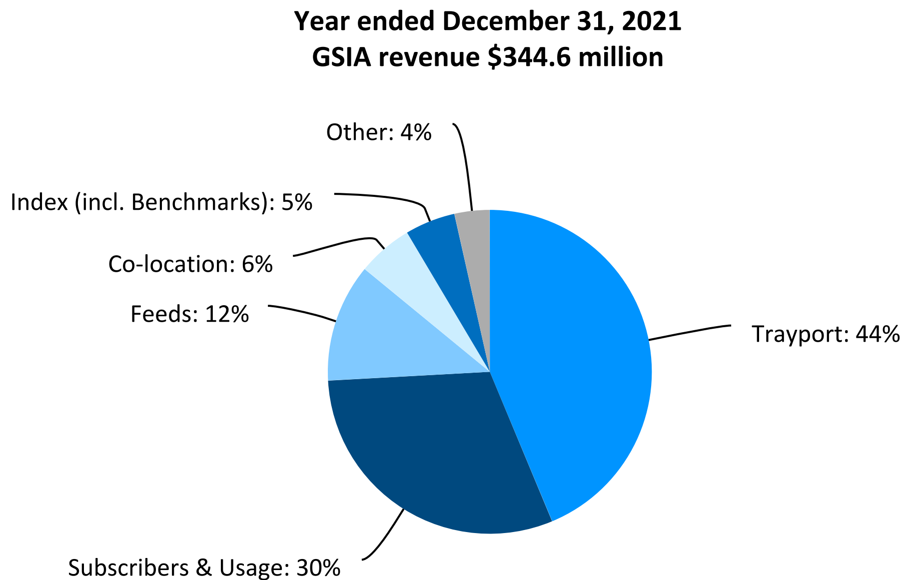
- Supporting a vertically-integrated introduction of new derivatives products and services
- Providing efficient international access to a global pool of traders and asset owners
- Upgrading operational, risk and regulatory compliance capabilities
- Complementing the Derivatives ecosystem with an expanded REPO facility

Revenue Description

Those who trade on MX are charged fees for buying and selling derivatives products on a per transaction basis, determined by factors that include contract type and volume of contracts traded. Since MX trading fee rates are charged on each transaction based on the number of contracts included in each transaction, MX trading revenue is largely correlated to the volume of contracts traded on the derivatives market, but may be impacted by variations in client mix and product mix. Derivatives trading revenue is recognized in the month in which the trade is executed.

CDCC clearing members (Clearing Members) pay fees for clearing and settlement, including OTC fixed income and REPO transactions, on a per transaction basis. Fees for fixed income transactions are based on the size and term of the original agreement. Clearing Members are also eligible for a revenue sharing arrangement based on annual cleared volumes of REPO transactions. Clearing and settlement revenues other than for REPO transactions are correlated to the trading volume of such products and therefore fluctuate based on the same factors that affect our derivatives trading volume. Revenue is recognized as performance obligations are satisfied; this occurs within a short period of time. Clearing revenue for fixed income REPO agreements is recognized on the novation date of the related transaction.

Global Solutions, Insights, and Analytics (GSIA)



Overview and Description of Products and Services

We deliver data to fuel high-value proprietary and third party analytics to help clients make better trading and investment decisions, and provide solutions to European wholesale energy markets for price discovery, trade execution, post-trade transparency, and post-trade straight through processing.

TMX Datalinx

Real-Time Equity Market Data Products – TSX and TSXV Level 1 and Level 2 and Alpha Feeds

Trading activity on TSX, TSXV and Alpha produces a stream of real-time data reflecting orders and executed transactions. This stream of data is supplemented with value-added content (e.g. dividends, earnings) and packaged by TMX Datalinx, our information services division, into real-time market data products and delivered to end users directly or via Canadian and global redistributors that sell data as feeds and for desktop product use. Our market data is available globally through a large number of network carriers and extranets.

We offer our subscribers Level 1, and Level 2 real-time services for TSX, TSXV and Alpha. Level 1 provides trades, quotes, corporate actions and index level information. Level 2 provides a more in-depth look at the order book and

allows distributors to obtain Market Book for TSX, TSXV and Alpha. Market Book is an end-user display service that includes Market-by-Price, Market-by-Order and Market Depth by Broker for all committed orders and trades.

We also provide market participants with low-latency access to real-time Level 1 and Level 2 market data consolidated to include all domestic equities marketplaces, by way of our TMX Information Processor Consolidated Data Feed (CDF), Canadian Best Bid and Offer (CBBO), Consolidated Last Sale (CLS), and Consolidated Depth of Book (CDB) services. Our Information Processor mandate from securities regulators was approved in June 2018 for an additional four year period.

Real-Time Derivative Market Data Products

We also derive data revenue from MX. Similarly to equities markets, we distribute MX real-time Level 1, and Level 2 trading data to market participants on a global basis directly and through data distributors.

Historical, Online, and Other Market Data Products

Historical market data products include market information such as historical tick data, official market statistics and close prices and corporate information such as dividends and corporate actions used in research, analysis and trade clearing, including via TMX Analytics product suites to enable increased usability for clients.

Equities and Derivatives - Index Products

We have an arrangement with S&P Dow Jones Indices (S&P DJI) under which we share license fees received from organizations that create products, such as mutual funds and ETFs, based on the S&P/TSX indices[22]. In general, these license fees are based on a percentage of funds under management in respect of these proprietary products. The multi-year Index Operation and License Agreement between TSX Inc. and S&P DJI covers the creation and publication of all S&P/TSX indices[22], while also providing MX with the rights to list futures and options on the S&P/TSX indices[22].

Enterprise non-professional (non-pro) fee discount program

Under this program we introduced tiered discounts for clients based on the total amount spent on all non-pro TSX and TSXV products and a fee cap after a specific spend limit has been reached. As of December 31, 2021, we have 12 clients in the program including the six largest Canadian banks.

TMX Datalinx Xpress

TMX Datalinx Xpress is our new approach to market data audits. The Xpress program was designed to ensure that the clients and TMX Group have a common ongoing understanding around data feed usage, pricing and policies, and to ensure that the administration of the prior approval, contracts, entitlements, reporting, and billing are all completed as effortlessly as possible. After the introduction of TMX Datalinx Xpress in 2019, this optional program now has over 200 participants.

Co-location Services

We provide co-location services to a broad range of domestic and international market participants. Our co-location services clients benefit from stable, low-latency access to TSX, TSXV, Alpha, and MX trading engines and market data feeds, as well as access to other capital market clients, financial content providers, and technology providers.

[22] The S&P/TSX indices are a product of S&P Dow Jones Indices LLC ("SPDJI") and TSX Inc. ("TSX"). Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC and TSX® is a registered trademark of TSX.

Trayport

Trayport is the primary connectivity network and data and analytics platform for the European wholesale energy markets. Trayport's solutions provide price discovery, trade execution, post-trade transparency, and post-trade straight through processing.

Strategy

TMX Datalinx

- Go to market with innovations in product pricing and packaging and secure multiple-year pricing agreements
- Expand our suite of multi-asset class, real time and historical data and analytics products
- Capture the global addressable market for TMX Group content and products
- Provide new distribution platforms for TMX Group proprietary content

Trayport

Trayport intends to focus on capitalizing on four macro themes in the global energy markets that present growth opportunities in both new markets and in new services to existing clients:

- Leverage increasing demand for data and analytics, and provide a new analytic interface and new applications giving clients the ability to mine critical data sets
- Provide enhanced execution, data and analytics to both new and existing clients globally who need to access developing gas markets. Trayport clients will have one of the most complete views and trading access to the rapidly growing global gas market
- Leverage new technologies to drive automation and efficiency as business processes become digitized. This will enable Trayport to deliver increased value along the full trade lifecycle by increasing data and analytics tools available for OTC markets and facilitating broker expansion into new asset classes and geographies
- The rise of renewable energy sources is having an increasing impact on energy generation and trading. Trayport will help clients meet the increasing demand in spot power and gas markets with new trading tools, services and products

Revenue Description

TMX Datalinx

Subscribers generally pay fixed monthly rates for access to real-time streaming data, which differ depending on the depth of information accessed. In addition to streaming data, many individual investors consume real-time quote data, for which we charge on a per quote basis. We charge market data vendors and direct feed clients a fixed monthly fee for access to data feeds.

Real-time market data revenue is recognized based on usage as reported by customers and vendors, less a provision for sales allowances from the same customers. Other Global Solutions, Insights and Analytics revenue is recognized when the services are provided.

Generally, we sell historical data products for a fixed amount per product accessed. Fees vary depending on the type of end use.

Co-location Services

Subscribers to TMX Group's co-location services, pay a fixed monthly fee depending on the number of cabinets and other related services they receive. Co-location services are normally contracted for a period of one to five years.

Trayport

Trayport subscribers pay a monthly rate for access to the platform. While some customers are on multi-year contracts, the average term is about one year.

In 2021, approximately 45% of our GSIA (excluding Trayport) revenue was billed in U.S. dollars, and approximately 90% of our Trayport revenue was billed in British Pound Sterling. We do not currently hedge this revenue and therefore it is subject to foreign exchange fluctuations. (For details, see **Financial Risk Management - Market Risk - *Foreign Currency Risk*.**)

Non-GAAP Measures

Adjusted earnings before interest, taxes, depreciation and amortization for AST Canada, and adjusted net income are non-GAAP measures[23], and adjusted earnings per share, adjusted diluted earnings per share, and adjusted earnings per share CAGR are non-GAAP ratios[24], and do not have standardized meanings prescribed by GAAP and are, therefore, unlikely to be comparable to similar measures presented by other companies.

Management uses these measures, and excludes certain items, because it believes doing so provides investors a more effective analysis of underlying operating and financial performance, including, in some cases, our ability to generate cash. Management also uses these measures to more effectively measure performance over time, and excluding these items increases comparability across periods. The exclusion of certain items does not imply that they are non-recurring or not useful to investors.

We present adjusted earnings per share, adjusted diluted earnings per share, and adjusted net income to indicate ongoing financial performance from period to period, exclusive of a number of adjustments as outlined under the heading "Adjusted Net Income and Adjusted Earnings Per Share Reconciliation for 2021 and 2020".

We have also presented adjusted earnings before interest, taxes, depreciation and amortization for AST Canada for the twelve months ended June 30, 2020 and 2021 to indicate financial performance, exclusive of pre-acquisition indirect allocations (indirect corporate costs including legal fees and consulting fees) from parent company for AST Canada.

We have also presented long term adjusted EPS CAGR as a financial objective which is the growth rate in adjusted diluted earnings per share over time, exclusive of adjustments that impact the comparability of adjusted EPS from period to period, including those outlined under the heading "Adjusted Net Income and Adjusted Earnings Per Share Reconciliation for 2021 and 2020". The adjusted EPS CAGR is based on the assumptions outlined under the heading "Caution Regarding Forward Looking Information - Assumptions related to long term financial objectives".

[23] As defined in National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure.
[24] As defined in National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure.

Year ended December 31, 2021 (2021) Compared with Year ended December 31, 2020 (2020)

The information below reflects the financial statements of TMX Group for 2021 compared with 2020.

(in millions of dollars, except per share amounts)	**2021**	2020	**$ increase**	**% increase**
Revenue	**$980.7**	$865.1	$115.6	13%
Operating expenses	**489.5**	449.2	40.3	9%
Income from operations	**491.2**	415.9	75.3	18%
Net income	**338.5**	279.7	58.8	21%
Adjusted net income[25]	**401.2**	334.9	66.3	20%
Earnings per share				
Basic	**6.03**	4.96	1.07	22%
Diluted	**5.99**	4.91	1.08	22%
Adjusted Earnings per share[26]				
Basic	**7.14**	5.93	1.21	20%
Diluted	**7.10**	5.88	1.22	21%
Cash flows from operating activities	**441.4**	412.2	29.2	7%

Net Income and Earnings per Share

Net income in 2021 was $338.5 million, or $6.03 per common share on a basic and $5.99 per common share on a diluted basis, compared with a net income of $279.7 million, or $4.96 per common share on a basic and $4.91 on a diluted basis, for 2020. The increase in net income reflected an increase in income from operations of $75.3 million. The increase in income from operations from 2020 to 2021 was driven by an increase in revenue of $115.6 million, which included $13.7 million related to AST Canada (acquired August 12, 2021), slightly offset by an increase in operating expenses of $40.3 million. The increase in operating expenses included approximately $21.9 million of expenses included in 2021 related to AST Canada, including $2.0 million related to amortization of acquired intangibles (3 cents per basic and diluted share), $2.0 million related to the TSA, acquisition and related costs of $3.1 million (5 cents per basic and diluted share), as well as integration costs of $3.4 million (4 cents per basic and diluted share). In 2021, we also incurred a $19.6 million (35 cents per basic and diluted share) increase in income tax expenses relating to the previously announced increase in the U.K. corporate income tax rate.

These increases in operating expenses were somewhat offset by $12.4 million (16 cents per basic and diluted share) of net litigation settlement costs in 2020. We also incurred $1.7 million (3 cents per basic and diluted share) in acquisition and related costs related to AST Canada in 2020. In 2021, there was a $3.9 million reduction to income tax expenses related to TMX Atrium Wireless (sold April 2017), including a $2.9 million (5 cents per basic and diluted share) reversal of a deferred tax asset write-off from 2017. There was also an increase in our share of income from BOX partially offset by higher net finance cost. The increase in earnings per share was also partially attributable to a decrease in the number of weighted average common shares outstanding from 2020 to 2021.

[25] Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".
[26] Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

Adjusted Net Income[27] and Adjusted Earnings per Share[28] Reconciliation for 2021 and 2020

The following tables present reconciliations of net income to adjusted net income and earnings per share to adjusted earnings per share. The financial results have been adjusted for the following:

1. The amortization expenses of intangible assets in 2020 and 2021 related to the Maple transaction (TSX, TSXV, MX, CDS, Alpha, Shorcan), TSX Trust, Trayport (including Visotech and Tradesignal), and AST Canada; and is a component of *Depreciation and amortization expenses*.

2. An increase in deferred income tax liabilities in 2020 and 2021 relating to a change in the U.K. corporate income tax rate effective April 1, 2023. This increase in deferred income tax liabilities is included in *Income tax expense*, see *Additional Information - Income tax expense and effective tax rate* for more details.

3. Acquisition and related costs in 2020 associated with acquiring AST Canada, and 2021 associated with acquiring AST Canada and Tradesignal. These costs are included in *Selling general, and administration* and *Compensation and benefits*.

4. Integration costs related to integrating the AST Canada acquisition in 2021. These costs are included in *Selling, general and administration* and *Compensation and benefits*.

5. A reduction in commodity tax provision of $1.5 million in 2020, and is included in *Selling general and administration*.

6. A net litigation settlement cost of $12.4 million incurred in 2020, and is included in *Selling general and administration*

7. A reversal of a $2.9 million write-off of deferred income tax assets in 2017 related to TMX Atrium Wireless (sold April 2017) in 2021. This increase in deferred income tax assets is included in *Income tax expense*, see *Additional Information - Income tax expense and effective tax rate* for more details.

[27] Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".
[28] Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

(in millions of dollars) (unaudited)	Pre-tax		Tax		After-tax			
	2021	2020	**2021**	2020	**2021**	2020	**$ increase / (decrease)**	**% increase / (decrease)**
Net income					**$338.5**	$279.7	$58.8	21%
Adjustments related to:								
Amortization of intangibles related to acquisitions	**49.9**	47.4	**9.4**	9.3	**40.5**	38.1	2.4	6%
Increase in deferred income tax liabilities relating to a change in the future U.K. tax rate	**—**	—	**(19.6)**	(7.4)	**19.6**	7.4	12.2	165%
Acquisition and related costs[29]	**3.4**	1.7	**0.4**	—	**3.0**	1.7	1.3	76%
Integration costs[30]	**3.4**	—	**0.9**	—	**2.5**	—	2.5	n/a
Reduction in commodity tax provision	**—**	(1.5)	**—**	(0.4)	**—**	(1.1)	1.1	(100%)
Net litigation settlement costs	**—**	12.4	**—**	3.3	**—**	9.1	(9.1)	(100%)
Reversal of a previous write-off of deferred income tax assets[31]	**—**	—	**2.9**	—	**(2.9)**	—	(2.9)	n/a
Adjusted net income[32]					**$401.2**	$334.9	$66.3	20%

Adjusted net income increased by 20% from $334.9 million in 2020 to $401.2 million in 2021 largely driven by increased revenue, partially offset by higher operating expenses. There was also an increase in our share of income from BOX partially offset by higher net finance costs.

[29] Includes costs related to the acquisitions of AST Canada (acquired August 12, 2021) and Tradesignal (acquired June 1, 2021) in 2020 and 2021. See *Initiatives and Accomplishments - Capital Formation - AST Canada transaction* and *Initiatives and Accomplishments - Global Solutions, Insights & Analytics - Tradesignal transaction* for more details.

[30] Includes costs related to the integration of AST Canada (acquired August 12, 2021). See *Initiatives and Accomplishments - Capital Formation - AST Canada transaction* for more details.

[31] Related to TMX Atrium Wireless (sold April 2017).

[32] Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".

(unaudited)	2021 Basic	2021 Diluted	2020 Basic	2020 Diluted
Earnings per share	**$6.03**	**$5.99**	$4.96	$4.91
Adjustments related to:				
Amortization of intangibles related to acquisitions	**0.72**	**0.72**	0.67	0.67
Increase in deferred income tax liabilities relating to a change in the future U.K. tax rate	**0.35**	**0.35**	0.13	0.13
Acquisition and related costs[33]	**0.05**	**0.05**	0.03	0.03
Integration costs[34]	**0.04**	**0.04**	—	—
Reduction in commodity tax provision	**—**	**—**	(0.02)	(0.02)
Net litigation settlement costs	**—**	**—**	0.16	0.16
Reversal of a previous write-off of deferred income tax assets[35]	**(0.05)**	**(0.05)**	—	—
Adjusted earnings per share[36]	**$7.14**	**$7.10**	$5.93	$5.88
Weighted average number of common shares outstanding	**56,098,460**	**56,474,945**	56,425,302	56,950,290

Adjusted diluted earnings per share increased by 21% from $5.88 in 2020 to $7.10 in 2021 largely driven by increased revenue, partially offset by higher operating expenses. There was also an increase in our share of income from BOX partially offset by higher net finance costs. The increase in adjusted earnings per share was also partially attributable to a decrease in the number of weighted average common shares outstanding from 2020 to 2021.

[33] Includes costs related to the acquisitions of AST Canada (acquired August 12, 2021) and Tradesignal (acquired June 1, 2021) in 2021. See Initiatives and Accomplishments - Capital Formation - AST Canada transaction and Initiatives and Accomplishments - Global Solutions, Insights & Analytics - Tradesignal transaction for more details.
[34] Includes costs related to the integration of AST Canada (acquired August 12, 2021). See *Initiatives and Accomplishments - Capital Formation - AST Canada transaction* for more details.
[35] Related to TMX Atrium Wireless (sold April 2017).
[36] Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

Revenue

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
Capital Formation	**$257.7**	$189.0	$68.7	36%
Equities and Fixed Income Trading and Clearing	**235.9**	226.2	9.7	4%
Derivatives Trading and Clearing	**142.5**	126.2	16.3	13%
Global Solutions, Insights and Analytics	**344.6**	323.7	20.9	6%
Other	**—**	—	—	n/a
	$980.7	$865.1	$115.6	13%

Revenue was $980.7 million in 2021 up $115.6 million or 13% compared with $865.1 million in 2020 attributable to increases in revenue from *Capital Formation, Equities Trading, CDS, Derivatives Trading and Clearing* as well as *Global Solutions, Insights and Analytics,* partially offset by a decrease in *Fixed Income Trading* revenue.

Capital Formation

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
Initial listing fees	**$21.7**	$10.1	$11.6	115%
Additional listing fees	**108.2**	81.8	26.4	32%
Sustaining listing fees	**77.0**	69.3	7.7	11%
Other issuer services	**50.8**	27.8	23.0	83%
	$257.7	$189.0	$68.7	36%

- *Initial listing fees* in 2021 increased from 2020 due to a rise in the amount of deferred *initial listing fee* revenue recognized in 2021 compared with 2020 on both TSX and TSXV. We recognized *initial listing fees* received in 2020 and 2021 of $20.0 million in 2021 compared with *initial listing fees* received in 2019 and 2020 of $8.9 million in 2020.
- Based on *initial listing fees* billed in 2020 and 2021, the following amounts have been deferred to be recognized in Q1/22, Q2/22, Q3/22 and Q4/22: $5.0 million, $3.3 million, $1.8 million and $0.5 million respectively. Total *initial listing fees* revenue for future quarters will also depend on listing activity in those quarters.
- *Additional listing fees* in 2021 increased compared to 2020 reflecting an increase in *additional listing fee* revenue on TSX and TSXV where there was an increase in both the number of financings and total financing dollars raised. The increase in *additional listing fee* revenue on TSX reflected an increase of 44% in the number of transactions billed at the maximum listing fee of $250,000 from 2020 to 2021, and an 11% increase in the number of transactions billed below the maximum fee.

- Issuers listed on TSX and TSXV pay annual *sustaining listing fees* primarily based on their market capitalization at the end of the prior calendar year, subject to minimum and maximum fees. There was an increase in sustaining listing fees on both TSX and TSXV from 2020 to 2021 reflecting an increase in the market capitalization of issuers at December 31, 2020 compared with December 31, 2019.

- *Other issuer services* revenue in 2021 was higher compared to 2020 primarily due to increased revenue from TSX Trust from higher transfer agent fee revenue, and increases in corporate trust, margin income and recoverable revenue. Approximately $13.7 million of revenue related to AST Canada (acquired August 12, 2021) was included for 2021. Excluding AST Canada, *Other issuer services* revenue was up 33% in 2021 compared with 2020.

Equities and Fixed Income Trading and Clearing

(in millions of dollars)	**2021**	2020	**$ increase / (decrease)**	**% increase / (decrease)**
Equities and fixed income trading	**$125.6**	$127.0	($1.4)	(1)%
Equities and fixed Income clearing, settlement, depository and other services (CDS)	**110.3**	99.2	11.1	11%
	$235.9	$226.2	$9.7	4%

- CDS revenue increased from 2020 to 2021 reflecting higher clearing and settlement revenue due to higher volumes, increased depository fee revenue, event management related fees, international revenue, and higher revenue from account transfer online notifications. The increases in revenue were partially offset by higher rebates and lower network fees.

- There was lower *fixed income trading* revenue from 2020 to 2021 reflecting decreased activity in swaps and Government of Canada bonds. *Equities Trading* revenue increased slightly in 2021 compared with 2020 driven by higher volumes largely offset by a change in product mix.

- The overall volume of securities traded on our equities marketplaces increased by 2% (190.9 billion securities in 2021 versus 186.4 billion securities in 2020). There were increases in volumes of 24% on TSXV and 19% on Alpha, while volumes on TSX decreased by 10% in 2021 compared with 2020.

- Excluding intentional crosses, for TSX and TSXV listed issues, our combined domestic equities trading market share was approximately 65% in 2021, down 2% from 67% in 2020.[37] We only trade securities that are listed on TSX or TSXV.

- Excluding intentional crosses, in all listed issues in Canada, our combined domestic equities trading market share was 53% in 2021, down 6% from 59% in 2020[38].

[37] Source: IIROC.
[38] Source: IIROC.

Derivatives Trading and Clearing

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
	$142.5	$126.2	$16.3	13%

- The increase in revenue was driven by a 14% increase in revenue from MX and CDCC. While volumes on MX were up 29% from 2020 to 2021 (150.0 million contracts traded in 2021 versus 115.9 million contracts traded in 2020), there was lower revenue per contract reflecting changes in client mix and product mix. In 2021, there was an increase in high volume traders which resulted in lower revenue per contract. In addition, the volume increase was partially driven by contracts with lower yields such as single stock futures.
- There was reduced revenue of approximately $1.7 million from BOX mainly relating to our agreement to provide transitional services, which ended on June 30, 2020.

Global Solutions, Insights and Analytics

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
Trayport	**$150.6**	$136.7	$13.9	10%
GSIA (excluding Trayport)	**194.0**	187.0	$7.0	4%
	$344.6	$323.7	$20.9	6%

The increase in *Global Solutions, Insights and Analytics (GSIA)* revenue in 2021 compared with 2020 was primarily driven by increased revenue from Trayport as well as higher usage based quotes, partially offset by a stronger Canadian dollar relative to the U.S. dollar in 2021 compared with 2020.

Trayport

The following table summarizes the average number of Trayport subscribers (excluding VisoTech and Tradesignal) over the last eight quarters[39]:

	Q4/21	**Q3/21**	**Q2/21**	**Q1/21**	**Q4/20**	**Q3/20**	**Q2/20**	**Q1/20**
Trader Subscribers	6,135	5,677	5,483	5,392	5,259	5,150	4,999	5,192
Total Subscribers	27,473	26,620	26,196	25,889	25,259	24,662	24,277	24,712
Revenue (in millions of CAD)	$38.9	$37.9	$36.5	$37.3	$35.3	$34.2	$33.5	$33.7
Average CAD-GBP FX rate	1.71	1.72	1.71	1.77	1.73	1.74	1.70	1.74
Revenue (in millions of GBP)	£22.7	£22.0	£21.3	£21.1	£20.4	£19.6	£19.7	£19.4

Total Subscribers means all chargeable licenses of core Trayport products in core customer segments including Traders, Brokers and Exchanges. Trader Subscribers are a subset of Total Subscribers. Trader Subscribers revenue represents over 50% of total Trayport revenue.

[39] Previous amounts have been restated based on current data.

Revenue from Trayport increased by 10% from 2020 to 2021. In GBP, revenue from Trayport, was £87.1 million (based on CAD-GBP FX rate of 1.73) in 2021 up 10% over 2020. The increase in Trayport revenue was driven by a 7% growth in the average number of total subscribers. Approximately $2.1 million (£1.2 million, based on CAD-GBP FX rate of 1.72) of revenue related to Tradesignal (acquired June 1, 2021) was included in 2021.

GSIA (excluding Trayport)

Revenue from GSIA (excluding Trayport) increased by 4% from 2020 to 2021. There were higher revenues related to an increase in both professional and non-professional subscribers, usage based quotes, benchmarks and indices as well as co-location. The higher revenue was partially offset by an unfavourable impact of approximately $6.1 million from a stronger Canadian dollar relative to the U.S. dollar in 2021 compared with 2020.

- The average number of professional market data subscriptions for TSX and TSXV products was up 6% from 2020 to 2021 (106,261 professional market data subscriptions in 2021 compared with 100,635 in 2020.)
- The average number of MX professional market data subscriptions increased 6% from 2020 to 2021 (19,635 MX professional market data subscriptions in 2021 compared with 18,607 in 2020).

Operating expenses

(in millions of dollars)	**2021**	2020	**$ increase / (decrease)**	**% increase / (decrease)**
Compensation and benefits	**$253.5**	$226.6	$26.9	12%
Information and trading systems	**64.6**	57.6	7.0	12%
Selling, general and administration	**84.3**	84.7	(0.4)	0%
Depreciation and amortization	**87.1**	80.3	6.8	8%
	$489.5	$449.2	$40.3	9%

Operating expenses in 2021 were $489.5 million, up $40.3 million or 9%, from $449.2 million in 2020. There were approximately $21.9 million of expenses included in 2021 related to AST Canada (acquired August 12, 2021), including $2.0 million related to amortization of acquired intangibles (3 cents per basic and diluted share), $2.0 million related to the TSA, acquisition and related costs of $3.1 million (5 cents per basic and diluted share), as well as integration costs of $3.4 million (4 cents per basic and diluted share). The increase reflected higher headcount and payroll costs, including merit increases, and increased costs related to our short term employee performance incentive plan of approximately $6.9 million. There were also higher expenses related to higher recoverable expenses, software license and maintenance costs, information security software and legal expenses.

The increases were somewhat offset by net litigation settlement costs of $12.4 million (16 cents per basic and diluted shared) in 2020. We also incurred $1.7 million (3 cents per basic and diluted share) in acquisition and related costs related to AST Canada in 2020. There was a $1.8 million decrease in expenses largely relating to the release of a provision for restoration costs for our data centre in 2021. There was also a reduction in long term incentive plan costs of approximately $7.0 million, and lower severance costs in 2021 compared with 2020. In addition, there was a $1.5 million reduction in commodity tax provision (2 cents per basic and diluted share) in 2020.

Compensation and benefits

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
	$253.5	$226.6	$26.9	12%

- The increase in *Compensation and benefits* expenses reflected higher headcount and payroll costs, including merit increases, and higher short term employee performance incentive plan costs of approximately $6.9 million. There was approximately $5.3 million included in 2021 related to AST Canada (acquired August 12, 2021). In addition, we incurred acquisition and related costs related to AST Canada of approximately $0.7 million, as well as integration costs of $2.1 million. These increases were somewhat offset by lower long term employee performance incentive plan costs of approximately $7.0 million as well as lower severance costs.
- There were 1,576 TMX Group employees at December 31, 2021 versus 1,383 employees at December 31, 2020 reflecting an increase in headcount attributable to investing in the various growth areas of our business. The headcount in 2021, includes approximately 150 employees for AST Canada (acquired August 12, 2021) and approximately 15 employees for Tradesignal (acquired June 1, 2021).

Information and trading systems

(in millions of dollars)	2021	2020	$ increase	% increase
	$64.6	$57.6	$7.0	12%

- The increase in *Information and trading systems* expenses from 2020 to 2021 reflected higher expenses related to information security software, higher project related spend, software license and maintenance costs, as well as increased costs for storage and data feeds. There was approximately $2.8 million included in 2021 related to AST Canada (acquired August 12, 2021), including $0.9 million related to the TSA, and integration costs of $0.4 million.

Selling, general and administration

(in millions of dollars)	2021	2020	$ (decrease)	% (decrease)
	$84.3	$84.7	$(0.4)	0%

- *Selling, general and administration* expenses decreased by $0.4 million in 2021 compared with 2020 primarily due to net litigation settlement costs of $12.4 million (16 cents per basic and diluted share) in 2020. There was also a $1.8 million decrease in expenses largely relating to the release of a provision for restoration costs for our data centre in 2021.

- The decreases in S*elling, general and administration* expenses were partially offset by higher recoverable expenses, higher legal fees, and increased director fees. There was approximately $8.4 million included in 2021 related to AST Canada (acquired August 12, 2021), including $1.1 million related to the TSA, integration costs of $0.9 million, as well as acquisition and related costs of approximately $2.3 million. In addition, there was approximately $0.4 million of acquisition and related costs related to Tradesignal (acquired June 1, 2021). There was also a $1.5 million reduction in commodity tax provision (2 cents per basic and diluted share) in 2020.

Depreciation and amortization

(in millions of dollars)	2021	2020	$ increase	% increase
	$87.1	$80.3	$6.8	8%

- There were higher *Depreciation and amortization* costs reflecting increased amortization related to AST Canada (acquired August 12, 2021) of $2.6 million, as well as Tradesignal (acquired June 1, 2021).

- The *Depreciation and amortization* costs in 2021 of $87.1 million included $49.9 million related to amortization of intangible assets related to acquisitions (72 cents per basic and diluted share).

- The *Depreciation and amortization* costs in 2020 of $80.3 million included $47.4 million related to amortization of intangible assets related to acquisitions (67 cents per basic and diluted share).

Additional Information

Share of income from equity accounted investees

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
	$24.2	$5.7	$18.5	325%

- In 2021, our share of income from equity accounted investees increased by $18.5 million primarily due to an increase in our share of income from BOX reflecting higher revenues driven by a 129% increase in volumes from 2020 to 2021. This increase was partially offset by an increase in long term employee performance incentive plan costs, and an unfavorable impact from a stronger Canadian dollar relative to the U.S. dollar in 2021 compared with 2020.

Net finance costs

(in millions of dollars)	**2021**	2020	**$ increase**	**% increase**
	$36.1	$32.8	$3.3	10%

- The increase in net finance costs for 2021 compared to 2020 reflected higher net interest expense due to lower finance income as a result of lower interest rates, and higher costs related to the Series F Debentures issued in Q1/21, somewhat offset by reduced interest costs related to Commercial Paper.

Income tax expense and effective tax rate

Income Tax Expense (in millions of dollars)		**Effective Tax Rate** (%)	
2021	2020	**2021**	2020
$140.8	$109.1	**29%**	28%

Excluding adjustments, primarily related to the items noted below, the effective tax rate would have been approximately 26% for 2021 and 2020.

2021

- In 2021, there was an increase in net deferred income tax liabilities, as well as a corresponding increase in income tax expense of $19.6 million relating to a change in the U.K. corporate tax rate. In Q2/21, the previously announced increase in the U.K. corporate income tax rate from 19% to 25%, effective April 1, 2023, was substantively enacted. The net deferred income tax liabilities were revalued accordingly to reflect the higher tax rate.

- In 2021, there was a $3.9 million increase in our deferred income tax assets, which reduced income tax expense, primarily relating to the carryforward of net operating losses related to TMX Atrium Wireless (sold April 2017) that were not previously recognized. This increase included a reversal of a $2.9 million (5 cents per basic and diluted share) write off of deferred income tax assets in 2017. In Q1/17, we adjusted our basic and diluted earnings per share for this item. As of Q4/21, we expect these net operating losses to now be fully recoverable.

2020

- In 2020, there was an increase in deferred income tax liabilities and a corresponding increase in income tax expense of $7.4 million relating to the U.K. corporate income tax rate. In Q1/20, it was announced that the U.K. corporate income tax rate would not decline as previously anticipated; therefore, we were required to revalue deferred income tax liabilities.

Total equity

(in millions of dollars)	**As at December 31, 2021**	As at December 31, 2020	**$ increase**
Total equity	**$3,706.1**	$3,611.5	$94.6

- As at December 31, 2021, there were 55,882,134 common shares issued and outstanding and 1,133,983 options outstanding under the share option plan.

- As at February 1, 2022, there were 55,910,089 common shares issued and outstanding and 1,106,028 options outstanding under the share option plan.

- The increase in Total equity is primarily attributable to the inclusion of net income of $338.5 million, proceeds received on the exercise of options of $15.1 million, less dividend payments to shareholders of TMX Group of $168.9 million. In addition, 646,600 of our common shares were repurchased in 2021 under a normal course issuer bid for $84.4 million.

Segments

The following information reflects TMX Group's segment results for 2021 compared with 2020.

2021

(in millions of dollars)	Capital Formation	Equities and Fixed Income Trading & Clearing	Derivatives Trading & Clearing	Global Solutions, Insights & Analytics	Other	Total
Revenue from external customers	$ 257.7	$ 235.9	$ 142.5	$ 344.6	$ —	$ 980.7
Inter-segment revenue	0.2	2.3	—	0.3	(2.8)	—
Total revenue	257.9	238.2	142.5	344.9	(2.8)	980.7
Income (loss) from operations	144.6	123.2	65.2	219.7	(61.5)	491.2

2020

(in millions of dollars)	Capital Formation	Equities and Fixed Income Trading & Clearing	Derivatives Trading & Clearing	Global Solutions, Insights & Analytics	Other	Total
Revenue from external customers	$ 189.0	$ 226.2	$ 126.2	$ 323.7	$ —	$ 865.1
Inter-segment revenue	0.2	1.9	—	0.3	(2.4)	—
Total revenue	189.2	228.1	126.2	324.0	(2.4)	865.1
Income (loss) from operations	100.0	119.0	60.0	207.8	(70.9)	415.9

Income (loss) from operations

The increase in *Income from operations* from *Capital Formation* primarily reflected higher revenue from *additional listing fees* in 2021 compared with 2020. There were also increases in revenue from *initial listing fees*, *sustaining listing fees*, and TSX Trust which includes AST Canada (acquired August 12, 2021). The higher revenue was partially offset by higher operating expenses in 2021 compared with 2020, including approximately $2.5 million (4 cents per basic and diluted share) in integration costs related to AST Canada.

The increase in *Income from operations* from *Equities and Fixed Income Trading and Clearing* was largely driven by increased revenue from CDS and *Equities Trading* somewhat offset by lower *fixed income trading* in 2021 compared with 2020. The higher revenue was partially offset by higher operating expenses in 2021 compared with 2020.

The increase in *Income from operations* from *Derivatives Trading and Clearing* primarily reflected higher revenue driven by higher volumes in 2021 compared with 2020. The increase was somewhat offset by higher operating expenses reflecting increased compensation and benefits costs as well as project related expenses in 2021 compared with 2020. There was also a decrease in *Derivatives Trading and Clearing* revenue mainly attributable to reduced revenue of

approximately $1.7 million from BOX relating to our agreement to provide transitional services, which ended on June 30, 2020.

The increase in *Income from operations* from *Global Solutions, Insights and Analytics* reflects higher revenue from Trayport and TMX Datalinx. The increase in Trayport revenue reflected higher total subscribers, increased sales of additional products, and enterprise license renewals in 2021 compared with 2020. Within TMX Datalinx, there were higher revenues related to an increase in both professional and non-professional subscribers, usage based quotes, benchmarks and indices as well as co-location. The higher revenue was partially offset by an unfavourable impact of approximately $6.1 million from a stronger Canadian dollar relative to the U.S. dollar in 2021 compared with 2020, as well as higher operating expenses in 2021 compared with 2020.

Other includes certain revenue as well as corporate and other costs related to initiatives, not allocated to the operating segments. Revenue related to foreign exchange gains and losses and other services are presented in the *Other* segment. Costs and expenses related to the amortization of purchased intangibles, along with certain consolidation and elimination adjustments, are also presented in *Other*. The *loss from operations* in the *Other* segment decreased in 2021 primarily reflecting net litigation settlement costs of $12.4 million incurred and allocated to the *Other* segment in 2020.

Somewhat offsetting these decreases, was an increase in project-related fees. There was also a $1.5 million reduction in commodity tax provision (2 cents per basic and diluted share) in 2020.

LIQUIDITY AND CAPITAL RESOURCES

Summary of Cash Flows

2021 compared with 2020

(in millions of dollars)	**2021**	2020	**$ increase / (decrease) in cash**
Cash flows from operating activities	**$441.4**	$412.2	$29.2
Cash flows used in financing activities	**(194.8)**	(304.4)	109.6
Cash flows used in investing activities	**(203.9)**	(34.8)	(169.1)

- In 2021, *Cash flows from operating activities* increased compared with 2020 reflecting higher income from operations (excluding depreciation and amortization). These increases were somewhat offset by decreases in cash related to trade and other receivables, and prepaid expenses, trade and other payables, other assets and liabilities as well as increased income taxes paid.
- In 2021, *Cash flows used in financing activities* were lower than in 2020. In 2021, we received proceeds from the issuance of our Series F Debentures of $250.0 million. This increase in cash was partially offset by an increase in net repayments of Commercial Paper of $80.4 million, an increase in share repurchases under our normal course issuer bid program of $27.6 million, a decrease in proceeds from exercised options of $16.6 million, and an increase in dividends paid to equity holders of $15.3 million.
- In 2021, C*ash flows used in investing activities* were higher than in 2020. This was largely attributable to cash outflows relating to acquisition of subsidiaries, net of cash acquired, of $138.4 million, and a decrease in cash of $46.1 million from the net purchase of marketable securities in 2021 compared with net sales in 2020. Partially offsetting these decreases, cash used for additions to premises and equipment and intangible assets decreased by $15.9 million from 2020 to 2021.

Summary of Cash Position and Other Matters[40]

Cash, Cash Equivalents and Marketable Securities

(in millions of dollars)	**As at December 31, 2021**	As at December 31, 2020	**$ increase**
Cash and cash equivalents	**$264.3**	$222.1	$42.2
Marketable securities	**$77.3**	$55.8	$21.5
Cash, cash equivalents and marketable securities	**$341.6**	$277.9	$63.7

We had $341.6 million of cash, cash equivalents and marketable securities as at December 31, 2021. There was an increase in cash, cash equivalents and marketable securities primarily reflecting proceeds from the issuance of Series F Debentures of $250.0 million, cash flows from operating activities of $441.4 million, proceeds from exercised options of $15.1 million, and cash flows from dividends received of $5.7 million. Offsetting these increases in cash and cash equivalents were a net decrease in Commercial Paper of $160.0 million, cash outflows relating to acquisitions of $138.4 million, cash outflows for dividends to our shareholders of $168.9 million, repurchases of our shares under a

[40] The "S*ummary of Cash Position and Other Matters*" section above contains certain forward-looking statements. Please refer to *"Caution Regarding Forward-Looking Information*" for a discussion of risks and uncertainties related to such statements.

normal course issuer bid of $84.4 million, additions to premises and equipment and intangible assets of $51.2 million, and interest paid, net of interest received of $33.1 million. Based on our current business operations and model, we believe that we have sufficient cash resources and access to financing to operate our business, make interest payments, as well as meet our covenants under the trust indentures governing our Debentures and the financial covenants of the Credit Agreement, and commercial paper program (Commercial Paper Program) (see **LIQUIDITY AND CAPITAL RESOURCES - Commercial Paper, Debentures, Credit and Liquidity Facilities**), and satisfy the capital maintenance requirements imposed by regulators.

We will also have cash outlays related to the modernization of our clearing platforms (see - **INITIATIVES AND ACCOMPLISHMENTS - Update on Modernization of CDS Clearing Platform**).

Our ability to obtain funding in the future will depend on the liquidity and condition of the financial markets, including the credit market, and our financial condition at the time, the covenants in the Credit Agreement and the trust indentures governing the Debentures, and by capital maintenance requirements imposed by regulators. At December 31, 2021, there was no Commercial Paper outstanding.

Total Assets

(in millions of dollars)	**As at December 31, 2021**	As at December 31, 2020	**$ increase**
	$63,199.4	$36,098.6	$27,100.8

- Our consolidated balance sheet as at December 31, 2021 includes *Balances of Participants and Clearing Members* related to our clearing operations. These balances have equal amounts included within *Total Liabilities*. The increase in *Total Assets* of $27,100.8 million from December 31, 2020 reflected higher amounts received on REPO and higher collateral balances in both CDS and CDCC at December 31, 2021.

Defined Benefits Pension Plan

Based on the most recent actuarial valuations (as at December 31, 2019, December 31, 2020 or January 1, 2021 depending on the plan), we estimate a net deficit of approximately $7.6 million of which $3.5 million was funded in 2021. The next required tri-annual valuation for the TMX registered pension plan (RPP) will be as at December 31, 2022.

Commercial Paper, Debentures, Credit and Liquidity Facilities

Commercial Paper

(in millions of dollars)	**As at December 31, 2021**	As at December 31, 2020	**$ (decrease)**
	$—	$160.0	$(160.0)

There was no Commercial Paper outstanding under the program at December 31, 2021 reflecting a net reduction of $160.0 million from December 31, 2020. The Commercial Paper Program is fully backstopped by the TMX Group credit facility.

On April 28, 2021, TMX reduced the size of its Commercial Paper Program from $500.0 million to $400.0 million (or the US equivalent). The Commercial Paper is issued in various maturities of no more than one year and bears interest rates based on the prevailing market conditions at the time of issuance.

On October 6, 2021, DBRS Morningstar, our rating agency, reconfirmed their R-1 (low) rating on our Commercial Paper and changed the trend from Stable to Positive.

Debentures

As of December 31, 2021, TMX Group had the following Debentures outstanding:

Debenture	Principal Amount ($ millions)	Coupon	Maturity Date	DBRS Credit Rating
Series B	**250.0**	4.461% per annum, payable in arrears in equal semi-annual installments (long first coupon)	October 3, 2023	A (high)
Series D	**300.0**	2.997% per annum, payable in arrears in equal semi-annual installments	December 11, 2024	A (high)
Series E	**200.0**	3.779% per annum, payable in arrears in equal semi-annual installments	June 5, 2028	A (high)
Series F	**250.0**	2.016% per annum, payable in arrears in equal semi-annual installments	February 12, 2031	A (high)

On February 12, 2021, TMX Group completed a Canadian private placement offering of $250.0 million aggregate principal amount of 2.016% senior unsecured debentures due February 12, 2031 ("Series F Debentures") to accredited investors in Canada. The Series F Debentures received a credit rating of A (high) with a Stable trend from DBRS Morningstar. TMX Group incurred financing costs of $1.3 million for the initial issuance of Series F Debentures, and these costs are offset against the initial carrying value of the Series F Debentures.

- The Series B, Series E, and Series F Debentures may be redeemed, at the option of TMX Group, in whole or in part at the redemption price together with accrued and unpaid interest to the date fixed for redemption. The redemption price is equal to the greater of the applicable Canada Yield Price (as defined in the relevant Trust Indenture (as defined below)) and 100% of the principal amount of the Series B, Series E, and Series F Debentures being redeemed to the date fixed for redemption. If the Series B, Series E, and Series F Debentures are redeemed anytime on or after three months prior to the maturity date of the series, the redemption price is equal to 100% of the aggregate principal amount outstanding on the Series B, Series E, and Series F Debentures together with accrued and unpaid interest to the date of the redemption.

- The Series D Debentures may be redeemed, in whole or in part, at the option of TMX Group, at the redemption price together with accrued and unpaid interest to the date fixed for redemption. The redemption price is equal to the greater of the Canada Yield Price (as defined in the relevant Trust Indenture) and 100% of the principal amount of the Series D Debentures being redeemed. If the Series D Debentures are redeemed anytime on or after two months prior to the maturity date of the series, the redemption price will be equal to 100% of the aggregate principal amount outstanding on the Series D Debentures together with accrued and unpaid interest to the date of the redemption.

- The trust indenture and the supplements thereto which govern the Debentures (collectively, the Trust Indentures and each a Trust Indenture) include the following covenants:
  - A negative pledge which restricts the ability of TMX Group and each of its material subsidiaries (as defined in the Trust Indentures) to create a lien on these entities' assets unless the Debentures are similarly secured on an equal and rateable basis.
  - A limitation on the ability of material subsidiaries of TMX Group to enter into certain types of indebtedness.
  - In the event of a change of control (as such term is defined in the Trust Indentures) of either TSX Inc. or MX, if the rating of the Debentures is lowered to below investment grade (as defined in the Trust Indentures), TMX Group will be required, at the option of the Debenture holder to repurchase, in whole or in part, the holder's Debentures at a cash price of 101% of the outstanding principal amount of the Debentures plus all accrued and unpaid interest up to the date of repurchase.
  - A requirement for TMX Group to maintain at least one credit rating from a Specified Credit Rating Agency (as defined in the Trust Indentures).

(in millions of dollars)	**As at December 31, 2021**	As at December 31, 2020	$ increase
Series B - Non-Current Debentures	**$249.8**	$249.8	$0.0
Series D - Non-Current Debentures	**$299.3**	$298.7	$0.6
Series E - Non-Current Debentures	**$199.2**	$199.0	$0.2
Series F - Non-Current Debentures	**$248.8**	$—	$248.8
	$997.1	$747.5	$249.6

In Q1/21, a portion of the proceeds from the Series F Debentures were used to repay TMX Group's commercial paper. In July 2021, we listed our Series B, Series D, Series E, and Series F Debentures on TSX.

On October 6, 2021, DBRS Morningstar, our rating agency, reconfirmed their A (high) rating on TMX Group Limited and on our Senior Unsecured Debt and changed the trend from Stable to Positive.

TMX Group Credit Facility

In 2016, TMX Group entered into an amended and restated credit agreement (as amended on each of December 14, 2017 and September 12, 2018, the Credit Agreement) which replaced our existing 2014 credit agreement. The aggregate amount available under the Credit Agreement is reduced by the outstanding amount of Commercial Paper and any outstanding inter-company notes payable to CDS, CDCC, and Shorcan. The maturity date of the Credit Agreement was May 2, 2021.

On April 28, 2021, TMX Group amended the terms of the TMX Group Limited credit facility to decrease the size of the facility from $500.0 million to $400.0 million, and extended the term from May 2, 2021 to May 2, 2024.

Under the terms of the Credit Agreement there is:

- an Interest Coverage Ratio of more than 4.0:1. The Interest Coverage Ratio is the ratio of adjusted EBITDA for the period comprised of the four most recently completed financial quarters to the consolidated interest expense for such four financial quarters. Adjusted EBITDA means earnings on a consolidated basis before interest, taxes, extraordinary, unusual or non-recurring items, depreciation and amortization, as well as non-cash items;

- a Total Leverage Ratio of not more than 3.5:1. Total Leverage Ratio at any time is the ratio of consolidated debt as at such time to adjusted EBITDA for the period comprised of the four most recently completed financial quarters.

As at December 31, 2021, all covenants were met under the Credit Agreement governing the TMX Group credit facility.

The following table summarizes the Applicable Rates and Fee Rates and corresponding Total Leverage Ratios under the Credit Agreement. The Standby Fee is charged on the unutilized portion of the revolving facility. The Applicable Rate represents the corporate spread that is included in the interest rate that is applied to the drawn portion of the facility.

Applicable Margin Pricing Matrix			
Total Leverage Ratio (x)	**Standby Fee for undrawn portion of Revolving Facility**	**Prime Rate Loans and US Base Rate Loans**	**BA Instruments/ LIBOR Loans / Letters of Credit**
≤ 2.0	21.5 bps	7.5 bps	107.5 bps
> 2.0 and ≤ 2.5	24.5 bps	22.5 bps	122.5 bps
> 2.5 and ≤ 3.0	27.5 bps	37.5 bps	137.5 bps
> 3.0 and ≤ 3.5	32.5 bps	62.5 bps	162.5 bps

Other Credit and Liquidity Facilities

CDCC maintains daylight liquidity facilities for a total of $975.0 million to provide liquidity on the basis of collateral in the form of securities that have been received by, or pledged to, CDCC. The daylight liquidity facility must be cleared to zero at the end of each day.

CDCC maintains a $27,012.0 million REPO uncommitted facility ($27,012.0 million at December 31, 2020) that is in place to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero. On February 26, 2021, CDCC extended this facility to February 25, 2022. The facility would provide liquidity in exchange for securities that have been received by, or pledged to, CDCC.

CDCC also maintains a $100.0 million syndicated revolving standby liquidity facility ($320.0 million at December 31, 2020) to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero. Advances under the facility are secured by collateral in the form of securities that have been received by, or pledged to, CDCC. The borrowing rate on this facility is prime rate less 1.75%. On February 26, 2021, this facility was extended to February 25, 2022 and on June 4, 2021, CDCC reduced this facility from $320.0 million to $100.0 million.

As at December 31, 2021, CDCC had drawn $2.0 million to facilitate a failed REPO settlement. The amount is fully offset by liquid securities included in cash and cash equivalents and was fully repaid subsequent to the reporting date.

CDS Clearing maintains a secured standby liquidity facility of US$720.0 million, or Canadian dollar equivalent, that can be drawn in either United States (US) or Canadian currency. On March 23, 2021, CDS Clearing extended the maturity date to March 22, 2022.

CDS Clearing also has a secured standby liquidity facility of $2.0 billion or US equivalent that can be drawn in either Canadian or US currency. On March 23, 2021, CDS Clearing extended the maturity date to March 22, 2022.

Contractual Obligations

(in millions of dollars)				**December 31, 2021**
	Total	**Less than 1 year**	**Between 1 and 5 years**	**Greater than 5 years**
Participants' tax withholdings*	180.0	180.0	—	—
Accrued interest payable	5.7	5.7	—	—
Other trade and other payables	89.4	89.4	—	—
Provisions	2.1	0.4	1.2	0.5
Lease liabilities	97.6	9.3	34.1	54.2
Balances with Participants and Clearing Members*	57,113.5	57,113.5	—	—
Total return swaps	0.4	0.4	—	—
Commercial Paper	—	—	—	—
Debentures	997.1	—	549.1	448.0

**The above financial liabilities are covered by assets that are restricted from use in the ordinary course of business.*

MANAGING CAPITAL

The Company's primary objectives in managing capital, which we define to include our cash and cash equivalents, marketable securities, share capital, Commercial Paper, Debentures, and various credit facilities, include:

- Maintaining sufficient capital for operations to ensure market confidence and to meet regulatory requirements and credit facility requirements (see **Commercial Paper, Debentures, Credit and Liquidity Facilities** for a description of certain financial covenants under the Credit Agreement). Currently, we target to retain a minimum of $205.0 million in cash, cash equivalents and marketable securities. This amount is subject to change;
- Maintaining a credit rating in a range consistent with the Company's current A (high) and R1-low credit ratings from DBRS;
- Using excess cash to invest in and continue to grow the business;
- Returning capital to shareholders through methods such as dividends paid to shareholders and purchasing shares for cancellation pursuant to normal course issuer bids; and
- Reducing the debt levels to be below the total leverage ratios as discussed in (a) below, which decrease over time.

TMX Group aims to achieve the above objectives while managing its capital subject to capital maintenance requirements imposed on TMX Group and certain subsidiaries as follows:

a. In respect of the TMX Group Limited credit facility that requires TMX Group to maintain:

    i. an interest coverage ratio of more than 4.0:1;

    ii. a total leverage ratio of not more than 3.50:1

b. In respect of TSX and Alpha Exchange Inc, to maintain the following requirements, on both a consolidated and non-consolidated basis, as set out in the amended and restated recognition order issued by the Ontario Securities Commission (OSC) effective September 2020:

    i. maintain sufficient financial resources for the proper performance of its functions and to meet its responsibilities; and

    ii. calculate on a monthly basis:

        1. a current ratio;

        2. a debt to cash flow ratio; and

        3. a financial leverage ratio.

c. In respect of TSX Venture Exchange, as required by certain provincial securities commissions, to maintain sufficient financial resources to perform its functions.

d. In respect of MX, as required by the AMF, to maintain certain financial ratios as defined in the AMF recognition order, as follows:

    i. a working capital ratio of more than 1.5:1;

    ii. a cash flow to total debt outstanding ratio of more than 20%; and

    iii. a financial leverage ratio of less than 4.0.

e. In respect of CDCC, to maintain certain amounts, as follows:

    i. maintain sufficient financial resources as required by the OSC and AMF;

    ii. $5.0 million cash and cash equivalents or marketable securities as part of the Clearing Member default recovery process plus an additional $5.0 million in the event that the initial $5.0 million is fully utilized during a default;

    iii. sufficient cash, cash equivalents and marketable securities to cover 12 months of operating expenses, excluding amortization and depreciation; and

    iv. $30.0 million total shareholder's equity.

f. In respect of CDS and CDS Clearing, as required by the OSC and the AMF to maintain certain financial ratios as defined in the OSC recognition order, as follows:

    i. a debt to cash flow ratio of less than or equal to 4:1; and

    ii. a financial leverage ratio of less than or equal to 4:1.

    In addition, the OSC requires CDS and CDS Clearing to maintain working capital to cover 6 months of operating expenses (excluding, in the case of CDS, the amount of shared services fees charged to CDS Clearing).

    CDS is required to dedicate a portion of its own resources in the CNS default waterfall for the CNS function. The Company maintains $1.0 million in cash and cash equivalents or marketable securities to cover potential losses incurred as a result of a Participant default.

g. In respect of Shorcan:

    i. by IIROC which requires Shorcan to maintain a minimum level of shareholders’ equity of $0.5 million;

ii. by the National Futures Association ("NFA") which requires Shorcan to maintain a minimum level of net capital; and

iii. by applicable Canadian securities commissions which requires Shorcan to maintain a minimum level of excess working capital.

h. In respect of TSX Trust:

i. as required by the Office of the Superintendent of Financial Institutions, to maintain the following minimum capital ratios:

1. common equity tier 1 capital ratio of 7%;
2. tier 1 capital ratio of 8.5%; and
3. total capital ratio of 10.5%

ii. as required by IIROC, to maintain in excess of $100.0 million of paid up capital and surplus on the last audited balance sheet for the acceptable institution designation.

As at December 31, 2021 and 2020, we were in compliance with each of the externally imposed capital requirements in effect at the applicable period-end.

FINANCIAL INSTRUMENTS

Cash, Cash Equivalents and Marketable Securities

Our financial instruments include cash, cash equivalents and investments in marketable securities which are held to earn investment income. Marketable securities consist of Federal and Provincial treasury bills.

We have designated our marketable securities as fair value through profit and loss. Fair values have been determined by reference to quoted market prices.

The primary risks related to cash, cash equivalents and marketable securities are credit risk, market risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

Restricted Cash and Cash Equivalents

Restricted cash and cash equivalents contains tax withheld by CDS on entitlement payments made by CDS on behalf of CDS participants. The restricted cash and cash equivalents related to this withheld tax is ultimately under the control of CDS; however, the amount is payable to various taxation authorities within a relatively short period of time and so is restricted from use in normal operations. An equivalent and offsetting amount is included in the consolidated balance sheet under the caption Participants' tax withholdings. At December 31, 2021, we had restricted cash and cash equivalents of $180.0 million.

The primary risks related to restricted cash and cash equivalents are credit risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

Trade Receivables

Our financial instruments include accounts receivable, which represents amounts that our customers owe us. The carrying value is based on the actual amounts owed by the customers, net of loss allowances for trade receivables measured at an amount equal to lifetime expected credit losses, calculated using historical credit loss experience taking

into account current observable data at the reporting date to reflect the effects of any relevant current market conditions and forecasts of future economic conditions.

The primary risks related to trade receivables are credit risk and market risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

CDS – Participant cash collateral and entitlements and other funds

As part of CDS's clearing operations, CDS Participant Rules require participants to pledge collateral to CDS in the form of cash or securities in amounts calculated in relation to their activities. Cash pledged and deposited with CDS is recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the participants. There is no impact on the consolidated income statement. Securities pledged do not result in an economic inflow to CDS, and therefore, are not recognized.

The primary risks associated with these financial instruments are credit risk, market risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

CDCC – Daily Settlements due to and due from Clearing Members

As part of CDCC's clearing operations, amounts due from and to Clearing Members as a result of marking to market open futures positions and settling options transactions each day are required to be collected from or paid to Clearing Members prior to the commencement of trading the next day. The amounts due from and due to Clearing Members are recognized in the consolidated assets and liabilities as Balances with Participants and Clearing Members. There is no impact on the consolidated statements of income.

CDCC – Clearing Members' cash margin deposits and clearing fund cash deposits

These balances represent the cash deposits of Clearing Members held in the name of CDCC as margins against open positions and as part of the clearing fund. The cash held is recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the Clearing Members. There is no impact on the consolidated income statement.

CDCC – Net amounts receivable/payable on open REPO agreements

CDCC clears fixed income REPO agreements. OTC REPO agreements between buying and selling Clearing Members are novated to CDCC whereby the rights and obligations of the Clearing Members under the REPO agreements are cancelled and replaced by new agreements with CDCC. Once novation occurs, CDCC becomes the counterparty to both the buying and selling Clearing Member. As a result, the contractual right to receive and return the principal amount of the REPO as well as the contractual right to receive and pay interest on the REPO is thus transferred to CDCC. These balances represent outstanding balances on open REPO agreements. Receivable and payable balances outstanding with the same Clearing Member are offset when they are in the same currency and are to be settled on the same day, as CDCC has a legally enforceable right to offset and the intention to net settle. The balances include both the original principal amount of the REPO and the accrued interest, both of which are carried at amortized cost. As CDCC is the central counterparty, an equivalent amount is recognized in both TMX Group's' assets and liabilities.

The primary risks associated with these financial instruments are credit risk, market risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

Commercial Paper

TMX Group maintains a Commercial Paper Program to offer potential investors up to $400.0 million (or the equivalent U.S. dollars) of Commercial Paper to be issued in various maturities of up to one year from the date of issue. The Commercial Paper bears interest rates based on the prevailing market conditions at the time of issuance. The Commercial Paper Program is supported by the Credit Agreement. The Commercial Paper issued represents an unsecured obligation and ranks equally with all other senior unsecured obligations of TMX Group. The Commercial Paper has been assigned a rating of "R-1 (low)" with a Positive trend by DBRS.

The Commercial Paper is subject to market risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

Debentures

TMX Group has the following Debentures outstanding: a $250-million Series B Debentures with a 4.461% coupon and a 10-year term, a $300.0-million principal amount Series D Debentures with a 2.997% coupon and a 7-year term, a $200.0-million Series E Debentures with a 3.779% coupon and a 10-year term, and a $250.0-million Series F Debentures with a 2.016% coupon and a 10-year term. The Debentures received a credit rating of A (high) with a Positive trend from DBRS.

The Debentures are subject to market risk and liquidity risk. For a description of these risks, please refer to **Enterprise Risk Management - Financial Risks**.

Total Return Swaps (TRS)

We have entered into a series of TRSs, which synthetically replicate the economics of purchasing our shares as a partial economic hedge to the share appreciation rights of the RSUs, PSUs, and DSUs.

We have classified our series of TRSs as fair value through profit and loss and mark to market the fair value of the TRSs as an adjustment to income. We also simultaneously mark to market the liability to holders of the units as an adjustment to income. Fair value is based on the share price of our common shares at the end of the reporting period. The fair value of the TRSs and the obligation to unit holders are reflected on the consolidated balance sheet. The contracts are settled in cash upon maturity.

For the year ended December 31, 2021, unrealized gains and realized losses on the TRSs of $2.1 million and $0.4 million, respectively have been reflected in the consolidated income statement (2020 – unrealized losses and realized gains of $$1.4 million and $$8.7 million, respectively).

TRSs are subject to credit risk and market risk. For a description of this risk, please refer to **Enterprise Risk Management - Financial Risks**.

CRITICAL ACCOUNTING ESTIMATES

Goodwill and Intangible Assets – Valuation and Impairment Testing

We recorded goodwill and intangible assets valued at $5,156.9 million as at December 31, 2021, up by $109.2 million from $5,047.7 million at December 31, 2020. Management has determined that the testing for impairment of goodwill and intangible assets involves making critical accounting estimates.

Goodwill is recognized at cost on acquisition less any subsequent impairment in value. We measure goodwill arising on a business combination as the fair value of the consideration transferred less the fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date.

Intangible assets are measured at cost less accumulated amortization, where applicable, and any impairment in value. Cost includes any expenditure that is directly attributable to the acquisition of the asset. The cost of internally developed assets includes the cost of materials and direct labour, and any other costs directly attributable to bringing the assets to a working condition for their intended use.

Assets are considered to have indefinite lives where management believes that there is no foreseeable limit to the period over which the assets are expected to generate net cash flows.

We test for impairment as follows:

The carrying amounts of our non-financial assets, other than deferred income tax assets and employee future benefit assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset’s recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives, or that are not yet available for use, are tested for impairment at least annually even if there is no indication of impairment, and the recoverable amount is estimated each year at the same time. The recoverable amount of an asset is the greater of its value-in-use and its fair value less costs of disposal. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the cash-generating unit, or CGU). For the purposes of goodwill impairment testing, goodwill acquired in a business combination is allocated to the CGU, or the group of CGUs, that is expected to benefit from the synergies of the combination and reflects the lowest level at which that goodwill is monitored for internal reporting purposes.

The cash flow projections cover a period of five years with the exception of *Capital Formation - Listings*, which covers seven years and Global Solutions, Insights and Analytics - Trayport, which covers eight years.

An impairment loss is recognized if the carrying amount of an asset, or its CGU, exceeds its estimated recoverable amount, which is the higher of asset's fair value less costs of disposal and its value-in-use. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGUs, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis. Impairment losses along with any related deferred income tax effects are recognized in the consolidated income statement.

There was no impairment charge for 2020 and 2021.

Considerable judgement is required to predict future operating performance and to estimate cash flows. Economic weakness due to macroeconomic factors moderating activity and heightening risks may impact our business. Such factors include political and civil uncertainty in Hong Kong as well as the tensions over trade deficits and technology companies between China and the United States, softened international trade and investment, the impact of COVID-19 on economic recovery and timing of recovery, and financial market pressures. These factors could result in future impairment charges related to goodwill and intangible assets. A significant impairment charge in the future could have a significant impact on our reported net income.

In 2021, management updated its growth projections. Based on current assumptions, the recoverable amount for Capital Formation - Listings, GSIA - TMX Datalinx, GSIA - Trayport, Equities Trading, Derivatives Trading and Clearing - MX/CDCC, CDS, and Other remains above carrying value, and as such no impairment has been identified for these CGUs. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount.

Business Combinations

Fair values of purchase consideration, assets acquired, and liabilities assumed in business combinations – for the acquisitions of subsidiaries, the fair values under the acquisition method are based on management's best estimates using established methodologies of the fair value of the assets and liabilities acquired and disposed.

For acquired customer relationships, trade names, and technology in particular, TMX Group estimates the fair value based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues attributable to acquired customer relationships, trade names, or technology, customer attrition rates, royalty-free rate, future expenses, and discount rates.

TMX Group estimates the fair value of its ownership interest in BOX Holdings using the income approach.. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues of the acquired business and discount rate.

SELECT ANNUAL INFORMATION

(in millions of dollars expect per share amounts)	2021	2020	2019
Revenue	$ **980.7**	$ **865.1**	806.9
Net income	**338.5**	**279.7**	247.6
Total Assets (as at December 31)	**63,199.4**	**36,098.6**	32,359.7
Non-Current Liabilities (as at December 31)	**1,974.3**	**1,706.0**	1,707.6
Earnings per share:			
Basic	**6.03**	**4.96**	4.42
Diluted	**5.99**	**4.91**	4.38
Cash dividends declared per common share	**3.01**	**2.72**	2.52

2021 compared with 2020

(See **RESULTS OF OPERATIONS** and **LIQUIDITY AND CAPITAL RESOURCES - Year ended December 31, 2021 (2021) compared with Year ended December 31, 2020 (2020)**).

2020 compared with 2019

Revenue

Revenue was $865.1 million in 2020, up $58.2 million or 7% compared with $806.9 million in 2019 attributable to increases in revenue from *Capital Formation, Equities and Fixed Income Trading and Clearing* as well as *Global Solutions, Insights and Analytics* offset by a decrease in *Derivatives Trading and Clearing* revenue.

Net income and Earnings per share

Net income in 2020 was $279.7 million, or $4.96 per common share on a basic and $4.91 per common share on a diluted basis, compared with a net income of $247.6 million, or $4.42 per common share on a basic and $4.38 on a diluted basis, for 2019. The increase in net income reflected an increase in income from operations of $33.5 million. The increase in income from operations from 2019 to 2020 was driven by an increase in revenue of $58.2 million, offset by an increase in operating expenses of $24.7 million. The increase in operating expenses was partly attributable to net litigation settlement costs of $12.4 million (16 cents per basic and diluted common share) in Q2/20. There was also an increase in our share of income from BOX. In addition, during 2019, there was an $18.0 million (32 cents per basic and diluted common share) non-cash impairment charge related to Shorcan.

The increase in net income and earnings per share was reduced by significantly higher income tax expense, and a higher effective income tax rate, in 2020 compared with 2019.

- During 2020, there was a change in the U.K. corporate income tax rate. This resulted in an increase in deferred income tax liabilities and a corresponding increase in income tax expense of $7.4 million, which reduced net income.

- In 2019, the Alberta general corporate income tax rate decreased. This change resulted in a decrease in net deferred income tax liabilities and a corresponding decrease in income tax expense of $4.3 million. In 2019, we incurred non-cash impairment charges of $18.0 million related to Shorcan, which is not deductible for income tax purposes. This resulted in an increase in our effective tax rate, which essentially offset the positive impact from the decrease in the Alberta general corporate income tax rate.

The increase in diluted earnings per share was somewhat reduced by an increase in the number of weighted-average common shares outstanding in 2020 compared with 2019.

Total Assets

Our consolidated balance sheet as at December 31, 2020 includes *Balances with Participants and Clearing Members* related to our clearing operations. These balances have equal amounts included within *Total Liabilities*. The increase in *Total Assets* of $3,738.9 million from December 31, 2019 reflected higher collateral balances in both CDS and CDCC at December 31, 2020 driven by the Bank of Canada requiring participants to post substantially more collateral (to address Cover 1 liquidity risk under Principles of Financial Market Infrastructure (PFMI)).

Non-Current Liabilities

Non-current liabilities as at December 31, 2020 were $1.6 million lower than as at December 31, 2019, reflecting lower lease liabilities partially offset by higher deferred income tax liabilities.

QUARTERLY FINANCIAL INFORMATION

(in millions of dollars except per share amounts - unaudited)	**Dec 31 2021**	**Sep 30 2021**	**Jun 30 2021**	**Mar 31 2021**	**Dec 31 2020**	**Sep 30 2020**	**Jun 30 2020**	**Mar 31 2020**
Capital Formation	$67.2	$60.2	$69.2	$61.1	$50.6	$50.2	$48.1	$40.1
Equities and Fixed Income Trading	29.4	25.9	29.4	40.9	30.6	28.5	34.7	33.2
Equities and fixed Income - clearing, settlement, depository and other services (CDS)	28.6	26.0	27.9	27.8	25.7	23.7	24.8	25.0
Derivatives Trading & Clearing	38.2	32.9	33.9	37.5	30.8	24.9	30.0	40.5
Global Solutions, Insights and Analytics	89.1	85.9	84.6	85.0	82.6	80.3	81.0	79.8
Other	(0.1)	0.4	—	(0.3)	(0.8)	—	(0.9)	1.7
Revenue	252.4	231.3	245.0	252.0	219.5	207.6	217.7	220.3
Operating expenses	136.2	121.9	112.1	119.3	113.4	107.2	119.3	109.3
Income from operations	116.2	109.4	132.9	132.7	106.1	100.4	98.4	111.0
Net income	87.9	76.9	77.3	96.4	71.8	70.0	67.8	70.1
Earnings per share								
Basic	1.57	1.37	1.38	1.71	1.27	1.24	1.20	1.25
Diluted	1.56	1.36	1.37	1.70	1.26	1.23	1.19	1.24

Q4/21 compared with Q4/20

- Revenue was $252.4 million in Q4/21, up $32.9 million or 15% from $219.5 million in Q4/20 attributable to increases in revenue from *Capital Formation, CDS, Derivatives Trading and Clearing, Global Solutions, Insights and Analytics,* and *Other* partially offset by a decrease in *Equities and Fixed Income Trading* revenue. Revenue for Q4/21 included approximately $8.6 million related to AST Canada (acquired August 12, 2021) and approximately

$0.8 million related to Tradesignal (acquired June 1, 2021). Revenue excluding AST Canada and Tradesignal increased by 11% from Q4/20 to Q4/21.

- *Operating expenses* in Q4/21 were $136.2 million, up $22.8 million or 20% from $113.4 million in Q4/20. There were approximately $13.3 million of expenses included in Q4/21 related to AST Canada (acquired August 12, 2021), including $1.5 million related to amortization of acquired intangibles (2 cents per basic and diluted share), $1.3 million related to the transitional services agreement (TSA) with AST, acquisition and related costs of $0.9 million (2 cents per basic and diluted share), as well as integration costs of $2.8 million (4 cents per basic and diluted share). The increase in costs was also attributable to higher headcount and payroll costs, increased short term employee incentive plan costs, higher legal costs, as well as increased recoverable expenses in Q4/21 compared with Q4/20. These increases were partially offset by lower severance costs of $2.0 million, lower long term employee performance incentive plan costs of $0.9 million, and acquisition and related costs related to AST Canada in Q4/20 of $0.4 million.

- *Income from operations* increased from Q4/20 to Q4/21 reflecting higher revenue partially offset by higher operating expenses.

- *Net income* in Q4/21 was $87.9 million, or $1.57 per common share on a basic and $1.56 on a diluted basis, compared with a net income of $71.8 million, or $1.27 per common share on a basic and $1.26 on a diluted basis for Q4/20. The increase in net income and earnings per share from Q4/20 to Q4/21 was largely driven by an increase in revenue partially offset by an increase in operating expenses. In Q4/21, there were integration costs related to AST Canada of approximately $2.8 million (4 cents per basic and diluted share), and acquisition and related costs of $0.9 million (2 cents per basic and diluted share). These decreases to net income were partially offset by $0.4 million of acquisition and related costs in Q4/20, and an increase in our share of income from BOX from Q4/20 to Q4/21. In addition, there was a $3.9 million reduction to income tax expenses related to TMX Atrium Wireless (sold April 2017), including a $2.9 million (5 cents per basic and diluted share) reversal of a deferred tax asset write-off from 2017. The increase in earnings per share was also partially attributable to a decrease in the number of weighted average common shares outstanding from Q4/20 to Q4/21.

Q4/21 compared with Q3/21

- *Revenue* was $254.4 million in Q4/21, up $21.1 million or 9% from $231.3 million in Q3/21 driven by higher revenue in *Capital Formation*, *Equities and Fixed Income Trading, CDS, Derivatives Trading & Clearing,* and *Global Solutions, Insights and Analytics* partially offset by slightly lower revenue in *Other*. There was also $8.6 million of revenue included in Q4/21 related to AST Canada (acquired August 12, 2021) compared with $5.1 million in Q3/21.

- *Operating expenses* in Q4/21 were $136.2 million, up $14.3 million or 12% from $121.9 million in Q3/21 due to higher severance of $2.8 million, higher software license and maintenance costs of $1.8 million, and higher short term employee performance incentive plan costs of $1.2 million. There were also increased marketing expenses, travel and entertainment, and professional services fees in Q4/21 compared with Q3/21. In addition, there were approximately $13.3 million of expenses included in Q4/21 related to AST Canada (acquired August 12, 2021), including $1.5 million related to amortization of acquired intangibles (2 cents per basic and diluted share), $1.3 million related to the TSA, acquisition and related costs of $0.9 million (2 cents per basic and diluted share), as well as integration costs of $2.8 million (4 cents per basic and diluted share).

  These increases in operating expenses were partially offset by lower long term incentive plan costs of $2.1 million.

- *Income from operations* increased from Q3/21 to Q4/21 reflecting higher revenue partially offset by higher operating expenses.

- *Net income* in Q4/21 was $88.9 million, or $1.57 per common share on a basic and $1.56 on a diluted basis, compared with net income of $76.9 million, or $1.37 per common share on a basic and $1.36 on a diluted basis for Q3/21. The increase in net income from Q3/21 to Q4/21 was driven by higher income from operations as well as a decrease in income tax expense of $3.9 million relating to the carryforward of net operating losses related to TMX Atrium Wireless (sold April 2017) that was not previously recognized.

Q3/21 compared with Q2/21

- *Revenue* was $231.3 million in Q3/21, down $13.7 million or 6% from $245.0 million in Q2/21 primarily attributable to lower revenue in *Capital Formation*, *Equities and Fixed Income Trading*, *CDS*, and *Derivatives Trading & Clearing*, partially offset by higher revenue in *Global Solutions, Insights and Analytics* and *Other*. There was also $5.1 million of revenue included in Q3/21 related to AST Canada (acquired August 12, 2021).

- *Operating expenses* in Q3/21 were $121.9 million, up $9.8 million or 9% from $112.1 million in Q2/21 due to higher short term employee performance incentive plan costs of $2.5 million, higher long term incentive plan costs of $1.7 million, and increased headcount and payroll costs of $1.3 million. There were approximately $7.5 million of expenses included in Q3/21 related to AST Canada (acquired August 12, 2021), including $0.5 million related to amortization of acquired intangibles (1 cent per basic and diluted share), $0.7 million related to the TSA, acquisition and related costs of $1.1 million (2 cents per basic and diluted share), as well as integration costs of $0.6 million (1 cent per basic and diluted share).

  These increases in operating expenses were partially offset by lower director fees, decreased severance, and bad debt expenses. There was also a $1.8 million decrease in expenses largely relating to a release of a provision for restoration costs for our data centre in Q2/21.

- *Income from operations* decreased from Q2/21 to Q3/21 reflecting lower revenue and higher operating expenses.

- *Net income* in Q3/21 was $76.9 million, or $1.37 per common share on a basic and $1.36 on a diluted basis, compared with net income of $77.3 million, or $1.38 per common share on a basic and $1.37 on a diluted basis for Q2/21. The slight decrease in net income from Q2/21 to Q3/21 was mainly attributable to lower *income from operations* from Q2/21 to Q3/21, somewhat offset by an increase in income tax expense of $19.8 million relating to an increase in the U.K corporate income tax rate in Q2/21.

Q2/21 compared with Q1/21

- *Revenue* was $245.0 million in Q2/21, down $7.0 million or 3% from $252.0 million in Q1/21 primarily attributable to lower revenue in E*quities and Fixed Income Trading,* and *Derivatives Trading & Clearing*, partially offset by higher revenue in *Capital Formation.*

- *Operating expenses* in Q2/21 were $112.1 million, down $7.2 million or 6% from $119.3 million in Q1/21. The decrease in costs was driven by lower short term employee performance incentive plan and sales commissions costs of $3.3 million, lower payroll costs of $3.1 million, and lower long term performance incentive plan costs of $1.6 million. In addition, there was a $1.8 million decrease in expenses largely relating to the release of a provision for restoration costs for our data centre in Q2/21. These decreases in expenses were partially offset by higher director fees, increased software license and maintenance costs, and higher bad debt expenses.

- *Income from operations* increased slightly from Q1/21 to Q2/21 due to lower operating expenses largely offset by lower revenue.

- *Net income* in Q2/21 was $77.3 million, or $1.38 per common share on a basic and $1.37 on a diluted basis, compared with net income of $96.4 million, or $1.71 per common share on a basic and $1.70 on a diluted basis for Q1/21. The decrease in net income and earnings per share from Q1/21 to Q2/21 was primarily attributable to an increase in income tax expense of $19.8 million relating to an increase in the U.K. corporate income tax rate, partially offset by a $1.3 million increase in our share of income from BOX from Q1/21 to Q2/21.

Q1/21 compared with Q4/20

- *Revenue* was $252.0 million in Q1/21, up $32.5 million or 15% from $219.5 million in Q4/20 attributable to increases in revenue across all our operating segments.

- *Operating expenses* in Q1/21 were $119.3 million, up $5.9 million or 5%, from $113.4 million in Q4/20. The increase in costs was primarily attributable to increased payroll taxes of $3.8 million, increased pension expenses of $2.9 million, higher headcount, higher short term employee performance incentive plan and sales commissions costs of $0.9 million, and higher long term performance incentive plan costs of $0.8 million. These increases in operating expenses were partially offset by lower severance costs of $2.8 million in Q1/21, the write-off of costs related to discontinued initiatives in Q4/20, and lower information technology professional services costs.

- *Income from operations* increased from Q4/20 to Q1/21 largely due to higher revenue partially offset by higher operating expenses.

- *Net income* in Q1/21 was $96.4 million, or $1.71 per common share on a basic and $1.70 on a diluted basis, compared with a net income of $71.8 million, or $1.27 per common share on a basic and $1.26 on a diluted basis, for Q4/20. The increase in net income and earnings per share from Q4/20 to Q1/21 was driven by an increase in *income from operations* of $26.6 million. There was also a significant increase in our share of income from BOX from Q4/20 to Q1/21.

Q4/20 compared with Q3/20

- *Revenue* was $219.5 million in Q4/20, up $11.9 million or 6% from $207.6 million in Q3/20 largely attributable to increases in revenue from *Capital Formation, Equities and Fixed Income Trading, CDS, Derivatives Trading & Clearing,* and *GSIA* partially offset by lower *Other* revenue.

- *Operating expenses* in Q4/20 were $113.4 million, up $6.2 million or 6%, from $107.2 million in Q3/20. The increase reflected higher severance costs of $3.4 million, increased short term employee performance incentive plan costs, higher software license and information technology professional services costs, the write-off of costs related to discontinued initiatives and increased marketing costs. In addition, the recovery in a commodity tax provision, which reduced operating expenses, was $0.2 million in Q4/20 compared with $1.3 million in Q3/20. These increases were somewhat offset by decreases in long term employee performance incentive plan costs and lower COVID-19 pandemic related costs. Transaction related costs pertaining to the proposed AST Canada acquisition declined by $1.1 million from Q3/20 to Q4/20.

- *Income from operations* increased from Q4/20 to Q3/20 largely due to the higher revenue somewhat offset by higher operating expenses.

- *Net income* in Q4/20 was $71.8 million, or $1.27 per common share on a basic and $1.26 on a diluted basis, compared with a net income of $70.0 million, or $1.24 per common share on a basic and $1.23 on a diluted basis, for Q3/20. The increase in net income and earnings per share was driven by the higher *income from operations* in Q4/20 compared with Q3/20. This increase was partially offset by a loss of $0.9 million in equity accounted investees in Q4/20 compared to a gain of $2.9 million in Q3/20. This was driven by an expense of approximately $5.1 million representing our share of BOX's long term employee performance incentive plan costs for 2020 which were recorded in Q4/20.

Q3/20 compared with Q2/20

- *Revenue* was $207.6 million in Q3/20, down $10.1 million or 5% from $217.7 million in Q2/20 largely attributable to decreases in revenue from *Equities and Fixed Income Trading and Clearing, Derivatives Trading and Clearing, and GSIA, excluding Trayport,* largely offset by increases in revenue from both *Capital Formation* and *Trayport.*

- *Operating expenses* in Q3/20 were $107.2 million, down $12.1 million or 10%, from $119.3 million in Q2/20. The decrease was largely attributable to a decline in *Selling, general and administration* expenses, which included $12.4 million of net litigation settlement costs in Q2/20. Increases in short term employee performance incentive plan costs, severance, consulting fees and transaction related costs of $1.4 million were largely offset by decreases in long term employee performance incentive plan costs, bad debt expense, the reversal of a commodity tax provision of $1.3 million and lower COVID-19 pandemic related costs.

- *Income from operations* increased from Q2/20 to Q3/20 largely due to the lower operating expenses largely offset by lower revenue.

- *Net income* in Q3/20 was $70.0 million, or $1.24 per common share on a basic and $1.23 on a diluted basis, compared with a net income of $67.8 million, or $1.20 per common share on a basic and $1.19 on a diluted basis, for Q2/20. The increase in net income and earnings per share was driven by the higher *income from operations* in Q3/20 compared with Q2/20.

Q2/20 compared with Q1/20

- *Revenue* was $217.7 million in Q2/20, down $2.6 million or 1% from $220.3 million in Q1/20 largely attributable to decreases in revenue from *Derivatives Trading and Clearing, CDS, Trayport,* as well as *Other* revenue, largely offset by increases in *Capital Formation, Equities and Fixed Income Trading* and *GSIA, excluding Trayport.*

- *Operating expenses* in Q2/20 were $119.3 million, up $10.0 million or 9%, from $109.3 million in Q1/20. The increase was largely related to net litigation settlement costs. There were also higher short term employee performance incentive plan, recruitment and COVID-19 pandemic related costs, which were offset by lower salary and benefits costs and reduced travel and entertainment expenses from Q1/20 to Q2/20.

- *Income from operations* decreased from Q1/20 to Q2/20 largely due to the lower revenue and higher operating expenses.

- *Net income* in Q2/20 was $67.8 million, or $1.20 per common share on a basic and $1.19 on a diluted basis, compared with a net income of $70.1 million, or $1.25 per common share on a basic and $1.24 on a diluted basis, for Q1/20. The decrease in net income and earnings per share was driven by the lower *income from operations* in Q2/20 compared with Q1/20. During Q1/20, there was a change in the expected U.K. corporate income tax rate. This resulted in an increase in deferred income tax liabilities and a corresponding increase in income tax expense of $7.4 million, which reduced net income for Q1/20. The decrease in basic and diluted earnings per share was also due to an increase in the number of weighted-average common shares outstanding in Q2/20 compared with Q1/20.

ENTERPRISE RISK MANAGEMENT

Executive Summary

TMX Group provides essential services to the Canadian capital and global commodity markets and effectively managing risks and objective certainty[41] is fundamental to our ability to execute on our enterprise and business strategies. The purpose of enterprise risk management (ERM) is to facilitate and support the businesses in their pursuit of their objectives to ensure the outcomes of these activities are transparent and understood, consistent with our risk appetite, appropriately balance risk and reward, and serve as inputs into the enterprise strategy formulation process.

We have identified a number of principles which guide our management of risks, including the following:

- We promote and maintain an enterprise-wide ethical culture that values the importance of effective risk management in day-to-day business activities and decision making, and encourages frank and open communication.
- Our business units and corporate functions own the objectives, and therefore risks, assumed in their activities and are accountable for the effective management of those risks, supported by the risk management and internal audit functions. TMX uses Five Lines of Accountability (see below) which enhances the Three Lines model while recognizing the role of senior management and the Board in risk management. We define these roles and responsibilities and associated levels of authority for risk-taking across the enterprise.
- We employ effective and consistent risk management processes across the enterprise to ensure that objectives and risks are transparent, well understood, and remain within an accepted and approved level of risk appetite.
- We employ sufficient resources and effective tools, methods, models and technology to support our risk management processes.
- Our ERM framework reflects industry standards and legal and regulatory requirements, and is regularly reassessed.

Effective risk management is fundamental to our ability to drive long-term sustainable growth through the execution of our strategic and operational objectives. Our Objective Centric Risk Management (“OCRM”) approach to risk management addresses opportunities, uncertainties and threats to the successful achievement of our objectives rather than managing our risks in isolation. This OCRM approach to risk management does not change the risks faced by our organization. Instead, it anchors the risk management process to our objectives which supports the proper allocation of resources across the enterprise. As illustrated in the diagram below, using OCRM requires senior management, under the supervision of the Board, to (i) clearly define roles across the businesses; (ii) explicitly specify risk and assurance requirements; and (iii) determine the business objectives that warrant more formal and visible risk assessment processes. This ensures the integration of the enterprise's objectives, risks, risk treatments, and performance. The Board has established a set of enterprise objectives and the Strategy and Risk Committee (“SRC”), a management committee of TMX Group, determines the key risks to the successful achievement of our objectives, identifies new or emerging risks, evaluates our execution strategy and allocates resources as required.

[41] TMX has adopted an Objective Centric Risk Management ("OCRM") approach where the emphasis is on Objective Certainty rather than risk registers. OCRM is an approach to managing risks that is anchored in objectives through an integrated approach that aligns risk activities to strategies, objectives and performance. It reaffirms responsibility for risk to individuals who are responsible for achieving the objectives.

Key risks identified are:

Market and Macroeconomic Risk: A significant portion of our revenue comes from trading revenue. Similar to other exchanges, this is highly sensitive to macroeconomic conditions. Canada is our largest geographic concentration of revenue. Given the majority of business is conducted domestically, macroeconomic factors such as GDP growth, regulations, interest rates, volatility, and market activity, can impact our business.

Cyber Risk: Our processes and networks and those of our third-party service providers may be vulnerable to information risks, including unauthorized access, computer viruses, denial of service attacks, and other security issues. Remote working necessitated by the COVID-19 pandemic has placed a greater emphasis on the integrity and capacity of our networks. Attempted cyber attacks were on the rise in 2021 and a successful cyber scam or attack could adversely impact our business.

Pandemic Risk: The economic and market conditions in Canada, the United States, Europe, Asia and the rest of the world impact different aspects of our business and our revenue drivers. The COVID-19 pandemic has created significant volatility, uncertainty and economic disruption, which may adversely affect our business, financial condition, liquidity, results of operations and long-term financial objectives. Listing, trading and clearing activities can be significantly affected by economic, political and market conditions as well as the overall level of investor confidence. These factors can impact the level of initial public offerings, secondary financings, market capitalization of our issuers, transfer agent and trustee services, trading volumes, energy data and network connectivity, client hosting revenue, and sales of market data across our markets. This can also lead to slower collections of accounts receivable as well as increased counterparty risk which, in turn, could adversely affect our business. Additionally, if we are required to suspend trading for a prolonged period of time or shorten trading hours, our business, operating results, long term financial objectives, cash flows, or financial condition could be materially adversely affected.

While key initiatives continue, some could be delayed or postponed indefinitely due to lack of availability of clients, regulators or third parties for effective engagement and business development. Although we continue to plan and engage with these key external stakeholders, their level of readiness and commitment is outside of our control; therefore, revenues could be lower than anticipated.

In response to COVID-19, the vast majority of our staff are working remotely, which may increase our exposure to cyber security and operational risks. The impacts of the pandemic could also materially interrupt our business operations and cause material financial loss, human resource constraints, result in adverse regulatory actions, lead to delays in obtaining regulatory or government approvals, interrupt services received from third parties or provided to clients, [and/or] result in reputational harm or legal liability. This in turn could materially adversely affect our business, cash flows, financial condition, operating results and long-term financial objectives. While all our business units and corporate functions have business continuity plans to support critical operations and mitigate such risks, a prolonged interruption in our key services could materially adversely affect our reputation, business, operating results, long term financial objectives, cash flows, and financial condition.

Competition Risk: We compete with other exchanges domestically and internationally on listings, cash equities, equity option trading, trade matching and execution vendors. Muted capital markets activity may result in lower revenue related to capital raising activities. Additionally, competing vendors could reduce the number of venue customers, subscribers and our ability to enter new markets.

Execution Risk: We are exposed to the risk that we lack capabilities or fail to prioritize initiatives to deliver against our strategy and objectives in an efficient and effective manner. Additionally, if we do not engage external stakeholders sufficiently we may fail to ensure alignment and readiness on key initiatives.

Concentration Risk: A large portion of the Canadian economy is based in natural resources and energy related business and as such, we are exposed to downturns in these sectors as they can impact capital formation business and the trading and clearing activity.

Key Person and Employee Retention Risk: Should key senior management positions become vacant there could be a loss of knowledge and expertise resulting in risk to executing our strategy. Additionally, if there is an increase in employee turnover or we receive fewer candidates for open positions there may be a need for some businesses to adjust initiatives or there may be an increase in operational incidents.

Advancing Sustainability and Environmental, Social and Governance (ESG) Initiatives Risk: We have set about the work of integrating ESG objectives and initiatives into TMX Group's core objectives and with the goal of positioning TMX Group as a leading marketplace for sustainable investment and finance with our products and services. Key sustainability and ESG related risks include business resilience, client concentration and natural resource and energy-related businesses, cybersecurity and information technology and talent management. Should we fail to embed this work, it could have negative reputational, strategic and financial implications on our multiple and valuation.

A key risk we face is our ability to adapt given the multiple degrees of change happening at an accelerated pace in today's society which requires us to look for areas of opportunity despite the challenges, and factor potential scenarios into our planning.

These risks and uncertainties are further expanded upon below. The risks and uncertainties discussed in this section are not the only ones facing TMX Group. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business. If any of the following risks actually occur, our reputation, business, financial condition, or operating results could be adversely affected.

Competition Risk

We are exposed to the risk that established and new competitors, including disruptive technology providers, will challenge our business model and objectives.

Our Capital Formation business competes with other exchanges and other financing platforms

We compete for listings with North American exchanges in a broad range of sectors and also internationally, particularly for resource companies and small and medium sized enterprises. We also face competition from North American and international exchanges for Canadian listings. Domestically, we currently compete for listings with two other exchanges.

We also compete with institutions and various market participants that offer alternative forms of financing including private equity, venture capital and various forms of debt financing. Many of these alternative forms of financing and our traditional domestic competitors may subject issuers to different regulatory rules and oversight and different obligations from those associated with being listed on our markets.

TSX, TSXV and TSX Alpha Exchange face competition from other exchanges, other marketplaces and trading mechanisms

We face competition for business from other exchanges, especially those in the U.S. as investing becomes more global. In particular, these competitors could look to attract Canadian issuers that are listed on one of our exchanges. For example, two of our U.S.-based competitors operate a Canadian market. It is possible that these competitors could, in addition to competing for listing and trading of Canadian issuers, enter into other business areas in which we currently operate.

In addition, the variety of other marketplaces and trading venues in the U.S. that trade Canadian securities, including dark markets and internalization facilities, places increasing competitive pressure on our business. For example, some market participants in the U.S., known as wholesalers, are currently able to pay our customers for order flow under U.S. securities laws and regulations. This practice is not permitted in Canada, and therefore puts us at a competitive disadvantage. IIROC published guidance and a technical notice to clarify the requirements for investment dealers when orders in Canadian-listed securities are executed away from Canadian markets, an important step in IIROC's approach to addressing concerns about the routing of orders to the U.S. If we are unable to continue to provide competitive trade execution, the volume traded in all interlisted issuers on our equity exchanges could decrease in the future and adversely affect our operating results. Our combined market share (including TSX, TSXV, and Alpha) of the total volume traded in Canadian based interlisted issues was approximately 30% in 2021, down slightly from 31% in 2020. Our cash equities sales team is focused on attracting more foreign participants and order flow by raising the level of awareness of the benefits of trading on TSX, TSXV and Alpha.

Domestic competition in our cash equities trading business has intensified over the last few years, namely with US operator CBOE acquiring key assets in Canada. There are currently 15 Canadian equity marketplaces which trade TSX and/or TSXV listed securities, including dark and visible trading venues. There are also sophisticated mechanisms to internalize order flow, liquidity aggregators and smart order routers that facilitate trading on other venues. New market entrants have fragmented domestic equities market share and we continue to face significant competitive pressure from existing venues, and potential new entrants. Excluding intentional crosses, in the issues we trade, our combined domestic equities trading market share was 65%[42] in 2021, down from 67% in 2020. We only trade securities that are listed on TSX or TSXV. Excluding intentional crosses, in all listed issues in Canada, our combined domestic equities trading market share was 53% in 2021, down from 59% in 2020.

[42] Source: IIROC

These trading venues may, among other things, respond more quickly to competitive pressures, develop similar or alternative products and services to those that TSX, TSXV and Alpha offer that are preferred by customers, develop and expand their network infrastructures and offerings more efficiently, adapt more swiftly to new or emerging technologies and changes in customer requirements, and adopt better, more user friendly and reliable technology. If these trading venues attract significant order flow, or other market structure changes occur in the marketplace which negatively impacts our ability to effectively compete, our listing, trading and GSIA revenue could be materially adversely affected.

There is also intense price competition in the cash equities markets where competitors may price their trading and data products more attractively. While we have developed a pricing mix to attract greater liquidity to our markets, the competitive environment in which we operate places significant pricing pressures on our trading and market data offerings. Some competitors may seek to increase their share of trading by reducing their transaction fees, by offering larger liquidity payments, by offering inverted pricing and/or by offering other forms of financial or other incentives. We have in the past lowered our equity trading fees and we may, in the future, be required to adjust our pricing to respond to competitive pricing pressure. If we are unable to compete successfully with respect to the pricing of our offerings, our business, financial condition and results of operations could be materially adversely affected.

MX and CDCC face competition from other venues and OTC markets

While MX is the only Canadian financial derivatives exchange offering standardized products and CDCC the only clearing house headquartered in Canada clearing such products, their various component activities are exposed. MX already competes with, among others, cross-listed options and other derivatives exchanges as well as the OTC market. This competition from other exchanges exists particularly in the US, but also in Europe and Asia. For example, in the U.S., MX competes for market share of trading single stock options on Canadian-based inter-listings, or dual listings. However, options traded in the U.S. are not fungible with those traded in Canada. In addition, OTC regulatory reform that is underway in Canada could encourage the entry of new competition within the Canadian clearing space. OTC inter-dealer and dealer-to-client trading platforms represent increased competitive risk to MX with their lookalike and substitute products. We may, in the future, also face competition from other Canadian marketplaces. These competitors may, among other things, respond more quickly to competitive pressures, develop similar products to those MX offers that are preferred by customers or they may develop alternative competitive products. Furthermore, they may price their products more competitively, develop and expand their network infrastructures and offerings more efficiently, adapt more swiftly to new or emerging technologies and changes in customer requirements and use better, more user friendly and reliable technology. Increased competition could lead to reduced interest in MX's products which could materially adversely affect our business and operating results.

The Canadian clearing services market may become more competitive as some competitors receive recognition or exemption orders from regulators to operate as clearing agencies. Provincial regulators have also exempted from recognition in their respective province a number of foreign clearing agencies, allowing those exempted clearing agencies to provide clearing services to participants in the province under the terms of the applicable exemption orders, including Eurex Clearing AG and Chicago Mercantile Exchange Inc.

Increasing regulatory requirements imposed upon banks through higher capital requirements imposed under the Basel regulatory framework, which increase the costs of acting as a futures clearing agent on behalf of end customers may make clearing services more challenging for end customers to obtain, which could limit growth in the futures clearing business. Other major competitors may gain some of this business as they have started to offer clearing services directly to end customers, attenuating challenges end customers may face in obtaining clearing agent services from banks.

The derivatives trading industry is characterized by intense price competition. While our derivatives markets have developed a pricing mix to attract greater liquidity to these markets while maintaining our average price per contract, market conditions may result in increased competition which, in turn, may place significant pricing pressures in the future. Some competitors may seek to increase their share of trading by reducing their transaction fees, by offering larger liquidity payments or by offering other forms of financial or other incentives. Our business, financial condition and results of operations could be materially adversely affected as a result of these developments.

Shorcan faces competition from OTC markets and other sources

Shorcan has several competitors in the Canadian fixed income Inter-Dealer Broker ("IDB") market. If Shorcan fails to attract institutional dealer order flow from this market, it could adversely affect its business and operating results.

Global Solutions, Insights and Analytics faces competition in bringing products to market

We face competition in market data, from other trading venues and vendors who aggregate and consolidate data. Market data is generated from trading activity and the success of certain data products is linked to maintaining order flow and majority market share. With the entry of new participants offering discounted market data products, we face risks to our client base which may adversely impact revenue.

Competition in analytics is extremely fierce and we face competition with traditional channel partners who distribute our data, fintechs, startups and as well as with our end consumers who choose to build their own analytics internally. It is important to protect our intellectual property around the content we generate while maintaining flexibility in users' approaches to maintain growth.

Trayport faces competition from other trade matching and execution vendors

Trayport has competition from other vendors who offer matching and execution tools for brokers, exchanges and traders in its core European energy markets and in new global markets and asset classes Trayport looks to enter. Success of these competitor vendors could reduce the number of Trayport venue customers and total subscribers, and limit the ability for Trayport to enter new markets.

Trayport's venue customers face competition from other venues or trading platforms and a reduction in Trayport's customers market share or liquidity could lead to a reduction in Trayport subscriber numbers.

Trayport also faces competition from venues who may attempt to make it more difficult for Trayport's customers to access venue data via the Trayport platform in an attempt to prioritize trade execution directly on their venue platform or away from Trayport. This could lead to a reduction in subscriber numbers, more difficulty in converting sales opportunities and expanding into new geographies.

Economic Risk

We are exposed to the risk that the macroeconomic and industry conditions (among others, the commodity cycle and economic growth) will challenge our business model and objectives.

We depend on the economy of Canada

Our financial results are, and continue to be affected by the Canadian economy, including by commodity prices in the resource sector. Any prolonged economic downturn, could have a significant negative impact on our business. We have increased our focus on the innovation sector. However, capital required by issuers in this sector is often lower than that raised by issuers in the resource sectors. If the profit growth of Canadian-based companies is generally lower than the profit growth of companies based in other countries, the markets on which those other issuers are listed may be more attractive to investors than our equity exchanges. A large portion of the Canadian economy is based in natural resources and energy related businesses. As such, we are exposed to macroeconomic factors that impact these sectors, including those driven by environmental regulations and the growth of sustainable investing. We are providing ESG education sessions and resources to connect, encourage and support our clients in their ESG practices. Nonetheless, a prolonged economic downturn may have a negative impact on investment performance, which could materially adversely affect the number of issuers and new listed issuers, the market capitalization of our listed issuers, additional

securities being listed or reserved, trading volumes across our markets, the number of transactions related to our equity and fixed income clearing and settlement, depository, custodial and entitlement services and market data sales.

Our operating results may be adversely impacted by global economic conditions

The economic and market conditions in Canada, the United States, Europe, Asia and the rest of the world impact the different aspects of our business and our revenue drivers. In particular, lower commodity prices, can, and have, negatively impacted our business. Changes in the economy, including COVID-induced supply constraints, inflation and political climate in the United States and Asia Pacific, including changes relating to trade agreements, could impact our business. In addition, increased uncertainty in Europe, and the possibility of sovereign defaults on debt, may also impact our business, including that of Trayport. Tensions over trade deficits and technology companies between China and the United States may impact growth plans in Asia in the short term. Because listing, initial and additional financing, trading and clearing activities are significantly affected by economic, political and market conditions and the overall level of investor confidence, they impact the level of listing activity (including IPOs), the market capitalization of our issuers, trading and clearing volumes and sales of data across our markets. In addition, our clearing customers face higher credit costs associated with complying with margining regimes which could result in lower volumes.

Global market and economic conditions have fluctuated in recent years, and we have witnessed both high and low levels of volatility. While higher volatility in markets can generate increased transaction volume, when coupled with prolonged negative economic conditions higher volatility can adversely affect trading volumes and the demand for market data and can lead to slower collections of accounts receivable as well as increased counterparty risk which, in turn, could adversely affect our business, financial condition, and operating results. A low-volatility environment can result in lower levels of trading and clearing, particularly for derivative products, placing downward pressure on operating results.

We depend on market activity that is outside of our control

Our revenue is highly dependent upon the level of activity on our exchanges and clearing houses, including: the volume of securities traded on our cash markets; the number of transactions, volume of contracts or products traded and cleared on our derivatives markets; the number and market capitalization of listed issuers; the number of new listings; the number of active traders and brokerage firms; the number of transactions related to our equity and fixed income clearing and settlement, depository services; and the number of subscribers to market data and Trayport services.

We do not have direct control over these variables. Among other things, these variables depend upon the relative attractiveness of securities listed and traded on our exchanges and the relative attractiveness of our exchanges as a place to list and trade those securities as compared to other exchanges and other trading mechanisms. Those variables are in turn influenced by:

- the overall economic conditions and monetary policies in Canada, the United States, Europe, Asia, and in the world in general (especially growth levels, political stability and debt crisis);
- broad trends in business and corporate finance, including trends in the exchange industry, capital market trends and the mergers and acquisitions environment;
- the economic health of the resource sector;
- the level and volatility of interest rates and resulting attractiveness of alternative asset classes;
- the regulatory environment for investment in securities and derivatives, including the regulation of marketplaces and other market participants, both in Canada and other jurisdictions;
- the relative activity and performance of global capital markets;

- investor confidence in the prospects and integrity of our listed issuers, and the prospects of Canadian-based listed issuers in general;
- pricing volatility of global commodities and energy markets; and
- changes in tax legislation that would impact the relative attractiveness of certain types of securities or derivatives, or listing in certain countries.

We may be able to indirectly influence the volume of trading and clearing by providing efficient, reliable and cost effective trading and clearing; maximizing the availability of timely, reliable information upon which research, advice and investment decisions can be based; and maximizing the ease of access to listings, trading and clearing facilities. However, those activities may not have a positive effect on or effectively counteract the factors that are outside of our control. We face a risk that regulators may impose higher burdens on our clients that could impinge on their ability to invest.

Strategic Risk

We are exposed to the risk of attaining sub-optimal enterprise business performance due to:

Opportunity Cost Risk: failure to develop, assess and select optimal pathways for portfolio-level success in context of enterprise capabilities, resources, and the external environment

Implementation Risk: failure to commit to chosen pathways and translate them into clear actions and goals

Execution and Change Management Risk: failure to execute committed plans, identify changes in the strategic context of the business with sufficient foresight, and to develop, select and execute effective responses

Our strategic planning processes may not enable us to identify and properly respond to opportunities or threats resulting in our inability to develop new products and services that meet clients' evolving needs

Our strategic planning process includes a thorough analysis of the business context in which we operate as well as significant peer and competitive analysis. While we regularly test the key assumptions underlying our strategic plan, it is possible that we may not identify or respond to opportunities or threats in our industry despite the investment of time and resources in this process.

Execution Risk

We are exposed to the risk that we lack capabilities or fail to prioritize initiatives to deliver against our strategy and objectives in an efficient and effective manner. It is possible that our capital allocation decisions may not be optimal.

We may not be successful in executing our strategy

We invest significant resources in the development and execution of our corporate strategy to grow profitability and maximize shareholder value. We may not succeed in executing our strategies effectively because of, among other things, turbulent market conditions, increased global competition, inability to mobilize or co-ordinate internal resources on a timely basis, difficulty developing and introducing products or regulatory restrictions. In addition, we may have difficulty obtaining financing for new business opportunities, due to financial restrictions that currently or may in the future be placed on TMX Group under our Commercial Paper Program, Debentures, Credit Facility,

Recognition Orders and under our regulatory oversight agreements. While we have established processes and tools for effective and rigourous oversight of our key initiatives, any of these factors could materially adversely affect the successful execution of our strategies. Inadequate succession planning could slow the successful execution of our strategy. The execution of our strategy could also be impacted if we failed to respond quickly to a changing landscape.

New business activities may adversely affect income

We may enter new business activities which, while they could provide opportunities for us, may also impose restrictions on us and/or have an adverse effect on our existing profitability. While we would expect to realize new revenue from these new activities, there is a risk that this new revenue would not be greater than the associated costs or any related decline in existing revenue sources.

Expansion of our operations internationally involves unique challenges that we may not be able to meet

We continue to expand our operations internationally, including making acquisitions, opening offices and acquiring distribution, technology and other systems in foreign jurisdictions, and obtaining regulatory authorizations or exemptions to allow remote access to our markets by approved participants outside Canada. We expect that the expansion of access to our electronic markets will continue to increase the portion of our business that is generated from outside Canada. We face certain risks inherent in doing business in international markets, particularly in the regulated exchange and clearing businesses. These risks include, but are not limited to:

- restrictions on the use of trading terminals direct connectivity to our marketplace or the contracts that may be traded;
- geopolitical unrest;
- reduced protection for intellectual property rights;
- difficulties in staffing and managing foreign operations;
- potentially adverse tax consequences;
- enforcing agreements and collecting receivables through certain foreign legal systems; and
- foreign currency fluctuations for international business.

We would be required to comply with the laws and regulations of foreign governmental and regulatory authorities of each country in which we need to obtain authorizations or exemptions for remote access to our markets. These may include laws, rules and regulations relating to any aspect of the business. In many cases, the additional costs related to compliance can be substantial, and could outweigh the potential benefits. International expansion may expose TMX Group to geographic regions that may be subject to greater political, economic and social uncertainties than countries with developed economies.

Any of these factors could have a material adverse effect on the success of our plans to grow our international presence and market products and services and consequently on our business, financial condition and results of operations.

Integration/Divestitures Risk

We are exposed to the risk that we fail to integrate acquisitions to achieve the planned economics or divest under-performing businesses effectively.

We face risks associated with integrating the operations, systems, and personnel of acquisitions

As part of our strategy to sustain growth, we have and expect to continue to pursue appropriate acquisitions of other companies and technologies. An acquisition will only be successful if we can integrate the acquired businesses' operations, products and personnel; retain key personnel; and expand our financial and management controls and our reporting systems and procedures to accommodate the acquired businesses. It is possible that integrating an acquisition could result in less management time being devoted to other parts of our core business. In addition, pursuant to the Final Recognition Orders[43], prior regulatory approval is required before TMX Group can implement significant integration, combination or reorganization of businesses, operations or corporate functions among TMX Group entities. The requirement to obtain these approvals may restrict or delay TMX Group's ability to make planned changes to these aspects of its operations in the future which could have a material adverse effect on TMX Group's business, financial condition and results of operations. If an investment, acquisition or other transaction does not fulfill expectations, we may have to write down its value in the future and/or sell at a loss.

We face risks associated with not being able to divest under-performing businesses

As part of our normal course of operations and strategic review processes, we may from time to time identify underperforming assets or businesses that we choose to divest.

Similar to integration risks, we also face the risks of not divesting under-performing businesses in a timely and effective manner to enable better utilization of our capital and other resources.

Operational Risks

Technology Risk

We are exposed to the risk that our technology and underlying IT processes do not enable us to develop and/or deliver our products and services effectively.

We depend heavily on information technology, which could fail or be subject to disruptions

We are extremely dependent on our information technology systems. Trading and data on our cash equities markets, data on energy markets, trading, clearing and data on our derivatives markets and clearing, settlement and depository activity for equities and fixed income securities are conducted exclusively on an electronic basis.

We have incident and disaster recovery and contingency plans as well as back-up procedures to mitigate the risk of an interruption, failure or disruption, including those due to cyber attacks on our critical information technology including that of TSX, TSXV, Alpha, MX, Trayport, CDCC and CDS. We also test and exercise our disaster recovery plans. However, depending on an actual failure or disruption, those plans may not be adequate as it is difficult to foresee every possible scenario and therefore, we cannot entirely eliminate the risk of a system failure or interruption. We have experienced occasional information technology failures and delays in the past, and we could experience future information technology failures, delays or other interruptions.

The current technological architecture for our clearing system may not effectively or efficiently support our changing business requirements.

[43] Recognition orders issued by the securities regulators with respect to the Maple Transaction.

We are heavily invested in a Post Trade Modernization project; the significant delay, material increase of costs or failure of which may impact participant, regulator or market confidence. Additionally, the project may be further postponed if other important industry project timelines are prioritized.

We are continually improving our information technology systems so that we can accommodate increases and changes in our trading, clearing, settlement and depository activities and market data volumes to respond to customer demand for improved performance. This requires ongoing analysis and expenditures, and may require us to expend significant amounts of resources in the future. System changes, including the introduction of new technologies, may introduce risk; while we have and continue to follow, standard deployment processes for managing and testing these changes, we cannot entirely eliminate the risk of a system failure or interruption.

If the TMX Quantum XA trading enterprise, the SOLA derivatives trading enterprise, the SOLA Clearing platform, or CDS's CDSX system fail to perform in accordance with expectations, our business, financial condition and operating results may be materially adversely affected.

Information Security and Privacy Risk

We are exposed to the risk that information security breaches will adversely affect the operations, intellectual property and reputation of TMX Group.

Cyber threats continue to evolve and increase around the world. In addition to the growing threat posed by ransomware, double-extortion schemes, and the withdrawal of insurance coverage for increasingly costly ransom payments, state-sponsored actors are now more involved in cyber-attacks and cyber espionage. These sophisticated attacks target supply chains, cloud infrastructure or weak public facing applications and, in many cases, leave little behind in the way of footprints to be identified by traditional computer forensic analysis. Finally, insider threats can be malicious or unintended, the latter typically originating from lack of awareness or improper operationalization of security policies.

Our processes and networks and those of our third-party service providers may be vulnerable to data security risks, including cyber attack

Our processes and networks and those of our third-party service providers, our POs, approved participants, clearing members and our customers may be vulnerable to information security risks, including unauthorized access, computer viruses, theft of data, denial of service attacks, and other security issues. Persons who circumvent security measures could wrongfully use our information or cause interruptions or malfunctions in our operations which could damage the integrity of our markets and data provision, any of which could have a material adverse effect on our business, financial condition and results of operations. We may be required to expend significant resources to protect against the threat of security breaches or to alleviate problems, including reputational harm and litigation, caused by any breaches. Although we intend to continue to implement industry-standard security measures, these measures may prove to be inadequate and result in system failures and delays that could lower trading volume and have a material adverse effect on our business, financial condition and results of operations.

Geopolitical & External Disruption Risks

We are exposed to the risks that geopolitical upheavals (e.g. a terrorist attack) or non-political external events (e.g. extreme weather, pandemics) will affect the provision of our critical services.

Geopolitical, climate change and other factors could interrupt our critical business functions

The continuity of our critical business functions could be interrupted by geopolitical upheaval, including terrorist, criminal and political, or other types of external disruptions, including pandemics, human error, climate change, natural

disasters, extreme weather, power loss, telecommunication failures, theft, sabotage and vandalism. Given our position in the Canadian capital markets, we may be more likely than other companies to be a target of such activities.

Our Business Resilience program consists of a series of integrated crisis management, disaster recovery, pandemic and business continuity plans for critical business functions to mitigate the risk of an interruption. Within these plans, leaders and managers have identified critical roles and critical processes that we are ready to maintain should a situation worsen.

All critical operations maintain a split operation for both data centres and office space, to provide redundancy and back-up in terms of technology, facilities and staffing to reduce the risk and maintain recovery time objectives in the event of a disruption. Any interruption to our key services could impair our reputation, damage our brand name, and negatively impact our financial condition and operating results.

Talent Management Risk

We are exposed to the risk that we are unable to attract and/or retain talented employees, which adversely affects the achievement of our objectives.

We need to retain and attract qualified personnel

Our success depends to a significant extent upon the continued employment and performance of a number of key management personnel whose compensation is partially tied to share options and other long-term incentive plans that mature over time. The value of this compensation is dependent upon total shareholder return performance factors, which includes appreciation in our share price. The loss of the services of key personnel could materially adversely affect our business and operating results.

We also believe that our future success will depend in large part on our ability to attract and retain highly skilled technical and managerial personnel. Changes in the labor market and work environments as a result of the pandemic continue to present additional risks including: (i) a shortage of qualified personnel in areas that are critical to our operations, (ii) rapidly shifting employee or candidate expectations regarding pay and benefits, work location or other work attributes which hinders our ability to source required talent quickly, and (iii) a potential decline in performance or productivity for some personnel who cannot adapt to hybrid work conditions and/or health and safety protocols and policies. Each of these risks could negatively affect our business and operational results. To mitigate these risks, we are investing in enhanced recruiting tools and practices that support robust and diverse candidate sourcing, investing in talent assessment and development tools to ensure we retain top talent, and developing hybrid working guidelines and a future of work strategy that accommodates diverse employee needs and preferences.

Evolving social conditions have also heightened employee expectations regarding diversity, equity and inclusion (ED&I) practices, which contribute to an employee's desire to join or stay with an organization. In response, we developed an employee-led ED&I Strategic Advisory Council and recently launched our first enterprise ED&I strategy which builds on the information and feedback provided in our 2020 ED&I employee survey. This strategy aligns with our organizational values and promotes an inclusive culture of belonging for all. If there is an increase in employee turnover or we receive fewer candidates for open positions there may be a need for some businesses to adjust initiatives or there may be an increase in operational incidents which may negatively impact our business, operations, financial condition and performance.

Insider Threat Risk

We may be exposed to a threat where an authorized employee may take bad faith actions towards our employee base, technology, information or operations. We conduct background checks prior to the offer of employment and throughout the individual's employment; the frequency of which is based on their level of access. Access levels are

reviewed on a regular basis and all access changes/terminations are communicated in a timely manner. All access is logged by Security on a continuous basis and requires multi factor authentication (MFA) . TMX Group networks, endpoints and user's behaviour are monitored by leveraging systems that trigger on use-cases and anomalies, to identify rogue users or compromised accounts.

We provide a Whistleblower program that allows employees to report anonymously any suspicious behaviour or policy non-compliance by other employees. This program is administered by a third party provider that activates the investigative process.

Our trading, clearing and depository businesses could be exposed to loss due to operational failures

If our systems are significantly compromised or disrupted or if we suffer repeated failures, this could interrupt our cash equities trading services, MX's trading and CDCC's clearing services, CDS' clearing, settlement and depository services; cause delays in settlement; cause us to lose data; corrupt our trading and clearing operations, data and records; or disrupt our business operations. This could undermine confidence in our exchanges and clearinghouses, materially adversely affect our reputation or operating results, and may lead to customer claims, litigation and regulatory sanctions. Failure of CDS' systems could also affect other systemically important financial infrastructures such as the Large Value Transfer System operated by Payments Canada.

CDS holds securities on behalf of its participants in safe keeping. A small portion of this securities inventory is held in physical form. This risk is mitigated through layers of physical security arrangements as well as insurance coverage. However, CDS may be exposed to the risk of the loss or theft of these securities.

The operational processes at CDS and CDCC which provide clearing and central-counterparty services, are subject to the risk of failure for which they may be held liable. These process failures may result in material financial losses. To mitigate this risk, CDS and CDCC have instituted a comprehensive set of internal controls, which are audited by an external party on at least an annual basis. CDS and CDCC are the sole clearers for the transactions they process.

Operations Risk relating to Transfer Agent and Corporate Trust, and Registered Plan Trustee Services Business

Our transfer agent and corporate trust services business could be exposed to losses due to operational risks

The principal risks associated with the services and products offered by TSX Trust are operational in nature as TSX Trust is not involved in deposit taking and lending activities, nor does it trade in marketable securities. The most significant operational risks include securities issuance and transfers, corporate actions processing, disbursements, escrows, corporate trust, segregated finance, employee share price services, and segregated accounts reconciliation activities. To mitigate these risks, its management has instituted a comprehensive set of internal controls, which are audited by an external party on at least an annual basis in addition to the ongoing internal audit reviews.

In addition, the recent amalgamation of TSX Trust with AST Trust Company (Canada), and the ongoing integration exposes TSX Trust to certain integration risks. These risks include delayed integration timeline, increase in associated costs or key client attrition; if these risks materialize, it may impact TSX Trust's ability to meet its objectives, including the higher likelihood that expected synergies may not materialize. This may impact regulator or market confidence, in addition to exposing TSX Trust to operational challenges. To mitigate these risks, TSX Trust has instituted a comprehensive set of integration controls that are closely managed by TSX Trust Senior Management, with oversight from the TSX Trust Board, to help ensure that TSX Trust's objectives are achieved.

Model Risk

We are exposed to the risk that our clearing and settlement risk models used within our clearing houses are not designed or operating effectively, thereby exposing us to systemic failure.

We are dependent on the accuracy and effective implementation of risk models

CDS and CDCC use financial models to estimate risk exposures and the value of margin and collateral to mitigate those exposures. These models are subject to risks including the incorrect use of variables input into the models, the misspecification of the model or errors in the implementation and/or use of models and their results which could result in the risks resulting from a clearing member failure being inadequately collateralized. The model risks are mitigated through model testing prior to implementation and the existence of a risk management framework with necessary governance to regularly assess the adequacy of the models. In addition, our clearinghouse risk models are subject to independent vetting and validation thereby ensuring that those models continue to perform as they were originally designed to do. Failure of the models may result in under or over estimation of financial risk exposures and may create systemic risks.

Third Party Risk

We are exposed to the risk that the use of third party vendors or outsourcing service providers for technology and/or business processes will result in loss of critical business data and/or compromise controls.

We depend on third-party suppliers and service providers

We depend on a number of third parties, such as IIROC, cloud services, data processors, software and hardware suppliers, communication and network suppliers, suppliers of electricity, and many other vendors, for elements of our businesses including trading, clearing, routing, providing market data and other products and services. These third parties may not be able to provide their services without interruption, or in an efficient, cost-effective manner. In addition, we may not be able to renew our agreements with these third parties on favourable terms or at all. These third parties also may not be able to adequately expand their services to meet our needs. We have established a central procurement function focused on vendor selection and management. However, if a third party suffers an interruption in or stops providing services and we cannot make suitable alternative arrangements, or if we fail to renew certain of our agreements on favourable terms or at all, our business, financial condition or operating results could be materially adversely affected.

Client Concentration Risk

We depend on an adequate number of clients

If we determine that there is not a fair market, the markets will be shut down. There will not be a fair market if too few POs, or approved participants are able to access our cash equity or derivatives exchanges, including market data information generated from these exchanges. If trading on our exchanges is interrupted or ceases, it could materially adversely affect our equity or derivatives operations, our financial condition and our operating results.

Our trading and clearing operations depend primarily on a small number of clients

During 2021, approximately 82% of our trading and related revenue, net of rebates, on TSX and approximately 68% of our trading and related revenue on TSXV were accounted for by the top ten POs on each exchange based on volumes traded.

Approximately 55% of CDS's revenue, net of rebates, in 2021 was accounted for by the top ten customers (excluding securities regulators).

Approximately 78% of MX and CDCC's trading and clearing revenue, net of rebates, in 2021 was accounted for by the top ten participants based on volume of contracts traded.

If there was a significant decrease in revenue from several of these customers, there would be a negative impact on our business.

Legal & Regulatory Risk

Regulatory Climate & Compliance

We are exposed to the risks that are associated with the complexity and unpredictability of our legal and regulatory environment, including legislation and regulations that impact our listed issuers. Our response to regulatory requirements could result in higher operating costs. Moreover, we are also exposed to the risk that we fail to comply with laws and regulations, resulting in financial and reputational loss.

Cost of Regulation

We incur costs to comply with the regulatory requirements that are imposed pursuant to the Recognition Orders.

For more information on the regulatory impact on our business, please see the TMX Group Annual Information Form, dated March 25, 2021.

We operate in a highly regulated industry and are subject to extensive regulation and could be subject to increased regulatory scrutiny in the future

We are subject to significant regulatory constraints. We operate in a highly regulated industry and are subject to extensive government regulation and we could be subject to increased regulatory scrutiny in the future. Regulators in Canada, as well as regulators in other jurisdictions where we do business, such as the U.S., may regulate us, our exchanges, our clearing houses and certain of our other businesses. Regulators in other jurisdictions may impose new laws to regulate our current or future operations, and we may expand our operations to new regulated jurisdictions.

Our regulators have broad powers over the entities they regulate to audit, investigate and enforce compliance with applicable regulations and impose sanctions for non-compliance.

Our regulators are vested with broad powers to prohibit us from engaging in certain business activities and to suspend or revoke existing approval to engage in certain business activities, including exchange, clearing agency and SRO related activities. In the case of actual or alleged non-compliance with legal or regulatory requirements, our regulated entities could be subject to investigations and administrative or judicial proceedings that may result in substantial penalties, including the suspension or revocation of approval to operate as an exchange, clearing agency or SRO, as applicable. Any such investigation or proceeding, whether successful or not, would result in substantial costs and diversions of

resources and might also harm our reputation, any of which may have a material adverse effect on our business, financial condition and results of operations.

The regulation of our businesses and industry may impose barriers or constraints which limit our ability to build an efficient, competitive organization and may also limit our ability to expand global operations. Securities and other regulators also impose financial and corporate governance restrictions on us and our equity and derivatives exchanges and clearing agencies and operations. Some of our regulators must approve or review our regulated entities' listing rules, trading rules, clearing, settlement and depository rules, fee structures and features and operations of, or changes to, our systems. These approvals or reviews may increase our costs and delay our plans for implementation. There could also be regulatory changes that impact our customers and that could materially adversely affect our business, financial condition and results of operations.

We could be subject to increased regulatory scrutiny in the future. The multi-market environment in Canada and the impact of global economic conditions continue to lead to more aggressive regulation of our businesses by securities and other regulatory agencies in Canada, the U.S. and abroad and could extend to areas of our businesses that to date have not been regulated.

There may be a conflict of interest, real or perceived, between our regulatory responsibilities and our own business activities. While we have implemented stringent governance measures and have and will continue to put into place policies and procedures to manage such conflicts, any failure to diligently and fairly manage such conflicts may significantly harm our reputation, prompt regulatory action and could materially adversely affect our business, financial condition and results of operations.

New regulatory requirements may make it more costly to comply with applicable regulation, to operate our existing businesses or to enter into new business areas

A number of regulatory initiatives and changes have been identified or proposed or are being implemented by regulators, including in Canada, the U.S. and Europe. We cannot be certain whether, or in what form, regulatory changes will take place, and cannot predict with certainty the impact of such changes, if any, on our businesses and operations. Changes in, and additions to, the rules affecting our exchanges, clearing houses, SRO activities or any of our other business activities could require us to change the manner in which we and our customers conduct business or govern ourselves. Failure to make the required changes and comply on a timely basis could result in material reductions to activity or revenue, sanctions and/or restrictions by the applicable regulatory authorities.

Unexpected and new regulatory requirements could make it more costly to comply with relevant regulations and for affected entities to operate their existing businesses, to enter into new business areas or to expand their existing businesses to new jurisdictions. In addition, high levels of regulation may stifle growth and innovation in capital markets generally and may adversely affect our business, financial condition and results of operations.

CDS Clearing and CDCC operate financial market infrastructures, including as central counterparties for cash and derivative markets, a securities settlement system and a central securities depository, that are subject to the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMIs) for these types of services. The PFMIs are reflected in the requirements of such entities' regulators and applicable securities law including National Instrument 24-102 Clearing Agency Requirements. Adherence to the PFMIs by these businesses will continue to impact the cost of regulatory compliance.

European energy market regulatory changes could potentially affect the structure of these markets and hence the number of trading venues supported by Trayport.

Our Recognition Orders impose significant regulatory constraints

Under the Recognition Orders, we are subject to extensive regulation and regulatory oversight with respect to, among other things, fees, fee models, discounts and incentives. The Recognition Orders also impose significant regulatory constraints on our ongoing business. The additional regulatory and oversight provisions provided for in the Recognition

Orders provide the applicable regulators with broad powers that could, depending on how such powers are exercised in the future, impose barriers or constraints that limit our ability to build an efficient, competitive organization, which could have a material adverse effect on our business, financial condition and results of operations.

With respect to the fees charged by all of our equity exchanges (TSX, Alpha, and TSXV), the Recognition Orders impose restrictions or prohibitions on certain types of fee discounts or incentives that such exchanges may provide, including discounts or incentives that are accessible only to a particular marketplace participant or class of marketplace participants. Such prohibitions or restrictions may limit the ability of our equity exchanges to introduce new products in the future or to introduce them on a timely basis, or if introduced, may limit the use and adoption of such products by our customers, any or all of which could materially adversely affect the success of our future strategies, financial condition and results of operations. In addition, under the Recognition Orders the OSC has the right to require TSX and Alpha to submit a fee, fee model or incentive that has previously been approved by the OSC for re-approval. In such circumstances, if the OSC decides not to re-approve the fee, fee model or incentive, it could be revoked or amended.

We incur costs to comply with the regulatory requirements that are imposed pursuant to the Recognition Orders. In addition, we and certain of our businesses are subject to participation and activity fees imposed by provincial securities regulators. The overall scope of the additional regulatory costs may have a material adverse effect on our business, financial condition, and results of operations.

Pursuant to certain of the Recognition Orders, prior regulatory approval is also required before we can implement changes to a number of aspects of our operations. This includes prior regulatory approval of (a) changes to internal cost allocation models and any transfer pricing between affiliated entities, (b) significant integration, combination or reorganization of businesses, operations or corporate functions between TMX Group entities, (c) non-ordinary course changes to TSXV's operations, and (d) any outsourcing of key services or systems. The requirement to obtain approvals may restrict or delay our ability to make planned changes to these aspects of our operations in the future which could have a material adverse effect on our business, financial condition and results of operations.

Our Recognition Orders impose ownership restrictions on our voting shares

Under the OSC and AMF Recognition Orders, no person or combination of persons, acting jointly or in concert, is permitted to beneficially own or exercise control or direction over more than 10% of any class or series of voting shares of TMX Group without prior approval of the OSC and the AMF. Should a person or combination of persons, acting jointly or in concert, beneficially own or exercise control or direction over more than 10% of any class or series of voting shares of TMX Group without prior approval of the OSC and the AMF, in accordance with the contrasting documents of TMX Group, among other things, their respective voting rights may be limited to no more than 10% until such time as approval has been granted by the OSC and the AMF in accordance with the contrasting documents of TMX Group.

Litigation/Legal Proceedings Risk

We are exposed to the risk that litigation or other legal proceedings are launched against us.

We are subject to risks of litigation and other legal proceedings

Some aspects of our business involve risks of litigation. Dissatisfied customers or vendors, among others, may make claims with respect to, among other things, the manner in which we operate or they may challenge our regulatory actions, decisions or jurisdiction. Although we may benefit from certain contractual indemnities and limitations on liabilities, these rights may not be sufficient. In addition, with civil liability for misrepresentations in our continuous disclosure documents and statements and for the failure to make timely disclosures of material changes in Ontario and certain other jurisdictions, dissatisfied shareholders have a statutory right to make claims against us. We could incur significant legal expenses defending claims, even those without merit. If a lawsuit or claim is resolved against us, it could materially adversely affect our reputation, business, financial condition and operating results.

Intellectual Property Risk

We are exposed to the risk that we fail to protect our intellectual property resulting in material financial loss to us. We are exposed to the risk that an infringement claim may be asserted against us.

We may be unable to protect our intellectual property

To protect our intellectual property rights, we rely on a combination of trademark laws, copyright laws, patent laws, trade secret protection, confidentiality agreements, and other contractual arrangements with our affiliates, customers, strategic partners, and others. This protection may not be adequate to deter others from misappropriating our proprietary rights. We may not be able to detect the unauthorized use of, or take adequate steps to enforce, our intellectual property rights. If we are unable to protect our intellectual property adequately, it could harm our brand, affect our ability to compete effectively and may limit our ability to maintain or increase revenue. It could also take significant time and money to defend our intellectual property rights, which could adversely affect our business, financial condition, and operating results.

We are subject to risks of intellectual property claims

We license a variety of intellectual property from third parties. Others may bring infringement claims against us or our customers in the future because of an alleged breach of such a license. We may also be subject to claims alleging that we are infringing on a third party's intellectual property rights without a license. If someone successfully asserts an infringement claim, we may be required to spend significant time and money to develop or license intellectual property that does not infringe upon the rights of that other person or to obtain a license for the intellectual property from the owner. We may not succeed in developing or obtaining a license on commercially acceptable terms, if at all. In addition, any litigation could be lengthy and costly and could adversely affect us even if we are successful.

Financial Risks

Operational Risk

Most of our expenses are fixed and cannot be easily lowered in the short-term if our revenue decreases, which could have an adverse effect on our operating results and financial condition. We are exposed to the risk that we fail to develop, implement and maintain the appropriate corporate finance model and capital structure. The Trust Indentures governing the Debentures impose various restrictions on TMX Group and its subsidiaries, including restrictions on the ability of TMX Group and each of its material subsidiaries (as defined in the Trust Indentures) to create a lien on these entities' assets, limitations on the ability of material subsidiaries of TMX Group to enter into certain types of indebtedness, and requirements to repurchase outstanding Debentures on change of control of TSX Inc. or MX coupled with a triggering event (i.e., rating of the Debentures is lowered to below investment grade). Notwithstanding our treasury and capital allocation programs which include leverage ratio and dividend payout ratio analysis, some, or all, of these restrictions could limit our flexibility to change our capital structure.

Our Credit Agreement requires us to satisfy and maintain an interest coverage ratio and a leverage ratio, among other covenants, including the timely payment of principal and interest when due. It is important that we meet all of the terms under our Credit Facility since it provides a 100% backstop to our Commercial Paper Program. Based on the current level of operations and anticipated growth, we believe that our cash flows from operations and our available cash are adequate to meet our current liquidity needs. However, we cannot guarantee that our businesses will generate sufficient earnings or cash flows from operations or that anticipated growth will be realized or that we will be able to control our expenses in an amount sufficient to enable us to satisfy the financial ratios and other covenants, or pay our indebtedness or fund our other liquidity needs. If we do not have sufficient funds, we may be required to renegotiate the terms of, restructure, or refinance all or a portion of our indebtedness on or before our stated

maturity, reduce or delay capital investments and acquisitions, reduce or eliminate our dividends, or sell assets. Our ability to renegotiate, restructure, or refinance our indebtedness would depend on the condition of the financial markets and our financial condition at that time. Failure to comply with the financial ratios as well as covenants of the Credit Agreement could result in a default under the Trust Indentures, which, if not cured or waived, could result in TMX Group being required to repay outstanding borrowings under both the Credit Agreement and the Debentures before their due dates. In addition, an event of default under the Trust Indentures governing the Debentures that would result in an acceleration of maturity of the applicable series of Debentures could lead to an acceleration of the maturity of the Credit Agreement.

In addition, if we fail to comply or are reasonably likely to fail to comply with any financial covenant or ratio contained in any Final Recognition Order, such failure could result in a default under the Credit Agreement as well, if a governmental authority issues a decision or orders restrictions on us or any of our subsidiaries as a result of the non-compliance where a requisite majority of the lenders determine that the restrictions have or will have a material adverse effect as defined in the Credit Agreement. It will also be a default under the Credit Agreement if a governmental authority issues a decision or orders restrictions on our or any of our subsidiaries' ability to move cash or cash equivalents among TMX Group and our subsidiaries, where a requisite majority of the lenders determine that the restrictions have or will have a material adverse effect. If these events of default under the Credit Agreement were to result in an acceleration of maturity under the Credit Agreement, the event(s) could constitute an event of default under the Trust Indentures, which in turn would result in the acceleration of maturity of the outstanding Debentures. If we are forced to refinance these borrowings on less favourable terms or cannot refinance these borrowings, our business, results of operations, and financial condition would be adversely affected. Borrowings under the Commercial Paper Program and Credit Agreement incur interest at variable rates and expose us to interest rate risk. If interest rates increase, our debt service obligations on our variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income and cash flows, including cash available for servicing the indebtedness, would correspondingly decrease.

DBRS Morningstar regularly evaluates and monitors the rating of our Commercial Paper and the rating of our Debentures outstanding. A downgrade from our existing rating could adversely affect our cost of borrowing and/or our ability to access sources of liquidity and capital and reduce financing options available to us. On October 6, 2021, DBRS Morningstar, our rating agency, reconfirmed their A (high) rating on TMX Group Limited and on our Senior Unsecured Debentures, as well as their R-1 (low) rating on our Commercial Paper, and changed the trends from Stable to Positive.

Credit Risk

Credit risk is the risk of loss due to the failure of a borrower, counterparty, clearing member or participant to honour their financial obligations. It arises principally from the clearing operations of CDS Clearing and CDCC, the brokerage operations of Shorcan, cash and cash equivalents, restricted cash and cash equivalents, marketable securities, trade receivables, and total return swaps.

Credit Risk – Clearing Houses

Credit Risk - CDS

CDS Clearing is exposed to the risk of loss due to the failure of a Participant in CDS Clearing's clearing and settlement services to honour its financial obligations. To a lesser extent, CDS Clearing is exposed to credit risk through the performance of services in advance of payment.

Through the clearing and settlement services operated by CDS Clearing, credit risk exposures are created. During the course of each business day, transaction settlements can result in a net payment obligation of a Participant to CDS Clearing or the obligation of CDS Clearing to pay a Participant. The potential failure of the Participant to meet its payment obligation to CDS Clearing results in payment risk, a specific form of credit risk. Payment risk is a form of credit risk in securities settlement whereby a seller will deliver securities and not receive payment, or that a buyer will make payment and not receive the purchased securities. Payment risk is mitigated by delivery payment finality in CDSX, CDS' multilateral clearing and settlement system, as set out in the CDS Participant Rules.

In the settlement services offered by CDS Clearing, payment risk is transferred entirely from CDS Clearing to Participants who accept this risk pursuant to the contractual rules for the settlement services. This transfer of payment risk occurs primarily by means of Participants acting as extenders of credit to other Participants through lines of credit managed within the settlement system or, alternatively, by means of risk-sharing arrangements whereby groups of Participants cross-guarantee the payment obligations of other members of the group. Should a Participant be unable to meet its payment obligations to CDS Clearing, these surviving Participants are required to make the payment. Payment risk is mitigated on behalf of Participants through the enforcement of limits on the magnitude of payment obligations of each Participant and the requirement of each Participant to collateralize its payment obligation. Both of these mitigants are enforced in real time in the settlement system.

The risk exposure of CDS Clearing in its central counterparty services is mitigated through a daily mark-to-market of each Participant's obligations as well as risk-based collateral requirements calculated daily. These mitigants are intended to cover the vast majority of market changes and are tested against actual price changes on a regular basis. This testing is supplemented with analysis of the effects of extreme market conditions on a collateral valuation and market risk measurements which are used to determine additional collateral requirements of Participants to a default fund established in 2015. Should the collateral of a defaulter in a central counterparty service be insufficient, either because the value of the collateral has declined or the loss to be covered by the collateral exceeded the collateral requirement, the surviving participants in the service are required to cover any residual losses.

Credit Risk – CDCC

CDCC is exposed to loss in the event that Clearing Members fail to satisfy any of the contractual obligations as stipulated within CDCC's rules.

CDCC is exposed to the credit risk of its Clearing Members since it acts as the central counterparty for all transactions carried out on MX's markets and on certain OTC markets which are serviced by CDCC. As such, in the event of a Clearing Member default, the obligations of those defaulting counterparties would become the responsibility of CDCC.

The first defense in CDCC's credit risk management process is the adoption of strict membership criteria which include both financial and regulatory requirements. In addition, CDCC performs on-going monitoring of the financial viability of its Clearing Members against the relevant criteria as a means of ensuring the on-going compliance of its Clearing Members. In the event that a Clearing Member fails to continue to satisfy any of its membership criteria, CDCC has the right through its rules, to impose various sanctions on such Clearing Members.

One of CDCC's principal risk management practices with regard to counterparty credit risk is the collection of risk-based margin deposits in the form of cash, equities and liquid government securities. Should a Clearing Member fail to meet settlements and/or daily margin calls or otherwise not honour its obligations under open futures, options contracts and REPO agreements, margin deposits would be seized and would then be available to apply against the potential losses incurred through the liquidation of the Clearing Member's positions.

CDCC's margining system is complemented by a Daily Capital Margin Monitoring process that evaluates the financial strength of a Clearing Member against its margin requirements. CDCC monitors the margin requirement of a Clearing Member as a percentage of its capital (net allowable assets). CDCC will make additional margin calls when the ratio of margin requirement/net allowable assets exceeds 100%. The additional margin is equal to the excess of the ratio over 100% and is meant to ensure that Clearing Member leverage in the clearing activities does not exceed the value of the firm. CDCC also has additional margin surcharges to manage the risk exposures associated with certain idiosyncratic risks. These include: concentration charges for Clearing Members that are overly concentrated in certain positions, wrong-way risk charges for those Clearing Members holding positions which are highly correlated with their own credit risk profile, mismatched settlement surcharges which are meant to mitigate the risk of cherry-picking by a potential defaulter in the settlement process.

Credit Risk – Shorcan

Shorcan is exposed to credit risk in the event that customers fail to settle on the contracted settlement date. This risk is limited by their status as agents, in that they do not purchase or sell securities for their own account. As agents, in the

event of a failed trade, Shorcan has the right to withdraw its normal policy of anonymity and advise the two counterparties to settle directly.

Credit Risk – All Other

We manage our exposure to credit risk on our cash and cash equivalents and restricted cash and cash equivalents by holding the majority of our cash and cash equivalents with commercial banks with a minimum credit rating of A/R-low or better in Government of Canada and provincial treasury bills and US treasury bills. We manage exposure to credit risk arising from investments in marketable securities by holding high-grade individual fixed income securities with credit ratings of A/R1-low or better.

Our exposure to credit risk resulting from uncollectable accounts is influenced by the individual characteristics of our customers, many of whom are banks and financial institutions. We invoice our customers on a regular basis and maintain a collections team to monitor customer accounts and minimize the amount of overdue receivables. Due to the bilateral nature of the TRSs, we are exposed to counterparty credit risk. To manage this credit risk, we only enter into the TRSs with major Canadian chartered banks.

Market Risk

Market risk is the risk of loss due to changes in market prices and rates such as equity prices, interest rates and foreign exchange rates. We are exposed to market risk relating to equity prices when we grant DSUs, RSUs and PSUs to our directors and employees, as our obligations under these arrangements are partly based on our share price. We have entered into TRSs as a partial fair value hedge to the share appreciation rights of RSUs, DSUs, and PSUs (2020 - RSUs and DSUs).

We are exposed to market risk on interest earned on our cash, cash equivalents and marketable securities. This risk is partially mitigated by having variable interest rates on our short-term debt (Commercial Paper). We are exposed to market risk relating to interest paid on our Commercial Paper.

Other Market Price Risk – CDS, CDCC, TSX, TSX Venture Exchange and Shorcan

We are exposed to market risk factors from the activities of CDS Clearing, CDCC, TSX, TSX Venture Exchange, and Shorcan if a Participant, Clearing Member, or Client, as the case may be, fails to take or deliver either securities or derivatives products on the contracted settlement or delivery date where the contracted price is less favourable than the current market price.

CDS

CDS is exposed to market risk through its CCP function in the event a participant defaults as it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions. Adverse changes to market prices and rates would expose CDS to credit risk losses.

The principal mitigation of this credit risk exposure post default is the default management process. CDS has developed default management processes that would enable it to neutralize the market exposures via open market operations within prescribed time periods. Any losses from such operations would be set-off against the collateral contributions of the defaulting participant to the Participant Fund and Default Fund for the CCP service, thereby minimizing credit losses.

CDCC

CDCC is exposed to market risk through its CCP functions in the event of a Clearing Member default as it becomes the legal counterparty to all of the defaulter's novated transactions and must honor the financial obligations that arise from those novated transactions. Adverse changes to market prices and rates would expose CDCC to credit risk losses.

The principal mitigation of this credit risk exposure post default is the default management process. CDCC has developed detailed default management processes that would enable it to neutralize the market exposures through

either its auction process or via open market operations within prescribed time periods. Any losses from such operations would be set-off against the margin and clearing fund (if necessary) collateral that are pre-funded by all Clearing Members for these purposes, thereby minimizing the credit losses.

TSX and TSX Venture Exchange

We are exposed to market price risk on a portion of our sustaining services revenue, which is based on quoted market values of listed issuers as at December 31 of the previous year.

Shorcan

Shorcan's market risk is limited by its status as an agent, in that it does not purchase or sell securities for its own account, the short period of time between trade date and settlement date, and the defaulting customer's liability for any difference between the amounts received upon sale of, and the amount paid to acquire, the securities.

Foreign Currency Risk

We are exposed to foreign currency market risk on revenue and expenses where we invoice or procure in a foreign currency, principally in U.S. dollars and GBP.

We do not currently employ currency hedging strategies with respect to our operating activities, and therefore significant moves in exchange rates, specifically a strengthening of the Canadian dollar against the U.S. dollar and GBP can have an adverse effect on the value of our revenue or assets in Canadian dollars.

Settlements in the clearing and settlement services offered by CDS occur in both Canadian and U.S. dollars. Market risk relating to foreign exchange rates could be created if there is a default and the currency of the payment obligation is different from the currency of the collateral supporting that payment obligation. This risk is mitigated by discounting the collateral value of securities where these mismatches occur.

Based on 2021 revenue and operating expenses, the approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with the U.S. dollar on revenue, net of operating expenses, is approximately $7.7 million. Based on Trayport's 2021 revenue and operating expenses, the approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with Great British Pounds (GBP) on revenue, net of operating expenses, is approximately $5.7 million.

We are also exposed to market risk relating to foreign currency rates applicable to our cash and cash equivalents, trade receivables and trade payables, principally denominated in U.S. dollars. At December 31, 2021, cash and cash equivalents and trade receivables, net of current liabilities, include US$8.1 million, which are exposed to changes in the US-Canadian dollar exchange rate (2020 – US$10.0 million), £0.3 million which are exposed to changes in the GBP-Canadian dollar exchange rate (2020 - £0.8 million), and less than €0.1 million which are exposed to changes in the Euro-Canadian dollar exchange rate (2020 - less than €0.1 million). The approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with the U.S. dollar, GBP and Euro on these balances as at December 31, 2021 is a $1.1 million decrease or increase in income before income taxes, respectively.

Liquidity Risk - Operations

Liquidity risk is the risk of loss due to the inability of TMX Group or its borrowers, counterparties, Clearing Members, or Participants to meet their financial obligations in a timely manner or at reasonable prices. We manage liquidity risk through the management of our cash and cash equivalents and marketable securities, all of which are held in short term instruments, and our Debentures, Commercial Paper as well as credit and liquidity facilities. In clearing and depository services, liquidity risk results from the requirement to convert collateral to cash in the event of the default of a participant/customer.

Cash and cash equivalents and restricted cash and cash equivalents consist of cash and highly liquid investments. Our investment policy will only allow excess cash to be invested within money market securities or fixed income securities. Individual fixed income securities held have credit ratings of A/R1-low or better and are highly liquid.

Liquidity Risk - Clearing Houses

The margin deposits of CDCC and CDS and clearing fund margins of CDCC are held in liquid instruments. Cash margin deposits and cash clearing fund deposits from Clearing Members, which are recognized on the consolidated balance sheet, are held by CDCC with the Bank of Canada and commercial banks with a minimum credit rating of A/R1-low or better and are highly liquid. Non-cash margin deposits and non-cash clearing fund deposits pledged to CDCC under irrevocable agreements are in government securities and other securities and are held with approved depositories. Cash collateral from CDS' participants, which is recognized on the consolidated balance sheet, is held by CDS at the Bank of Canada and commercial banks with a minimum credit rating of A/R1-low or better and are highly liquid and NSCC/DTC. Non-cash collateral, which is not recognized on the consolidated balance sheet, pledged by participants under Participant Rules is held by CDS in liquid government and fixed income securities.

There is a risk in placing funds at US commercial banks should they experience capacity constraints, leaving us in a position where we are challenged to place funds. This risk is mitigated through established procedures to counter this scenario.

CDS

The design of CDS' New York Link service does not apply strict limits to a Participant's end-of-day payment obligation, creating the potential for unlimited liquidity risk exposure if a user of the service were to default on its obligation. CDS manages this risk through active monitoring of payment obligations and a committed liquidity facility which covers the vast majority of potential Participant default scenarios.

CDS maintains two secured standby liquidity facilities that can be drawn in either U.S. or Canadian currency. These arrangements are available to support processing and settlement activities in the event of a participant default in either the CNS or NYL service lines. Borrowings under the secured facilities are obtained by pledging securities that are settled through CNS or NYL services or providing collateral pledged by participants primarily in the form of debt instruments issued or guaranteed by federal, provincial and/or municipal governments in Canada or U.S. treasury instruments. As a designated FMI, CDS has access to the Emergency Lending Assistance (ELA) program offered by the Bank of Canada and is meant to provide emergency funding in the event of liquidity shortfalls at CDS that may occur under market stress events. The ELA is offered at the full discretion of the Bank of Canada and is meant to be fully collateralized by SLF-eligible assets.

CDCC

The syndicated revolving standby liquidity facility is also in place to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero as well as to provide a source of overnight funding for securities that are not eligible to be pledged at the Bank of Canada or for emergency liquidity needs in the event of a Clearing Member default. Advances under the facility will be secured by collateral in the form of securities that have been received by CDCC. The syndicated REPO facility is also in place to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero or for emergency liquidity needs in the event of a Clearing Member default. It will provide liquidity in exchange for securities that have been pledged to or received by CDCC. As a designated FMI CDCC has access to the ELA program offered by the Bank of Canada and is meant to provide emergency funding in the event of liquidity shortfalls at CDCC that may occur under market stress events. The ELA is offered at the full discretion of the Bank of Canada and is meant to be fully collateralized by SLF-eligible assets.

Commercial Paper Program

We rely on our Commercial Paper Program, Debentures and Credit Facility as a source of financing. The specific liquidity risk related to Commercial Paper is that we are unable to borrow under a new Commercial Paper issuance in order to pay for Commercial Paper that is coming due because of a lack of liquidity or demand for our Commercial Paper in the market. To mitigate this risk, we maintain a Credit Agreement that provides 100% coverage or backstop to the Commercial Paper Program.

Accounting and Control Matters

Changes in accounting policies

In March 2021, the IASB amended IFRS 16, *Leases*, extending the practical expedient introduced in May 2020 in response to the COVID-19 pandemic, in order to permit lessees to apply it to rent concessions for which reductions in lease payments affect payments due on or before June 30, 2022 (extended from June 30, 2021). TMX Group early adopted this amendment from January 1, 2021. This amendment did not have a significant impact on TMX Group's interim financial statements.

Future changes in accounting policies

The following new standards and amendments to standards and interpretations are not yet effective for the year ending December 31, 2021, and have not been applied in the preparation of the financial statements. These new and amended standards and interpretations are required to be implemented for financial years beginning on or after January 1, 2022:

- IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* – Amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts. Before recognizing a separate provision for an onerous contract, the entity recognizes any impairment loss that has occurred on assets used in fulfilling the contract. The amendments apply to contracts existing at the date when the amendments are first applied. The Company does not expect the amendments to have a material impact on its financial statements.

- Reference to the Conceptual Framework – Amendments to IFRS 3, *Business Combinations* – Minor amendments were made to IFRS 3 to update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* and Interpretation 21, *Levies*. The amendments also confirm that contingent assets should not be recognized at the acquisition date. The Company does not expect the amendments to have a material impact on its financial statements.

Accounting standards effective beyond 2022

The following accounting standards are required to be implemented for financial years beginning on or after January 1, 2023 and are not expected to have a significant impact on the Company's financial statements:

- Classification of liabilities as current or non-current (Amendments to IAS 1, *Presentation of Financial Statements*)

- Disclosure of Accounting Policies (Amendments to IAS 1)

- Definition of Accounting Estimate (Amendments to IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*)

- Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction (Amendments to IAS 12, *Income Taxes*)

Disclosure Controls and Procedures and Internal Control over Financial Reporting

Disclosure Controls and Procedures

TMX Group's disclosure controls and procedures (DCP), as defined in National Instrument 52-109 – Certification of Disclosure in Issuers' Annual and Interim Filings (NI 52-109) are designed to provide reasonable assurance that information required to be disclosed in our filings under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation. They are also designed to provide reasonable assurance that all information required to be disclosed in these filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO) as appropriate, to allow timely decisions regarding public disclosure. We regularly review our disclosure controls and procedures; however, they cannot provide an absolute level of assurance because of the inherent limitations in control systems to prevent or detect all misstatements due to error or fraud.

Our management, including the CEO and CFO, conducted an evaluation of the effectiveness of our DCP as of December 31, 2021. Based on this evaluation, the CEO and CFO have concluded that our DCP were effective as of December 31, 2021.

Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting (ICFR), as defined in NI 52-109. ICFR means a process designed by or under the supervision of the CEO and CFO, and effected by our board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS, and includes those policies and procedures that: (1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of TMX Group; (2) are designed to provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS, and that receipts and expenditures of TMX Group are being made only in accordance with authorizations of management and directors of TMX Group; and (3) are designed to provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of TMX Group's assets that could have a material effect on the financial statements.

All internal control systems have inherent limitations and therefore our ICFR can only provide reasonable assurance and may not prevent or detect misstatements due to error or fraud.

Our management, including the CEO and CFO, conducted an evaluation of the effectiveness of our ICFR as of December 31, 2021 using the Committee of Sponsoring Organizations of the Treadway Commission (COSO) framework (2013). Based on this evaluation, the CEO and CFO have concluded that our ICFR were effective as of December 31, 2021.

Changes in Internal Control over Financial Reporting

There were no changes to internal control over financial reporting (ICFR) during the quarter and year ended December 31, 2021 that materially affected, or are reasonably likely to materially affect, our ICFR.

Related Party Relationships and Transactions

Parent

The shares of TMX Group are widely held and, as such, there is no ultimate controlling party of TMX Group. Under the OSC and AMF Recognition Orders, no person or combination of persons, acting jointly or in concert, is permitted to beneficially own or exercise control or direction over more than 10% of any class or series of voting shares of TMX Group without prior approval of the OSC and the AMF.

Key management personnel (KMP) compensation

Compensation for key management personnel, including TMX Group's Board of Directors, was as follows for the year:

(in millions of dollars)	**2021**	2020
Salaries and other short-term employee benefits, and termination benefits	**$11.8**	$10.4
Post-employment benefits	**0.7**	0.6
Share-based payments	**6.8**	12.9
	19.3	23.9

There was a decrease of $4.6 million related to key management personnel compensation driven by lower *share-based payments.* This decrease reflects lower share price appreciation in 2021 compared with 2020, and also reduced *share-based payments* due to certain KMP roles transitioning during 2021.

CAUTION REGARDING FORWARD-LOOKING INFORMATION

This MD&A of TMX Group contains "forward-looking information" (as defined in applicable Canadian securities legislation) that is based on expectations, assumptions, estimates, projections and other factors that management believes to be relevant as of the date of this MD&A. Often, but not always, such forward-looking information can be identified by the use of forward-looking words such as "plans," "expects," "is expected," "budget," "scheduled," "targeted," "estimates," "forecasts," "intends," "anticipates," "believes," or variations or the negatives of such words and phrases or statements that certain actions, events or results "may," "could," "would," "might," or "will" be taken, occur or be achieved or not be taken, occur or be achieved. Forward-looking information, by its nature, requires us to make assumptions and is subject to significant risks and uncertainties which may give rise to the possibility that our expectations or conclusions will not prove to be accurate and that our assumptions may not be correct.

Examples of forward-looking information in this MD&A include, but are not limited to, growth objectives; our target dividend payout ratio; the ability of TMX Group to de-leverage and the timing thereof; the modernization of clearing platforms, including the expected cash expenditures related to the modernization of our clearing platforms and the timing of the modernization; other statements related to cost reductions; the impact of the market capitalization of TSX and TSXV issuers overall (from 2020 to 2021); future changes to TMX Group's anticipated statutory income tax rate for 2022; factors relating to stock, and derivatives exchanges and clearing houses and the business, strategic goals and priorities, market conditions, pricing, proposed technology and other business initiatives and the timing and implementation thereof, the expected integration costs related to AST Canada and the timing thereof, the expected cost of the transitional services agreement related to AST Canada, the anticipated benefits and synergies of the AST Canada, including the expected impact on TMX Group's earnings and adjusted earnings per share and the timing thereof, financial results or financial condition, operations and prospects of TMX Group which are subject to significant risks and uncertainties.

These risks include, but are not limited to: competition from other exchanges or marketplaces, including alternative trading systems and new technologies, on a national and international basis; dependence on the economy of Canada; adverse effects on our results caused by global economic conditions (including COVID-19) or uncertainties including

changes in business cycles that impact our sector; failure to retain and attract qualified personnel; geopolitical and other factors which could cause business interruption (including COVID-19); dependence on information technology; vulnerability of our networks and third party service providers to security risks, including cyber-attacks; failure to properly identify or implement our strategies; regulatory constraints; constraints imposed by our level of indebtedness, risks of litigation or other proceedings; dependence on adequate numbers of customers; failure to develop, market or gain acceptance of new products; failure to close and effectively integrate acquisitions to achieve planned economics, including AST Canada, or divest underperforming businesses; currency risk; adverse effect of new business activities; adverse effects from business divestitures; not being able to meet cash requirements because of our holding company structure and restrictions on paying dividends; dependence on third-party suppliers and service providers; dependence of trading operations on a small number of clients; risks associated with our clearing operations; challenges related to international expansion; restrictions on ownership of TMX Group common shares; inability to protect our intellectual property; adverse effect of a systemic market event on certain of our businesses; risks associated with the credit of customers; cost structures being largely fixed; the failure to realize cost reductions in the amount or the time frame anticipated; dependence on market activity that cannot be controlled; the regulatory constraints that apply to the business of TMX Group and its regulated subsidiaries, costs of on exchange clearing and depository services, trading volumes (which could be higher or lower than estimated) and revenues; future levels of revenues being lower than expected or costs being higher than expected.

Forward-looking information is based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions in connection with the ability of TMX Group to successfully compete against global and regional marketplaces; business and economic conditions generally; exchange rates (including estimates of exchange rates from Canadian dollars to the U.S. dollar or GBP), commodities prices, the level of trading and activity on markets, and particularly the level of trading in TMX Group’s key products; business development and marketing and sales activity; the continued availability of financing on appropriate terms for future projects; changes to interest rates and the timing thereof, among other things, could positively or negatively impact AST Canada's accretion to adjusted earnings per share; the amount and timing of incurrence of AST Canada integration costs; the amount and timing of: revenue and technology cost synergies resulting from the AST Canada acquisition; productivity at TMX Group, as well as that of TMX Group’s competitors; market competition; research and development activities; the successful introduction and client acceptance of new products; successful introduction of various technology assets and capabilities; the impact on TMX Group and its customers of various regulations; TMX Group’s ongoing relations with its employees; and the extent of any labour, equipment or other disruptions at any of its operations of any significance other than any planned maintenance or similar shutdowns.

Assumptions related to long term financial objectives

In addition to the assumptions outlined above, forward looking information related to long term revenue cumulative average annual growth rate (CAGR) objectives, and long term adjusted earnings per share CAGR objectives are based on assumptions that include, but not limited to:

- TMX Group's success in achieving growth initiatives and business objectives;
- continued investment in growth businesses and in transformation initiatives including next generation post-trade systems;
- no significant changes to our effective tax rate, recurring revenue, and number of shares outstanding;
- moderate levels of market volatility;
- level of listings, trading, and clearing consistent with historical activity;
- economic growth consistent with historical activity;
- no significant changes in regulations;
- continued disciplined expense management across our business;

- continued re-prioritization of investment towards enterprise solutions and new capabilities;
- free cash flow generation consistent with historical run rate; and
- a limited impact from the COVID-19 pandemic on our plans to grow our business over the long term including on the ability of our listed issuers to raise capital.

While we anticipate that subsequent events and developments may cause our views to change, we have no intention to update this forward-looking information, except as required by applicable securities law. This forward-looking information should not be relied upon as representing our views as of any date subsequent to the date of this MD&A. We have attempted to identify important factors that could cause actual actions, events or results to differ materially from those current expectations described in forward-looking information. However, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended and that could cause actual actions, events or results to differ materially from current expectations. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information. These factors are not intended to represent a complete list of the factors that could affect us. A description of the above-mentioned items is contained in the section "***Enterprise Risk Management***" of this MD&A.

Financial Statements

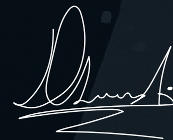
Management Statement

Management is responsible for the preparation, integrity and fair presentation of the consolidated financial statements (the financial statements), management's discussion and analysis, and other information in this annual report. The financial statements were prepared in accordance with International Financial Reporting Standards and, in the opinion of management, fairly reflect the financial position, financial performance and cash flows of TMX Group Limited. Financial information contained throughout this annual report is consistent with the financial statements, unless otherwise specified.

Acting through the Finance and Audit Committee, comprised of non-management directors, all of whom are independent directors within the meaning of Multilateral Instrument 52-110-Audit Committees, the Board of Directors oversees management's responsibility for financial reporting and internal control systems. The Finance and Audit Committee is responsible for reviewing the financial statements and management's discussion and analysis and recommending them to the Board of Directors for approval. To discharge its duties the Committee meets with management and external auditors to discuss audit plans, internal controls over accounting and financial reporting processes, auditing matters and financial reporting issues.

TMX Group's external auditors appointed by the shareholders, KPMG LLP, are responsible for auditing the financial statements and expressing an opinion thereon. The external auditors have full and free access to, and meet periodically with, management and the Finance and Audit Committee to discuss the audit.

John McKenzie
Chief Executive Officer
TMX Group Limited



David Arnold
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TMX Group Limited

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INDEPENDENT AUDITORS' REPORT

To the Shareholders of TMX Group Limited

Opinion

We have audited the consolidated financial statements of TMX Group Limited (the Entity), which comprise:

- the consolidated balance sheets as at December 31, 2021 and 2020;
- the consolidated income statements for the years then ended;
- the consolidated statements of comprehensive income for the years then ended;
- the consolidated statements of changes in equity for the years then ended;
- the consolidated statements of cash flows for the years then ended; and
- notes to the consolidated financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated financial position of the Entity as at December 31, 2021 and 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the

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"***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements for the year ended December 31, 2021. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have determined the matters described below to be the key audit matters to be communicated in our auditors' report.

Evaluation of the impairment analysis for goodwill and indefinite life intangible assets

Description of the matter

We draw attention to Note 2(c) and Note 16(c) to the financial statements. The Entity has recorded goodwill and indefinite life intangible assets of $1,695.8 million and $2,322.4 million respectively as of December 31, 2021. The Entity performs impairment testing for goodwill and indefinite life intangible assets on an annual basis or more frequently when there is an indication of impairment. An impairment is recognized if the carrying amount of an asset, or its cash generating unit (CGU), exceeds its estimated recoverable amount. The recoverable amount of an asset is the greater of its value-in-use and its fair value less costs of disposal. In determining the estimated recoverable amounts using a discounted cash flow model, the Entity's assumptions include future cash flows, long-term growth rates and pre-tax discount rates.

Why the matter is a key audit matter

We identified the evaluation of the impairment analysis for goodwill and indefinite life intangible assets as a key audit matter. This matter represented an area of significant risk of material misstatement requiring specialized skills and knowledge to evaluate the Entity's estimated recoverable amounts for goodwill and indefinite life intangible assets. Significant auditor judgment was required in evaluating the results of our audit procedures due to the high degree of sensitivity of the estimated recoverable amounts to changes in assumptions.

How the matter was addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

We evaluated the appropriateness of future cash flows by:

- Comparing the Entity's prior year expected future cash flows to the actual results to assess the Entity's budgeting process.
- Assessing future cash flows by comparing them to historical performance and against key new initiatives in the Board-approved plan.

We assessed the long-term growth rates by comparing them to available market information and historical performance.

We involved valuation professionals with specialized skills and knowledge, who assisted in evaluating the appropriateness of the pre-tax discount rates by:

- Comparing the Entity's Weighted Average Cost of Capital (WACC) against publicly available market data.
- Assessing the CGU-specific risk adjustments applied by the Entity to the WACC by considering the historic, current and future financial performance of each CGU.

Measurement of the BOX purchase consideration and the customer relationships acquired in the AST Canada and BOX business combinations

Description of the matter

We draw attention to Notes 2(c), 3(a) and 17 to the financial statements.

On August 12, 2021, the Entity completed the AST Canada acquisition which is accounted for as a business combination. The Entity's identified acquired intangible assets include customer relationships, for which the provisional amount estimated by the Entity is $79.0 million.

On January 3, 2022, the Entity obtained control of BOX Holdings ("BOX") which shall be accounted for as a business combination. As this is a subsequent event, the Entity will commence consolidating BOX in the 2022 financial statements. The Entity's ownership interest in BOX is accounted for as an equity-method investment in the 2021 financial statements. Upon obtaining control, the Entity remeasured its previously held ownership interest at $207.5 million and this comprises the purchase consideration in this business combination. The Entity's identified acquired intangible assets include customer relationships, for which the provisional amount estimated by the Entity is $305.9 million.

The Entity estimates the fair value of customer relationships acquired in a business combination based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues attributable to acquired customer relationships, customer attrition rate, and discount rates.

The Entity estimates the fair value of its ownership interest in BOX (i.e. the purchase consideration) using the income approach. The income approach is a valuation technique that calculates the fair value of a business based on the present value of future expected cash flows. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues of the acquired business and the discount rate.

Why the matter is a key audit matter

We identified the assessment of the measurement of the BOX purchase consideration and the customer relationships acquired in the AST Canada and BOX business combinations as a key audit matter. Significant auditor judgment was required due to the high degree of subjectivity and estimation uncertainty in the assumptions used to determine the fair values. Significant auditor attention and complex auditor judgment was required to evaluate the results of audit procedures. Further, specialized skills, knowledge, and experience were required to apply audit procedures and evaluate the results of those procedures.

How the matter was addressed in the audit

The primary procedures we performed to address this key audit matter included the following:

We evaluated the appropriateness of the future revenues of the acquired business, future revenues attributable to acquired customer relationships, and customer attrition rates by considering past performance of the acquired businesses.

We involved valuation professionals with specialized skills, knowledge and experience, who assisted in assessing the appropriateness of the discount rates by assessing against comparable entities and industry data.

Other Information

Management is responsible for the other information. Other information comprises:

- the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions; and

- the information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "Annual Report".

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information included in Management's Discussion and Analysis filed with the relevant Canadian Securities Commissions as at the date of this auditors' report. If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

The information, other than the financial statements and the auditors' report thereon, included in a document likely to be entitled "Annual Report" is expected to be made available to us after the date of this auditors' report. If, based on the work we will perform on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Entity's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group Entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- Determine, from the matters communicated with those charged with governance, those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our auditors' report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

The engagement partner on the audit resulting in this auditors' report is Abhimanyu Verma.

Toronto, Canada

February 7, 2022

TMX GROUP LIMITED
Consolidated Balance Sheets

(In millions of Canadian dollars)	*Note*	**December 31, 2021**	December 31, 2020
Assets			
Current Assets:			
Cash and cash equivalents	*14*	**$ 264.3**	$ 222.1
Restricted cash and cash equivalents	*14*	**180.0**	153.3
Marketable securities	*14*	**77.3**	55.8
Trade and other receivables	*15*	**132.6**	108.0
Balances of Participants and Clearing Members	*9*	**57,113.5**	30,270.4
Other current assets	*22*	**32.6**	29.9
Total Current Assets		**57,800.3**	30,839.5
Non-Current Assets:			
Goodwill and intangible assets	*16*	**5,156.9**	5,047.7
Right-of-use assets	*21*	**84.3**	82.1
Deferred income tax assets	*8*	**24.7**	22.5
Other non-current assets	*22*	**133.2**	106.8
Total Non-Current Assets		**5,399.1**	5,259.1
Total Assets		**$ 63,199.4**	$ 36,098.6
Liabilities and Equity			
Current Liabilities:			
Trade and other payables	*18*	**$ 152.8**	$ 132.4
Participants' tax withholdings	*14*	**180.0**	153.3
Balances of Participants and Clearing Members	*9*	**57,113.5**	30,270.4
Debt	*11*	**—**	160.0
Credit and liquidity facilities drawn	*11*	**2.0**	4.3
Other current liabilities	*22*	**70.7**	60.7
Total Current Liabilities		**57,519.0**	30,781.1
Non-Current Liabilities:			
Debt	*11*	**997.1**	747.5
Lease liabilities	*21*	**88.3**	86.2
Deferred income tax liabilities	*8*	**844.9**	805.1
Other non-current liabilities	*22*	**44.0**	67.2
Total Non-Current Liabilities		**1,974.3**	1,706.0
Total Liabilities		**59,493.3**	32,487.1
Equity:			
Share capital	*25*	**2,875.8**	2,943.6
Contributed surplus	*23*	**11.8**	11.1
Retained earnings		**817.1**	636.2
Accumulated other comprehensive income		**1.4**	20.6
Total Equity		**3,706.1**	3,611.5
Total Liabilities and Equity		**$ 63,199.4**	$ 36,098.6

See accompanying notes which form an integral part of these consolidated financial statements.

Approved on behalf of the Board of Directors on February 7, 2022:

/s/ Charles Winograd Chair

/s/ William Linton Director

TMX GROUP LIMITED
Consolidated Income Statements

(In millions of Canadian dollars, except per share amounts)

	Note	For the year ended December 31 2021	2020
Revenue	4	**$ 980.7**	$ 865.1
REPO and collateral interest:			
Interest income		**53.9**	160.6
Interest expense		**(53.9)**	(160.6)
Net REPO and collateral interest		**—**	—
Total revenue		**980.7**	865.1
Compensation and benefits		**253.5**	226.6
Information and trading systems		**64.6**	57.6
Selling, general and administration		**84.3**	84.7
Depreciation and amortization	16 & 21	**87.1**	80.3
Total operating expenses		**489.5**	449.2
Income from operations		**491.2**	415.9
Share of income from equity accounted investees	17	**24.2**	5.7
Net finance costs	6	**(36.1)**	(32.8)
Income before income tax expense		**479.3**	388.8
Income tax expense	8	**140.8**	109.1
Net income		**$ 338.5**	$ 279.7
Earnings per share:			
Basic	7	**$ 6.03**	$ 4.96
Diluted	7	**$ 5.99**	$ 4.91

See accompanying notes which form an integral part of these consolidated financial statements.

TMX GROUP LIMITED
Consolidated Statements of Comprehensive Income

(In millions of Canadian dollars)

		For the year ended December 31	
	Note	**2021**	2020
Net income		**$ 338.5**	$ 279.7
Other comprehensive income (loss):			
Items that will not be reclassified to the consolidated income statements:			
Actuarial gain (loss) on defined benefit pension and other post-retirement benefit plans (net of tax expense of $4.0, 2020 - tax benefit of $0.9)	*24*	**11.3**	(2.8)
Total items that will not be reclassified to the consolidated income statements		**11.3**	(2.8)
Items that may be reclassified subsequently to the consolidated income statements:			
Unrealized (loss) gain on translating financial statements of foreign operations		**(19.2)**	11.6
Total items that may be reclassified subsequently to the consolidated income statements		**(19.2)**	11.6
Total comprehensive income		**$ 330.6**	$ 288.5

See accompanying notes which form an integral part of these consolidated financial statements.

TMX GROUP LIMITED

Consolidated Statements of Changes in Equity

(In millions of Canadian dollars)

		For the year ended December 31, 2021				
	Note	Share capital	Contributed surplus	Accumulated other comprehensive income (loss)	Retained earnings	Total equity
Balance at January 1, 2021		$ 2,943.6	$ 11.1	$ 20.6	$ 636.2	$3,611.5
Net income		—	—	—	338.5	338.5
Other comprehensive (loss) income:						
Unrealized loss on translating financial statements of foreign operations		—	—	(19.2)	—	(19.2)
Actuarial gain on defined benefit pension and other post-retirement benefit plans, net of taxes	*24*	—	—	—	11.3	11.3
Total comprehensive (loss) income		—	—	(19.2)	349.8	330.6
Dividends to equity holders	*27*	—	—	—	(168.9)	(168.9)
Proceeds from exercised share options		15.1	—	—	—	15.1
Cost of exercised share options		1.5	(1.5)	—	—	—
Cost of share option plan	*23*	—	2.2	—	—	2.2
Shares repurchased under normal course issuer bid	*25*	(84.4)	—	—	—	(84.4)
Balance at December 31, 2021		$ 2,875.8	$ 11.8	$ 1.4	$ 817.1	$3,706.1

See accompanying notes which form an integral part of these consolidated financial statements.

TMX GROUP LIMITED

Consolidated Statements of Changes in Equity

(In millions of Canadian dollars)

For the year ended December 31, 2020

	Note	Share capital	Contributed surplus	Accumulated other comprehensive income	Retained earnings	Total equity
Balance at January 1, 2020		$ 2,965.1	$ 12.1	$ 9.0	$ 512.9	$ 3,499.1
Net income		—	—	—	279.7	279.7
Other comprehensive income (loss):						
Unrealized gain on translating financial statements of foreign operations		—	—	11.6	—	11.6
Actuarial loss on defined benefit pension and other post-retirement benefit plans, net of taxes	*24*	—	—	—	(2.8)	(2.8)
Total comprehensive income (loss)		—	—	11.6	276.9	288.5
Dividends to equity holders	*27*	—	—	—	(153.6)	(153.6)
Proceeds from exercised share options		31.7	—	—	—	31.7
Cost of exercised share options		3.6	(3.6)	—	—	—
Cost of share option plan	*23*	—	2.6	—	—	2.6
Shares repurchased under normal course issuer bid	*25*	(56.8)	—	—	—	(56.8)
Balance at December 31, 2020		$ 2,943.6	$ 11.1	$ 20.6	$ 636.2	$ 3,611.5

See accompanying notes which form an integral part of these consolidated financial statements.

TMX GROUP LIMITED
Consolidated Statements of Cash Flows

(In millions of Canadian dollars)

	Note	For the year ended December 31 2021	2020
Cash flows from (used in) operating activities:			
Income before income taxes		**$ 479.3**	$ 388.8
Adjustments to determine net cash flows:			
Depreciation and amortization	*16 & 21*	**87.1**	80.3
Net finance costs		**36.1**	32.8
Share of income from equity accounted investees	*17*	**(24.2)**	(5.7)
Cost of share option plan	*23*	**2.2**	2.6
Unrealized foreign exchange (gain) loss		**(0.4)**	0.9
Changes in:			
Trade and other receivables, and prepaid expenses		**(19.7)**	(4.0)
Trade and other payables		**4.8**	17.4
Provisions		**(0.6)**	(6.9)
Deferred revenue		**7.6**	1.4
Other assets and liabilities		**(16.2)**	3.1
Income taxes paid		**(114.6)**	(98.5)
		441.4	412.2
Cash flows from (used in) financing activities:			
Interest paid	*6*	**(34.6)**	(33.9)
Repayment of lease liabilities	*21*	**(8.4)**	(8.3)
Proceeds from exercised options		**15.1**	31.7
Shares repurchased under normal course issuer bid	*25*	**(84.4)**	(56.8)
Dividends paid to equity holders	*27*	**(168.9)**	(153.6)
Proceeds from issuance of debentures	*11*	**250.0**	—
Credit facility and debt financing fees	*11*	**(1.3)**	—
Net movement of Commercial Paper	*11*	**(160.0)**	(79.6)
Credit and liquidity facilities drawn, net	*11*	**(2.3)**	(3.9)
		(194.8)	(304.4)
Cash flows from (used in) investing activities:			
Interest received		**1.5**	2.3
Dividends received		**5.7**	5.4
Additions to premises and equipment and intangible assets		**(51.2)**	(67.1)
Acquisition of subsidiaries, net of cash acquired	*3*	**(138.4)**	—
Marketable securities, net		**(21.5)**	24.6
		(203.9)	(34.8)
Increase (decrease) in cash and cash equivalents		**42.7**	73.0
Cash and cash equivalents, beginning of the period	*14*	**222.1**	149.0
Unrealized foreign exchange (loss) gain on cash and cash equivalents held in foreign currencies		**(0.5)**	0.1
Cash and cash equivalents, end of the period	*14*	**$ 264.3**	$ 222.1

See accompanying notes which form an integral part of these consolidated financial statements.

NOTE 1 – GENERAL INFORMATION

TMX Group Limited is a company domiciled in Canada and incorporated under the Business Corporations Act (Ontario). The registered office is located at 100 Adelaide Street West, Toronto, Ontario, Canada.

The audited annual consolidated financial statements as at and for the year ended December 31, 2021 and 2020 (the "financial statements"), comprise the accounts of TMX Group Limited and its subsidiaries (collectively referred to as the "Company"), and the Company's interests in equity accounted investees.

TMX Group Limited controls, directly or indirectly, a number of entities which operate exchanges, markets, and clearinghouses primarily for capital markets in Canada and provides select services globally, including:

- TSX Inc. ("TSX"), which operates Toronto Stock Exchange, a national stock exchange serving the senior equities market; TSX Venture Exchange Inc. ("TSX Venture Exchange"), which operates TSX Venture Exchange, a national stock exchange serving the public venture equity market; and Alpha Exchange Inc. ("Alpha"), which also operates an exchange for the trading of securities;
- Montréal Exchange Inc. ("MX"), which operates the Montréal Exchange, Canada's national derivatives exchange, and its subsidiaries, including Canadian Derivatives Clearing Corporation ("CDCC"), the clearing house for options and futures contracts traded at MX and certain over-the-counter ("OTC") products and fixed income repurchase ("REPO") agreements. MX also holds an investment in BOX Holdings Group LLC ("BOX Holdings"), which wholly-owns BOX Options Market LLC ("BOX"). BOX provides a market for the trading of United States ("US") equity options. The Company accounts for its investment in BOX Holdings using the equity method (note 17);
- The Canadian Depository for Securities Limited and its subsidiaries ("CDS"), including CDS Clearing and Depository Services Inc. ("CDS Clearing"), which operates the automated facilities for the clearing and settlement of equities and fixed income transactions and custody of securities in Canada;
- Trayport Holdings Limited and its subsidiaries (collectively "Trayport"), a provider of technology solutions for energy traders, brokers and exchanges based in London, UK. On June 1, 2021, Trayport Limited completed the acquisition of German-based Tradesignal GmbH ("Tradesignal"), a provider of rule-based trading and technical chart analysis software (note 3);
- Shorcan Brokers Limited ("Shorcan"), a fixed income inter-dealer broker and registered exempt market dealer; and
- TSX Trust Company ("TSX Trust"), a provider of corporate trust, registrar, transfer agency and foreign exchange services. On August 12, 2021, the Company completed the acquisition of AST Investor Services Inc. (Canada) ("ASTIS") and its subsidiary AST Trust Company (Canada) ("AST Trust") (collectively, "AST Canada"), a provider of transfer agency, corporate trust, and related services (the "AST Canada Acquisition") (note 3).

NOTE 2 – BASIS OF PREPARATION

(A) BASIS OF ACCOUNTING

The financial statements have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") and IFRS Interpretations Committee ("IFRIC") interpretations, as issued by the International Accounting Standards Board ("IASB"). The financial statements were approved by the Company's Board of Directors on February 7, 2022.

The Company's significant accounting policies have been applied consistently to all periods presented in the financial statements, unless otherwise indicated. The Company has applied its judgement in presenting its significant accounting policies together with related information in the notes to the consolidated financial statements. The Company has also ordered its notes to the financial statements to emphasize the areas that are most relevant to the Company's financial performance and financial position, as viewed by management.

(B) BASIS OF MEASUREMENT

The financial statements have been prepared on the historical cost basis except for the following items which are measured at fair value:

- Certain financial instruments (note 13); and

- Liabilities arising from share-based payment plans (note 23).

The Company uses a fair value hierarchy to determine disclosure and to categorize the inputs used in its valuation of assets and liabilities carried at fair value. Fair values are categorized into: Level 1 – to the extent of the Company's use of unadjusted quoted market prices; Level 2 – valuation using observable market information as inputs; and Level 3 – valuation using unobservable market information.

(C) JUDGEMENTS AND ESTIMATES

The preparation of the financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The estimates and associated assumptions are based on historical experience and other factors that management considers to be relevant. Actual results could differ from these estimates and assumptions.

Judgements, estimates and underlying assumptions are reviewed on an ongoing basis, and revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Judgements made in applying accounting policies that have the most significant effects on the amounts recognized in these financial statements are included in the following notes:

- Revenue recognition - Identification of performance obligations and determination of the timing of when performance obligations are satisfied, either at a point in time or over time, requires judgement (note 4).
- Valuation of goodwill and indefinite life intangible assets - Purchased intangibles are valued as at the acquisition date using established methodologies and amortized over their estimated useful economic lives, except in those cases where intangibles are determined to have indefinite lives, where there is no foreseeable limit over which these intangibles would generate net cash flows. These valuations and lives are based on management's best estimates of future performance and periods over which value from the intangible assets will be derived (note 16).
- Classification of financial assets - Management has exercised judgment in the assessment of the business model within which the assets are held and in the assessment of whether the contractual terms of the financial asset are solely payments of principal and interest on the principal amounts outstanding to determine the classification of financial assets (note 13).

Information about assumptions and estimate uncertainties that have a significant risk of resulting in a material adjustment in these financial statements is included in the following notes:

- Fair values of purchase consideration, assets acquired, and liabilities assumed in business combinations – for the acquisitions of subsidiaries, the fair values under the acquisition method are based on management's best estimates using established methodologies of the fair value of the assets and liabilities acquired and disposed (notes 3 and 17).

  For acquired customer relationships, trade names, and technology in particular, the Company estimates the fair value based on the income approach. The income approach is a valuation technique that calculates the fair value of an intangible asset based on the present value of future cash flows that the asset can be expected to generate over its remaining useful life. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues attributable to acquired customer relationships, trade names, or technology, customer attrition rates, royalty-free rate, future expenses, and discount rates.
- Impairment of goodwill and indefinite life intangible assets – impairment tests are completed using the higher of fair value less costs of disposal, where available, and value-in-use calculations, determined using management's best estimates of future cash flows, long-term growth rates and appropriate discount rates (note 16);
- Measurement of defined benefit obligations for pensions, other post-retirement and post-employment benefits – the valuations of the defined benefit assets and liabilities are based on actuarial assumptions made by management with advice from the Company's external actuary (note 24);
- Provisions and contingencies – management judgement is required to assess whether provisions and/or contingencies should be recognized or disclosed, and at what amount. Management bases its decisions on past experience and other factors it considers to be relevant on a case by case basis (note 20);
- Leases – management uses judgment to determine whether the Company is reasonably certain to exercise extension options (note 21);

- Share-based payments – the liabilities associated with the Company’s share-based payment plans are measured at fair value using a recognized option pricing model based on management’s assumptions. Management’s assumptions are based on historical share price movements, dividend policy and past experience for the Company (note 23); and
- Income taxes – the accounting for income taxes requires estimates to be made, such as the recoverability of deferred tax assets and assessment of tax uncertainties. Where differences arise between estimated income tax provisions and final income tax liabilities, an adjustment is made when the difference is identified (note 8).

(D) BASIS OF CONSOLIDATION

Subsidiaries are entities controlled by the Company, and they are consolidated from the date on which control is transferred to the Company until the date that control ceases. Balances and transactions between the Company’s subsidiaries have been eliminated on consolidation. On loss of control of a subsidiary, the Company derecognizes the assets and liabilities of the entity. Any gain or loss is recognized in the consolidated income statement and any retained interests measured at fair value at the date of loss of control. Changes in the Company's interest that do not result in a loss of control are accounted for as equity transactions.

Equity accounted investees are entities in which the Company has determined it has significant influence, but not control, over the financial and operating policies. Investments in these entities are recognized initially at cost and subsequently accounted for using the equity method of accounting.

(E) FUNCTIONAL AND PRESENTATION CURRENCY

Items included in the financial statements of each of the Company’s entities are measured using the currency of the primary economic environment in which the entity operates (the “functional currency”). The financial statements are presented in Canadian dollars, which is the Company’s functional and presentation currency.

The assets and liabilities of the Company’s foreign operations for which the Canadian dollar is not the functional currency are translated at the rate of exchange in effect at the balance sheet date. Revenue and expenses are translated at the relevant daily exchange rates. The resulting unrealized exchange gain or loss is included in accumulated other comprehensive income within equity.

Revenues earned, expenses incurred and assets purchased in foreign currencies are translated into the functional currency at the prevailing exchange rate on the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated at the period end rate or at the transaction rate when settled. Resulting unrealized and realized foreign exchange gains and losses are recognized within other revenue in the consolidated income statement for the period.

NOTE 3 – ACQUISITIONS OF SUBSIDIARIES

(A) AST CANADA

On August 12, 2021, the Company completed the AST Canada Acquisition for $165.0, adjusted for certain items (see below). The AST Canada Acquisition is accounted for as a business combination in accordance with IFRS 3, *Business Combinations*.

On August 31, 2021, through a series of post-closing legal and tax steps, ASTIS distributed its shares of AST Trust to its parent, TMX Group Limited, and on September 1, 2021, AST Trust and TSX Trust amalgamated to form a newly amalgamated corporation continued as TSX Trust. ASTIS was renamed TMX Investor Solutions Inc.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed. In determining the preliminary purchase price allocation, the Company considered, among other factors, the intended future use of acquired assets, analysis of historical financial performance and estimates of future performance of AST Canada. The Company has not yet obtained all the information necessary to finalize the purchase price allocation, including the valuation of identifiable intangible assets, income taxes, certain other assets and liabilities, and final working capital adjustments. The Company will finalize these amounts within twelve months following the acquisition date. Any changes resulting from facts and circumstances that existed as of the acquisition date will result in retrospective adjustments to the provisional amounts below, recognized at the acquisition date. AST Canada is included in the Capital Formation operating segment, under TSX Trust (note 5).

Purchase consideration:		
Base purchase price	$	**165.0**
Working capital adjustments		**2.2**
Closing debt		**(0.5)**
Company transaction expense and other adjustments		**(2.1)**
Total purchase consideration	$	**164.6**

Fair value of identifiable assets acquired and liabilities assumed:		
Cash and cash equivalents	$	**30.9**
Trade and other receivables		**10.2**
Intangible assets		**94.7**
Goodwill		**45.8**
Deferred tax liabilities, net		**(12.6)**
Other assets and liabilities, net		**(4.4)**
Fair value of net assets acquired	$	**164.6**

The goodwill recorded on acquisition is largely reflective of the synergies resulting from combining AST Canada's complementary portfolio of services with those of TSX Trust business to enhance and broaden the scope and scale of TSX Trust's business. None of the goodwill recognized is deductible for income tax purposes.

Intangible assets	Acquisition date fair value	Accumulated amortization	Net book value	Useful life
Customer relationships	79.0	1.6	77.4	19 years
Technology	15.7	0.4	15.3	15 years
Total	**94.7**	**2.0**	**92.7**	

For the year ended December 31, 2021, the Company incurred $3.1 in acquisition and related costs (2020 - $1.7). These costs are included in 'Selling, general and administration' and 'Compensation and benefits' in the consolidated income statements.

For the year ended December 31, 2021, AST Canada contributed revenue of $13.7 and net loss of $1.8 in the post-combination period. Had the acquisition of AST Canada occurred as of January 1, 2021, the Company's consolidated income statement for the year ended December 31, 2021 would have included revenue of $39.2 and net loss of $4.8, inclusive of pre-acquisition revenue of $25.5, and net loss of $3.0. In determining these amounts, management has assumed that the fair value adjustments, determined provisionally, that arose on the acquisition date, would have been the same if the AST Canada Acquisition had occurred on January 1, 2021. The pre-acquisition results include transaction expenses borne by AST Canada prior to being acquired by the Company.

(B) TRADESIGNAL

On June 1, 2021, the Company completed the acquisition of Tradesignal for €6.5 ($9.6), subject to working capital adjustments. The acquisition has been accounted for as a business combination with the Company consolidating 100% of the results of Tradesignal's operations and its assets and liabilities from the date of acquisition. The allocation of the purchase price will be finalized within twelve months following the acquisition date. The Company estimates that the majority of the purchase price relates to goodwill and intangible assets. Tradesignal is included in the Global Solutions, Insights & Analytics operating segment, under Trayport (note 5).

For the year ended December 31, 2021, the Company incurred $0.3 in acquisition and related costs (2020 - nil). These costs are included in 'Selling, general and administration' in the consolidated income statements.

On July 22, 2021, Tradesignal was renamed Trayport Germany GmbH.

NOTE 4 – REVENUE

Revenue is recognized when performance obligations have been satisfied. The identification of performance obligations and the determination of the timing of when performance obligations are satisfied, either at a point in time or over time, require judgement.

Substantially all of the Company's revenues are considered to be revenues from contracts with customers. The related accounts receivable balances are recorded in the balance sheets as trade receivables and generally have terms of 30 days. The majority of deferred revenue represents contract liabilities related to listing fees (note 19).

The majority of the Company's contracts are short–term in nature and therefore the Company has elected to apply the practical expedient to not disclose the remaining performance obligations in contracts with an expected duration of 12 months or less. Contracts that have an expected duration of 12 months or longer are recognized on an 'as–invoiced' basis and the Company has chosen to apply the practical expedient to not disclose revenue related to the remaining performance obligations in these contracts. These contracts also include variable consideration related to usage that are constrained and not included in the transaction price and thus not included in the remaining performance obligation disclosure.

The Company's primary contracts from customers are disaggregated by major products and service lines below, and categorized by operating segments as identified and disclosed in note 5.

	For the year ended December 31,	
Global Solutions, Insights & Analytics	**2021**	2020
Trayport	$ **150.6**	$ 136.7
Subscribers and usage	**104.9**	98.9
Other GSIA	**89.1**	88.1
	344.6	323.7
Capital Formation		
Initial listing fees	**21.7**	10.1
Additional listing fees	**108.2**	81.8
Sustaining fees	**77.0**	69.3
Other issuer services	**50.8**	27.8
	257.7	189.0
Derivatives Trading & Clearing	**142.5**	126.2
Equities and Fixed Income Trading & Clearing		
Equities and fixed income trading	**125.6**	127.0
Equities and fixed income clearing, settlement, depository and other services (CDS)	**110.3**	99.2
	235.9	226.2
Total Revenue	$ **980.7**	$ 865.1

(A) GLOBAL SOLUTIONS, INSIGHTS AND ANALYTICS

Global solutions, insights and analytics ("GSIA") revenue includes real time data, other market data products, data delivery solutions and technology solutions.

Real time market data revenue is recognized at the point in time the performance obligation is satisfied, based on estimated usage as reported by customers and vendors. The Company conducts periodic audits of the information provided to determine any adjustments to estimated revenue. However, the amounts owing from the audits cannot be estimated as they are dependent on factors outside of the Company's control, and the results of each audit have limited predictive value for future audits.

Trayport revenue includes subscriber fees, which are paid on a monthly basis for access to the platform. Subscriber revenue is recognized over time as the performance obligation is satisfied.

Performance obligations for other global solutions, insights and analytics contracts are satisfied, and revenue is recognized, when the services are provided.

(B) CAPITAL FORMATION

Capital formation revenue includes revenue from listings services and other issuer services. Listings services revenue includes revenue generated from initial listings, additional listings and sustaining services.

Revenue from new issuers include the initial listing fee and the first-year sustaining fee. These fees, either billed upfront or when the listing occurs, contain a single performance obligation. When the initial fee creates a material right, it is deferred and recognized over 12 months. Sustaining services for new issuers are recognized on a straight-line basis over the remainder of the year as those services are provided. Performance obligations for additional listings are satisfied at a point in time, and revenue is recognized when the additional listing occurs, which is also when the fee is billed. Sustaining services for existing issuers are billed during the first quarter of the year and the related performance obligation is satisfied on a straight-line basis over the year.

Other issuer services include revenue from registrar and transfer agency services and corporate trust services which is recognized as the services are provided. Margin income from funds held and administered on behalf of clients is also included in other issuer services revenue. Other issuer services have separate performance obligations that are satisfied at a point in time, which is when the services are provided to the customer.

(C) DERIVATIVES TRADING AND CLEARING

Derivatives trading and clearing revenue includes revenue from trading and clearing activities.

Trading and related revenues for derivatives markets contain one performance obligation related to trade execution, which mostly occurs instantaneously. Revenue is recognized in the month in which the trades are executed or when the related services are provided. Performance obligations associated with derivatives clearing are satisfied within a short period of time. Trade execution and novation occur either instantaneously, or within a short period of time.

Rebates are allocated and recorded as a reduction in revenue in the consolidated income statement in the period to which they relate.

As part of its REPO clearing service, CDCC earns interest income and incurs interest expense on all REPO transactions that clear through CDCC. The interest income and interest expense are equal; however as CDCC does not have a legal right to offset these amounts, they are recognized separately on the consolidated income statement. The interest income is earned, and the interest expense incurred, over the term of the REPO agreements.

(D) EQUITIES AND FIXED INCOME TRADING AND CLEARING

Equities and fixed income trading and clearing revenue includes revenue from equities and fixed income trading, clearing, settlement, and depository services.

Trading and related revenues for equities and fixed income contain one performance obligation related to trade execution, which occurs instantaneously. Revenue is recognized in the month in which the trades are executed or when the related services are provided.

Revenues related to equities and fixed income clearing, settlement and depository services are recognized as follows:

- Clearing services include the reporting and confirmation of all trade types within the multilateral clearing and settlement system referred to as CDSX. Clearing services also include the netting and novation of exchange trades through CDS's Continuous Net Settlement ("CNS") service prior to settlement. The Company has identified two performance obligations related to clearing and settlement and allocates the transaction price on the basis of relative stand–alone selling prices. These are generally satisfied at a point in time and recognized in the month in which the services are provided. Clearing services and the related settlement occur within a short period of time. Other clearing related fees are recognized when services are performed.
- Depository fees are charged for custody of securities, depository related activities and processing of entitlement and corporate actions and are recognized when the services are performed.
- Under the CDS recognition orders granted by the Ontario Securities Commission ("OSC") and the Autorité des marchés financiers ("AMF"), CDS is required to share any annual revenue increases on clearing and other core CDS Clearing services, as compared to revenues for the twelve-month period ended October 31, 2012, on a 50:50 basis with Participants. Beginning January 1, 2015 and prior to August 1, 2021, CDS also shares with Participants, on a 50:50 basis, any annual increases in revenue applicable to the New York Link/Depository Trust Company Direct Link Liquidity Premium. Effective August 1, 2021, as a result of New York Link fee change, the pass through liquidity facility fees are no longer subject to 50:50 rebate. These amounts are calculated and recorded on a monthly basis as a reduction of revenue, which results in the recognition of revenue at the amount to which the Company is entitled.
- On behalf of Participants, CDS Clearing incurs certain facility fees, which are reimbursed by the Participants. Since CDS acts as the principal, offsetting revenue and expense amounts related to these facility fees are recognized upon satisfaction of performance obligations.

- The Company records an equal amount of interest income and interest expense on Participant cash collateral balances. As the Company does not have a legal right to offset these amounts, they are recognized separately on the consolidated income statement.
- Rebates are allocated and recorded as a reduction in revenue in the consolidated income statement in the period to which they relate.

NOTE 5 – SEGMENT INFORMATION

The Company has four operating segments. An operating segment is a component of the Company that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Company’s other components and for which discrete financial information is available. Operating segments are reported in a manner consistent with the internal reporting provided to the Chief Operating Decision Maker (“CODM”). The CODM, who is responsible for allocating resources and assessing performance of the operating segments, has been identified as the Chief Executive Officer.

(A) INFORMATION ABOUT REPORTABLE SEGMENTS

The Company has four reportable segments:

- **Global Solutions, Insights & Analytics:** We deliver equities data, index data as well as integrated data sets to fuel high-value proprietary and third party analytics which help clients make better trading and investment decisions. We also provide solutions to European and global wholesale energy markets for price discovery, trade execution, post-trade transparency and straight through processing. The Company's operations included in the Global Solutions, Insights & Analytics segment are TMX Datalinx, Co-Location, and Trayport.
- **Capital Formation:** Our exchanges are integral to the efficient operation of the capital markets. We continually support the capital markets community by providing companies of all types and at all stages of development with access to equity capital, while also providing market oversight to ensure market integrity. The Company's operations included in the Capital Formation segment are: Toronto Stock Exchange, a national stock exchange serving the senior equities market; TSX Venture Exchange, a national stock exchange serving the public venture equity market, and TSX Trust, a provider of corporate trust, registrar, transfer agency and foreign exchange services.
- **Derivatives Trading & Clearing:** We are accelerating new product creation and leverage our unique market position to benefit from increasing demand for derivatives products both in Canada and globally. The Company's operations included in the Derivatives Trading and Clearing segment are Montréal Exchange, a national derivatives exchange; and Canadian Derivatives Clearing Corporation ("CDCC"), a clearinghouse for options and futures contracts and certain over-the-counter products and fixed income repurchase agreements.
- **Equities and Fixed Income Trading & Clearing:** We operate fair and transparent markets, with innovative, efficient, and reliable platforms for equities and fixed income trading and clearing. The Company's operations included in the Equities and Fixed Income Trading & Clearing segment are the trading operations of Toronto Stock Exchange, TSX Venture Exchange, and TSX Alpha Exchange; CDS Clearing and Depository Services Inc. ("CDS Clearing"), an automated facility for the clearing and settlement of equities and fixed income transactions and custody of securities in Canada and Shorcan Brokers Limited, a fixed income inter-dealer broker.

The Company has certain revenue and corporate costs not allocated to the operating segments. Revenue related to foreign exchange gains and losses and other services are presented in the other segment. Costs and expenses related to the amortization of purchased intangibles, along with certain consolidation and elimination adjustments, are also presented in the other segment.

Information related to each reportable segment is as follows:

For the year ended						**December 31, 2021**
	Global Solutions Insights & Analytics	**Capital Formation**	**Derivatives Trading & Clearing**	**Equities and Fixed Income Trading & Clearing**	**Other**	**Total**
Revenue (external)	**$ 344.6**	**$ 257.7**	**$ 142.5**	**$ 235.9**	**$ —**	**$ 980.7**
Inter-segment revenue	**0.3**	**0.2**	**—**	**2.3**	**(2.8)**	**—**
Total revenue	**$ 344.9**	**$ 257.9**	**$ 142.5**	**$ 238.2**	**$ (2.8)**	**$ 980.7**
Income from operations	**$ 219.7**	**$ 144.6**	**$ 65.2**	**$ 123.2**	**$ (61.5)**	**$ 491.2**
Selected items:						
Depreciation and amortization	**$ 9.7**	**$ 0.6**	**$ 1.5**	**$ 0.4**	**$ 74.9**	**$ 87.1**

For the year ended						December 31, 2020
	Global Solutions Insights & Analytics	Capital Formation	Derivatives Trading & Clearing	Equities and Fixed Income Trading & Clearing	Other	Total
Revenue (external)	$ 323.7	$ 189.0	$ 126.2	$ 226.2	$ —	$ 865.1
Inter-segment revenue	0.3	0.2	—	1.9	(2.4)	—
Total revenue	$ 324.0	$ 189.2	$ 126.2	$ 228.1	$ (2.4)	$ 865.1
Income from operations	$ 207.8	$ 100.0	$ 60.0	$ 119.0	$ (70.9)	$ 415.9
Selected items:						
Depreciation and amortization	$ 7.7	$ 0.1	$ 1.1	$ 0.5	$ 70.9	$ 80.3

The CODM assesses the performance of the operating segments based on income from operations, which is not a term defined within IFRS. This measure of profit excludes share of income from equity accounted investees, impairment charges, and other costs and expenses that relate to individual events of an infrequent nature.

Income from operations is an important indicator of the Company's ability to generate liquidity through operating cash flow to fund future working capital needs, service outstanding debts, and fund future capital expenditures. Impairment charges includes impairment of goodwill and intangibles originating from acquisitions and is not considered an operating item. The intent of this performance measure is to provide additional useful information to investors and analysts; however, it should not be considered in isolation.

(B) INFORMATION ABOUT GEOGRAPHICAL AREAS

The Company’s revenue by geography is as follows:

For the year ended	**December 31, 2021**	December 31, 2020
Canada	**$ 681.1**	$ 582.6
US	**116.2**	112.6
UK	**69.1**	67.7
Germany	**27.2**	25.1
Other countries	**87.1**	77.1
	$ 980.7	$ 865.1

Revenue is allocated based on the country to which customer invoices are addressed.

No single customer generates revenues greater than ten percent of the Company's total revenues.

The Company's non-current assets by geography is as follows:

As at		December 31, 2021		December 31, 2020
Canada	$	**4,299.7**	$	4,168.7
UK		**1,002.0**		1,021.3
US		**50.5**		39.4
Other countries		**0.2**		0.8
	$	**5,352.4**	$	5,230.2

Non-current assets above are primarily comprised of goodwill and intangible assets, investments in equity accounted investees, right-of-use assets and other assets and excludes both accrued employee benefit assets and deferred income tax assets.

NOTE 6 – FINANCE INCOME AND FINANCE COSTS

Finance income comprises interest income on funds invested and changes in the fair value of marketable securities. Finance costs comprise interest expense on borrowings and lease liabilities.

Net finance costs for the year is as follows:

For the year ended		December 31, 2021		December 31, 2020
Finance income				
Interest income on funds invested	$	**1.6**	$	2.1
		1.6		2.1
Finance costs				
Interest expense on borrowings, including foreign exchange and amortization of financing fees (note 11)		**(34.4)**		(31.4)
Interest expense on lease liabilities (note 21)		**(3.2)**		(3.3)
Other expenses		**(0.1)**		(0.2)
		(37.7)		(34.9)
Net finance costs	$	**(36.1)**	$	(32.8)

NOTE 7 – EARNINGS PER SHARE

Basic earnings per share is determined by dividing net income by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share is determined by dividing the net income by the weighted average number of common shares outstanding during the reporting period, adjusted for the effects of all potential dilutive common shares arising from share options granted to employees.

Basic and diluted earnings per share for the period are as follows:

For the year ended		December 31, 2021		December 31, 2020
Net income	$	**338.5**	$	279.7
Weighted average number of common shares outstanding – basic		**56,098,460**		56,425,302
Effect of dilutive share options		**376,485**		524,988
Weighted average number of common shares outstanding – diluted		**56,474,945**		56,950,290
Basic earnings per share	$	**6.03**	$	4.96
Diluted earnings per share	$	**5.99**	$	4.91

NOTE 8 – INCOME TAXES

(A) INCOME TAX EXPENSE RECOGNIZED IN THE CONSOLIDATED INCOME STATEMENT

Income tax expense comprises current and deferred income tax. Income tax expense is recognized in the consolidated income statement except to the extent that it relates to items recognized directly in equity or in other comprehensive income.

Income tax expense recognized in the consolidated income statement for the period is as follows:

For the year ended	December 31, 2021	December 31, 2020
Current income tax expense:		
Income tax for the current period	$ 119.4	$ 105.5
Adjustments in respect of prior years	(0.8)	(0.4)
Deferred income tax expense:		
Origination and reversal of temporary differences	$ 6.8	$ (3.0)
Adjustments in respect of prior years	(0.3)	(0.4)
Changes in substantively enacted income tax rates	19.6	7.4
Previously unrecognized tax losses of a prior period	(3.9)	—
Total income tax expense	$ 140.8	$ 109.1

Current income tax is the expected income tax payable or receivable on the taxable income or loss for the period using income tax rates enacted or substantively enacted at the reporting date in the countries where the Company operates and any adjustments to income tax payable in respect of previous years.

The Company maintains provisions for uncertain tax positions that it believes appropriately reflect the risk of the tax positions and the probability of acceptance of the tax treatment by the relevant authorities. Uncertain income tax positions are recognized in the financial statements using management's best estimate of the amount expected to be paid.

Deferred income tax is recognized in respect of certain temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred income tax is measured at the income tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted at the reporting date.

Income tax expense attributable to income differs from the amounts computed by applying the combined federal and provincial income tax rate of 26.5% (2020 – 26.5%) to income before income taxes as a result of the following:

For the year ended	December 31, 2021	December 31, 2020
Income before income tax expense	$ 479.3	$ 388.8
Computed expected income tax expense	$ 127.0	$ 103.0
Non-deductible expenses	0.8	1.1
Rate differential due to various jurisdictions	(5.5)	(4.4)
Adjustments in respect of prior years	(1.1)	(0.8)
Changes in substantively enacted income tax rates	19.6	7.4
AST Canada acquisition costs (note 3)	0.5	0.4
Share of net income from equity accounted investees	2.3	1.5
Previously unrecognized tax losses of a prior period	(3.9)	—
Other	1.1	0.9
Income tax expense	$ 140.8	$ 109.1

During the year ended December 31, 2021, the UK corporate income tax rate increase from 19% to 25% (effective April 1, 2023) was substantively enacted. Net deferred income tax liabilities were increased by $19.6 as a result, with a corresponding increase in deferred income tax expense of $19.6.

During the year ended December 31, 2020, it was substantively enacted that the previously expected UK corporate income tax rate decrease from 19% to 17% (to be effective April 1, 2020) would not occur. As a result, net deferred income tax liabilities increased by $7.4, with a corresponding increase in deferred income tax expense of $7.4.

(B) DEFERRED INCOME TAX ASSETS AND LIABILITIES

The Company recognizes a deferred income tax asset only to the extent that it is probable that future taxable income will be available against which it can be utilized. Deferred income tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Deferred income tax assets (liabilities) as of December 31 are attributable to the following:

	Assets		Liabilities		Net	
	2021	2020	**2021**	2020	**2021**	2020
Premises and equipment	**$ 1.4**	$ 2.7	**$ (1.3)**	$ (0.8)	**$ 0.1**	$ 1.9
Cumulative eligible capital / intangible assets	**13.6**	14.1	**(872.0)**	(841.5)	**(858.4)**	(827.4)
Tax loss carry-forwards	**23.3**	16.6	**—**	—	**23.3**	16.6
Employee future benefits	**5.0**	5.3	**(5.7)**	(1.6)	**(0.7)**	3.7
Share-based payments	**8.9**	16.6	**—**	—	**8.9**	16.6
Other	**7.2**	6.5	**(0.6)**	(0.5)	**6.6**	6.0
Deferred income tax assets (liabilities)	**$ 59.4**	$ 61.8	**$ (879.6)**	$ (844.4)	**$ (820.2)**	$ (782.6)
Set off of tax	**(34.7)**	(39.3)	**34.7**	39.3	**—**	—
Net deferred income tax assets (liabilities)	**$ 24.7**	$ 22.5	**$ (844.9)**	$ (805.1)	**$ (820.2)**	$ (782.6)

Income tax assets and liabilities are offset in the financial statements if there is a legally enforceable right to offset them and they relate to income taxes levied by the same taxation authority on the same taxable entity, or on different taxable entities but the Company intends to settle them on a net basis or where the income tax assets and liabilities will be realized simultaneously.

Movements in the deferred income tax balances in the year are as follows:

	Premises and equipment	Cumulative eligible capital/ intangible assets	Tax loss carry-forwards	Employee future benefits	Share-based payments	Other	Total
Balance at January 1, 2020	$ 3.5	$ (822.9)	$ 17.5	$ 3.7	$ 13.5	$ 7.3	$ (777.4)
Recognized in net income	(1.6)	(2.3)	(0.8)	(1.0)	3.1	(1.4)	(4.0)
Recognized through acquisition of VisoTech	—	(1.5)	—	—	—	—	(1.5)
Recognized in other comprehensive loss	—	—	—	0.9	—	—	0.9
Effect of movements in exchange rates	—	(0.6)	(0.1)	—	—	0.1	(0.6)
Balance at December 31, 2020	1.9	(827.3)	16.6	3.6	16.6	6.0	(782.6)
Recognized in net income	**(1.5)**	**(13.6)**	**0.5**	**(0.3)**	**(7.7)**	**0.4**	**(22.2)**
Recognized through acquisition of AST Canada	**(0.3)**	**(18.8)**	**6.2**	**—**	**—**	**0.3**	**(12.6)**
Recognized in other comprehensive income	**—**	**—**	**—**	**(4.0)**	**—**	**—**	**(4.0)**
Effect of movements in exchange rates	**—**	**1.3**	**—**	**—**	**—**	**(0.1)**	**1.2**
Balance at December 31, 2021	**$ 0.1**	**$ (858.4)**	**$ 23.3**	**$ (0.7)**	**$ 8.9**	**$ 6.6**	**$ (820.2)**

As at December 31, 2021, $18.5 and $4.8 of the above deferred income tax assets related to tax losses and credits incurred in Canada and the US, respectively (2020 – $12.5 and $4.1, respectively). Recoverability of these assets is dependent upon the availability of future taxable profits within these legal entities. The Company believes that these losses will be recoverable.

Deferred income tax assets have not been recognized in respect of the following temporary differences:

As at	**December 31, 2021**	December 31, 2020
Tax losses	**$ 20.2**	$ 37.2
Other deductible temporary differences	**207.9**	172.4
	$ 228.1	$ 209.6

At December 31, 2021, $8.6 (2020 – $27.1) of the above income tax losses will expire by 2037 with the remainder not subject to expiry. Deferred income tax assets have not been recognized in respect of these items as it is not probable that future taxable profit will be available against which the Company can utilize the tax losses. The Company will however continue to pursue tax planning strategies to utilize the tax losses where possible.

At December 31, 2021, deferred income tax liabilities for temporary differences of $0.1 (2020 - $0.7) relating to investments in certain foreign subsidiaries were not recognized as the Company is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. Temporary differences relating to the remaining domestic subsidiaries have not been recognized as the temporary difference can be settled without tax consequences.

NOTE 9 – BALANCES OF PARTICIPANTS AND CLEARING MEMBERS

Balances of Participants and Clearing Members on the consolidated balance sheets are comprised of:

As at	December 31, 2021	December 31, 2020
Balances of Participants	$ 11,168.8	$ 5,218.1
Balances of Clearing Members	40,407.5	19,050.3
Clearing Members cash collateral	5,537.2	6,002.0
Balances of Participants and Clearing Members	**$ 57,113.5**	$ 30,270.4

There is no net impact on the consolidated net assets as an equivalent amount is recognized in both assets and liabilities.

(A) CDS CLEARING, SETTLEMENT AND PARTICIPANT BALANCES

Balances of Participants includes the cash collateral pledged and deposited with CDS Clearing and cash dividends, interest and other cash distributions awaiting distribution ("entitlements and other funds") on securities held under custody in the depository. Cash collateral is held by CDS Clearing at the Bank of Canada, with commercial banks with a minimum credit rating of A/R1-low or better, and National Securities Clearing Corporation ("NSCC")/Depository Trust Company ("DTC") and is recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the Participants.

	December 31, 2021	December 31, 2020
Entitlements and other funds	$ 11.7	$ 10.1
Participants cash collateral	11,157.1	5,208.0
Balances of Participants	**$ 11,168.8**	$ 5,218.1

During 2021, the increase in above participants' cash collateral is driven by Participants' trading market activity requiring Participants to post substantially more collateral.

The margin deposits of CDS Clearing are held in liquid instruments. CDS Clearing's New York Link ("NYL") service does not apply strict limits to a Participant's end-of-day payment obligation, creating the potential for unlimited liquidity risk exposure if a user of the service were to default on its obligation. CDS Clearing manages this risk through active monitoring of payment obligations and a committed liquidity facility which covers the vast majority of potential Participant default scenarios. Residual liquidity risk in excess of CDS Clearing's liquidity facility is transferred to surviving Participant users of the NYL service and as a result CDS Clearing's liquidity risk exposure is limited to a maximum of its available liquidity facility.

At December 31, 2021, as a result of calculations of Participants' exposure, the total amount of collateral required by CDS Clearing was $14,404.1 (2020 – $8,835.2). The actual collateral pledged to CDS Clearing at December 31 is summarized below:

	December 31, 2021	December 31, 2020
Cash (included within Balances of Participants on the consolidated balance sheets)	$ 11,157.1	$ 5,208.0
Treasury bills and fixed income securities	4,687.8	5,814.8
Total collateral pledged	**$ 15,844.9**	$ 11,022.8

Treasury bills and fixed income securities collateral are not included in the Company's consolidated balance sheets.

(B) CDCC CLEARING, SETTLEMENT AND CLEARING MEMBER BALANCES

Balances of Clearing Members includes balances of clearing members of CDCC ("Clearing Members") as follows:

- Daily settlements due from, and to, Clearing Members – These balances result from marking open futures positions to market and settling option transactions each day. These amounts are required to be collected from and paid to Clearing Members prior to the commencement of trading the next day. There is no net impact on the consolidated net assets as an equivalent amount is recognized in both assets and liabilities.

At December 31, 2021, the gross amount of daily settlements due from, and to, Clearing Members was $188.8 and $188.8, respectively (2020 – $235.5 and $235.5). These balances are then netted by Clearing Member at the balance sheet date, for cash to be paid or received on mark-to-market on futures, options premium and cash margin shortage or excess.

- Net amounts receivable/payable on open REPO agreements – OTC REPO agreements between buying and selling Clearing Members are novated to CDCC whereby the rights and obligations of the Clearing Members under the REPO agreements are cancelled and replaced by new agreements with CDCC. Once novation occurs, CDCC becomes the counterparty to both the buying and selling Clearing Member. As a result, the contractual right to receive and return the principal amount of the REPO as well as the contractual right to receive and pay interest on the REPO is thus transferred to CDCC.

  These balances represent outstanding balances on open REPO agreements. At December 31, 2021, the gross amount of open REPO contracts receivable and payable was $85,212.1 and $85,212.1 (2020 – $66,217.2 and $66,217.2). These contracts when broken down by Clearing Member give rise to gross receivable and gross payable positions. As allowed under CDCC rules, receivable and payable balances outstanding with the same Clearing Member are offset when they are in the same currency and are to be settled on the same day, as CDCC has a legally enforceable right to offset and the intention to net settle. The balances include both the original principal amount of the REPO and the accrued interest, both of which are carried at amortized cost. As CDCC is the central counterparty, an equivalent amount is recognized in both the Company's assets and liabilities.

The following table sets out the carrying amounts of Balances of Clearing Members that are subject to offsetting, enforceable master netting arrangements and similar arrangements:

As at			**December 31, 2021**
Asset/(Liability)	**Gross asset or (liability) for counterparties in a net asset / (net liability) position**	**Liabilities / (assets) offset against net assets/(net liabilities) by counterparties**	**Net amounts presented in the consolidated balance sheet**
Financial assets			
Daily settlements due from Clearing Members	$ **164.8**	$ **(6.9)**	$ **157.9**
Net amounts receivable on open REPO agreements	**59,309.7**	**(19,060.1)**	**40,249.6**
	59,474.5	**(19,067.0)**	**40,407.5**
Financial liabilities			
Daily settlements due to Clearing Members	**(182.0)**	**24.1**	**(157.9)**
Net amounts payable on open REPO agreements	**(66,152.0)**	**25,902.4**	**(40,249.6)**
	(66,334.0)	**25,926.5**	**(40,407.5)**
Net amount	$ **(6,859.5)**	$ **6,859.5**	$ **—**

As at			December 31, 2020
Asset/(Liability)	Gross asset or (liability) for counterparties in a net asset / (net liability) position	Liabilities / (assets) offset against net assets/(net liabilities) by counterparties	Net amounts presented in the consolidated balance sheet
Financial assets			
Daily settlements due from Clearing Members	$ 233.7	$ (0.4)	$ 233.3
Net amounts receivable on open REPO agreements	42,080.6	(23,263.6)	18,817.0
	42,314.3	(23,264.0)	19,050.3
Financial liabilities			
Daily settlements due to Clearing Members	(235.2)	1.9	(233.3)
Net amounts payable on open REPO agreements	(42,953.6)	24,136.6	(18,817.0)
	(43,188.8)	24,138.5	(19,050.3)
Net amount	$ (874.5)	$ 874.5	$ —

For the year ended December 31, 2021, the largest daily settlement amount due from a Clearing Member was $360.4 (2020 – $1,651.0), and the largest daily settlement amount due to a Clearing Member was $392.3 (2020 – $1,240.8). These settlement amounts do not reflect net amounts from open REPO agreements, which are also due from Clearing Members.

Clearing Members' cash collateral are comprised of cash margin deposits and cash clearing fund deposits from Clearing Members which are held by CDCC with the Bank of Canada or with commercial banks with a minimum credit rating of A/R1-low or better. Cash collateral, either as margin against open positions or as part of the clearing fund, are held by CDCC and are recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the

Clearing Members. There is no net impact on the consolidated net assets as an equivalent amount is recognized in both assets and liabilities.

The actual collateral pledged to CDCC at December 31 is summarized below:

		December 31, 2021		December 31, 2020
Cash collateral held:				
Clearing Members' cash margin deposits	**$**	**3,121.3**	$	3,624.3
Clearing fund cash deposits		**2,415.9**		2,377.7
	$	**5,537.2**	$	6,002.0

Non-cash margin deposit and non-cash clearing fund deposit collateral pledged to CDCC under irrevocable agreements is held in government securities, put letters of guarantee and equity securities with approved depositories. Clearing Members may also pledge escrow receipts directly with CDCC. The non-cash collateral pledged to CDCC at December 31 is summarized below:

		December 31, 2021		December 31, 2020
Non-cash collateral pledged:				
Non-cash margin deposits	**$**	**13,762.4**	$	12,680.8
	$	**13,762.4**	$	12,680.8

Non-cash collateral is not included in the Company's consolidated balance sheets.

(C) TSX TRUST ASSETS UNDER ADMINISTRATION

TSX Trust administers various segregated funds, representing amounts held on behalf of clients in connection with corporate trust and similar services. The actual assets under administration by TSX Trust at December 31 are summarized below:

		December 31, 2021		December 31, 2020
Cash	**$**	**1,560.2**	$	676.8
Treasury bills and fixed income securities		**362.8**		804.8
Total assets under administration	**$**	**1,923.0**	$	1,481.6

Since these amounts are not controlled by TSX Trust or by the Company, assets under administration are not included in the consolidated balance sheet.

NOTE 10 – FINANCIAL RISK MANAGEMENT

The Company is exposed to a number of financial risks as a result of its operations, which are discussed below. It seeks to monitor and minimize adverse effects from these risks through its risk management policies and processes.

(A) GENERAL BUSINESS RISK

General business risk refers to the risks and potential losses arising from the Company's administration and operation as a business enterprise that are unrelated to participant default. General business risk includes any potential impairment of the Company's financial position (as a business concern) as a consequence of a decline in its revenues or an increase in its expenses. Such impairment can be caused by a variety of business factors, including poor execution of business strategy, negative cash flows, or unexpected and excessively large operating expenses.

(B) CREDIT RISK

Credit risk is the risk of loss due to the failure of a borrower, counterparty, Clearing Member, or Participant to honour their financial obligations. It arises principally from the Company's clearing operations of CDS Clearing and CDCC, the brokerage operations of Shorcan, cash and cash equivalents, restricted cash and cash equivalents, marketable securities, trade receivables, and total return swaps ("TRSs").

(i) Clearing and/or brokerage operations

The Company is exposed to credit risk in the event that Participants, in the case of CDS Clearing; Clearing Members, in the case of CDCC; and clients, in the case of TSX Trust and Shorcan, fail to fulfill their financial obligations.

CDS Clearing

CDS Clearing is exposed to the risk of loss due to the failure of a Participant in CDS Clearing's clearing and settlement services to honour its financial obligations. To a lesser extent, CDS Clearing is exposed to credit risk through the performance of services in advance of payment.

Through the clearing and settlement services operated by CDS Clearing, credit risk exposures are created. During the course of each business day, transaction settlements can result in a net payment obligation of a Participant to CDS Clearing or the obligation of CDS Clearing to pay a Participant. The potential failure of the Participant to meet its payment obligation to CDS Clearing results in payment risk, a specific form of credit risk. Payment risk is a form of credit risk in securities settlement whereby a seller will deliver securities and not receive payment, or that a buyer will make payment and not receive the purchased securities. Payment risk is mitigated by delivery payment finality in CDSX, CDS Clearing's multilateral clearing and settlement system, as set out in the CDS Clearing Participant Rules.

In the settlement services offered by CDS Clearing, payment risk is transferred entirely from CDS Clearing to Participants who accept this risk pursuant to the contractual rules for the settlement services. This transfer of payment risk occurs primarily by means of Participants acting as extenders of credit to other Participants through lines of credit managed within the settlement system or, alternatively, by means of risk-sharing arrangements whereby groups of Participants cross-guarantee the payment obligations of other members of the group. Should a Participant be unable to meet its payment obligations to CDS Clearing, these surviving Participants are required to make the payment. Payment risk is mitigated on behalf of Participants through the enforcement of limits on the magnitude of payment obligations of each Participant and the requirement of each Participant to collateralize their payment obligation. Both of these mitigants are enforced in real time in the settlement system.

Through NYL and DTC Direct Link ("DDL"), credit risk exposures at CDS Clearing are created. During the course of each business day, settlement transactions by the NSCC/DTC can result in a net payment obligation from NSCC/DTC to CDS Clearing or the obligation of CDS Clearing to make a payment to NSCC/DTC. As a corollary result, CDS Clearing has a legal right to receive the funds from sponsored Participants in a debit position or has an obligation to pay the funds to sponsored Participants in a credit position.

The potential failure of a Participant to meet its payment obligation to CDS Clearing in the NYL or DDL services results in a payment risk. To mitigate the risk of default, CDS Clearing has in place default risk mitigation mechanisms to minimize losses to the surviving Participants as set out in the CDS Clearing Participant Rules. The process includes Participants posting collateral with CDS Clearing and NSCC/DTC (note 9).

The risk exposure of CDS Clearing in these central counterparty services is mitigated through a daily mark-to-market of each Participant's obligations as well as risk-based collateral requirements calculated daily. These mitigants are intended to cover the vast majority of market changes and are tested against actual price changes on a regular basis. This testing is supplemented with analysis of the effects of extreme market conditions on a collateral valuation and market risk measurements which are used to determine additional collateral requirements of Participants to a default fund established in 2015. Should the collateral of a defaulter in a central counterparty service be insufficient, either because the value of the collateral has declined or the loss to be covered by the collateral exceeded the collateral requirement, the surviving Participants in the service are required to cover any residual losses. Cash collateral is held by CDS Clearing at the Bank of Canada, with commercial banks with a minimum credit rating of A/R1-low or better, and NSCC/DTC and non-cash collateral pledged by Participants under Participant Rules is held by CDS Clearing (note 9).

CDS Clearing also holds $1.0 of its cash and cash equivalents and marketable securities to contribute pre-funded resources to its CNS default waterfall. This default fund of $1.0 would be accessed following the exhaustion of a suspended Participant's CNS participant fund and default fund contribution.

CDS Clearing may receive payment from securities issuers for entitlements, for example, maturity or interest payments, prior to the date of payment to the Participants holding those securities. In rare circumstances, due to the timing of receipt of these payments or due to market conditions, these funds may be held with a major Canadian chartered bank. As a result, CDS Clearing could be exposed to the credit risk associated with the potential failure of the bank.

CDCC

CDCC is exposed to risk of loss in the event that Clearing Members fail to satisfy any of the contractual obligations as stipulated within CDCC's rules.

CDCC is exposed to the credit risk of its Clearing Members since it acts as the central counterparty for all transactions carried out on MX's markets and on certain OTC markets which are serviced by CDCC. As such, in the event of a Clearing Member default, the obligations of those defaulting counterparties would become the responsibility of CDCC.

The first line of defence in CDCC's credit risk management process is the adoption of strict membership criteria which include both financial and regulatory requirements. In addition, CDCC performs on-going monitoring of the financial viability of its Clearing Members against the relevant criteria as a means of ensuring the on-going compliance of its Clearing Members. In the event that a Clearing Member fails to continue to satisfy any of its membership criteria, CDCC has the right through its rules, to impose various sanctions on such Clearing Members.

One of CDCC's principal risk management practices with regard to counterparty credit risk is the collection of risk-based margin deposits in the form of cash, equities, liquid government securities and escrow receipts. Should a Clearing Member fail to meet settlements and/or daily margin calls or otherwise not honour its obligations under open future contracts, option contracts, and REPO agreements, margin deposits would be seized and would then be available to apply against the potential losses incurred through the liquidation of the Clearing Member's positions.

CDCC's margining system is complemented by a Daily Capital Margin Monitoring (DCMM) process that evaluates the financial strength of a Clearing Member against its margin requirements. CDCC monitors the margin requirement of a Clearing Member as a percentage of its capital (net allowable assets). CDCC will make additional margin calls when the ratio of margin requirement/net allowable assets exceeds 100%. The additional margin is equal to the excess of the ratio over 100% and is meant to ensure that Clearing Member leverage in the clearing activities does not exceed the value of the firm. CDCC also has additional margin surcharges to manage the risk exposures associated with specific business related risks. These include: concentration charges for Clearing Members that are overly concentrated in certain positions, wrong-way risk charges for those Clearing Members holding positions which are highly correlated with their own credit risk profile, mismatched settlement surcharges which are meant to mitigate the risk of cherry-picking by a potential defaulter in the settlement process.

Global regulatory requirements for central-counterparties (CCPs), like CDCC, have highlighted the need for CCPs to have a component of their capital at risk in the default management process. CDCC holds $10.0 of its cash and cash equivalents and marketable securities to cover the potential loss incurred due to Clearing Member defaults. This $10.0 would be accessed in the event that a defaulting Clearing Members' margin and clearing fund deposits are insufficient to cover the loss incurred by CDCC. The $10.0 is allocated into two separate tranches. The first tranche of $5.0 is intended to cover the loss resulting from the first defaulting Clearing Member. If the loss incurred is greater than $5.0, and as such the first tranche is fully depleted, CDCC will fully replenish the first tranche using the second tranche of $5.0. This second tranche is in place to ensure there is $5.0 available in the event of an additional Clearing Member default.

CDCC's cash margin deposits and cash clearing fund deposits are held at the Bank of Canada or with commercial banks with a minimum credit rating of A/R1-low or better, thereby alleviating the credit risk CDCC would face with deposits held at commercial banks. CDCC's non-cash margin deposits and non-cash clearing fund deposits are pledged to CDCC under irrevocable agreements and are held by approved depositories (note 9). This collateral may be seized by CDCC in the event of default by a Clearing Member.

Shorcan

Shorcan is exposed to credit risk in the event that customers fail to settle on the contracted settlement date. This risk is limited by their status as agents, in that they do not purchase or sell securities for their own account. As agents, in the event of a failed trade, Shorcan has the right to withdraw its normal policy of anonymity and advise the two counterparties to settle directly.

(ii) Cash and cash equivalents and restricted cash and cash equivalents

The Company manages its exposure to credit risk on its cash and cash equivalents and restricted cash and cash equivalents by holding the majority of its cash and cash equivalents with major Canadian chartered banks or in Government of Canada and provincial treasury bills and US treasury bills.

(iii) Marketable securities

The Company manages its exposure to credit risk arising from investments in marketable securities by holding high-grade individual fixed income securities or term deposits with credit ratings of A/R1-low or better. In addition, when holding individual fixed income securities, the Company will limit its exposure to any non-government security. The investment policy of the Company will only allow excess cash to be invested in money market securities or fixed income securities;

however the majority of the portfolio is held within bank deposits, notes, Government of Canada and provincial treasury bills, and US treasury bills.

(iv) Trade receivables

The Company's exposure to credit risk resulting from uncollectable accounts is influenced by the individual characteristics of its customers, many of whom are banks and financial institutions. The Company invoices its customers on a regular basis and maintains a collections team to monitor customer accounts and minimize the amount of overdue receivables. There is no concentration of credit risk arising from trade receivables from a single customer. In addition, customers that fail to maintain their account in good standing risk loss of listing, trading, clearing, or data access privileges and other services.

(v) Total return swaps

The Company limits its exposure to counterparty credit risk on its total return swaps by contracting with major Canadian chartered banks.

(C) INVESTMENT RISK

In the clearing operations of its business, the Company manages both securities and cash collateral and uses custody banks for the latter. The investment management process governing the investable cash follows industry practice and is in line with the Company's regulatory obligations. However, as with all investment strategies, the risk of loss on participant assets remains a possibility. The potential for these adverse outcomes is accounted for in the contractual framework embedded in the CDS Rules, which ensure that if investment losses are realized, they are transferred to participants, thereby eliminating any possible impacts to the Company's financial position.

(D) MARKET RISK

Market risk is the risk of loss due to changes in market prices and rates, such as foreign exchange rates, interest rates, commodity prices and equity prices.

(i) Foreign currency risk

The Company is exposed to foreign currency risk on revenue and expenses where it invoices or procures in a foreign currency. It is also exposed to foreign currency risk on cash and cash equivalents, trade receivables and trade payables denominated in foreign currencies, principally in US dollars. As at December 31, 2021, cash and cash equivalents and trade receivables, net of current liabilities, include US$8.1, which are exposed to changes in the US-Canadian dollar exchange rate, £0.3, which are exposed to changes in the British Pound Sterling-Canadian dollar exchange rate, and less than €0.1, which are exposed to changes in the Euro-Canadian dollar exchange rate (2020 – US$10.0, £0.8 and less than €0.1). In addition, net assets related to Trayport and other foreign operations are denominated in US dollars, Euros ("EUR") and British Pound Sterling ("GBP"), and the effect of foreign exchange rate movements on the Company's share of these net assets is included in accumulated other comprehensive income in the consolidated balance sheet.

The Company does not currently employ currency hedging strategies with respect to its operating activities, and therefore significant moves in exchange rates, specifically a strengthening of the Canadian dollar against the US dollar could have an adverse effect on the value of the Company's net income or net assets in Canadian dollars.

Settlements in the clearing and settlement services offered by CDS Clearing occur in both Canadian and US dollars. Foreign exchange risk could be created if there is a default and the currency of the payment obligation is different from the currency of the collateral supporting that payment obligation. This risk is mitigated by discounting the collateral value of securities where these mismatches occur.

(ii) Interest rate risk

The Company is exposed to interest rate risk on its marketable securities, credit and liquidity facilities, debentures and Commercial Paper.

At December 31, 2021, the Company held $77.3 in marketable securities, all of which were held in treasury bills (2020 – $55.8, all of which were held in treasury bills).

The Company also has nil of Commercial Paper (note 11) outstanding at December 31, 2021.

(iii) Equity price risk

The Company is exposed to equity price risk arising from its share-based payments, as the Company's obligation under these arrangements are partly based on the price of the Company's shares. The Company has entered into TRSs as a partial economic hedge to the share appreciation rights of these share-based payments.

(iv) Other market price risk

The Company is exposed to market risk factors from the activities of CDCC, CDS Clearing, TSX, TSX Venture Exchange, and Shorcan, if a Clearing Member, Participant or client, as the case may be, fails to take or deliver either derivative products or securities on the contracted settlement date where the contracted price is less favourable than the current market price.

CDCC

CDCC is exposed to market risk through its CCP function in the event of a Clearing Member default as it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions.

The principal mitigation of the market risk exposure post default is the default management process. CDCC has developed detailed default management processes that would enable it to neutralize the market exposures through either its auction process or via open markets operations within prescribed time periods. Any losses from such operations would be set-off against the margin and clearing fund (if necessary) collateral that are pre-funded by all Clearing Members for these purposes.

CDS Clearing

CDS Clearing is exposed to market risk through its CCP function in the event of a Participant default as it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions.

The principal mitigation of the market risk exposure post default is the default management process. CDS Clearing has developed detailed default management processes that would enable it to neutralize the market exposures via open market operations within prescribed time periods. Any losses from such operations would be set-off against the collateral contributions of the defaulting participant to the participant fund and default fund for the CCP service.

Replacement cost risk exposure of CDS Clearing in these central counterparty services is mitigated through a daily mark-to-market of each participant's obligations as well as risk-based collateral requirements calculated daily. These mitigants are intended to cover the vast majority of market changes and are tested against actual price changes on a regular basis. This testing is supplemented with analysis of the effects of extreme market conditions on collateral valuation and market risk measurements which are used to determine additional collateral requirements of Participants to a default fund established in 2015. Should the collateral of a defaulter in a central counterparty service be insufficient, either because the value of the collateral has declined or the loss to be covered by the collateral exceeded the collateral requirement, the surviving participants in the service are required to cover any residual losses.

Settlements in the clearing and settlement services occur in both Canadian and US dollars. Foreign exchange risk is created when the currency of the payment obligation is different from the valuation currency of the collateral supporting that payment obligation. This risk is mitigated by discounting the collateral value of securities where these mismatches occur.

TSX and TSX Venture Exchange

The Company is exposed to market price risk on its sustaining services revenue, which is based on quoted market values of listed issuers as at December 31 of the previous year.

Shorcan

Shorcan's risk is limited by their status as an agent, in that they do not purchase or sell securities for their own account, the short period of time between trade date and settlement date, and the defaulting customer's liability for any difference between the amounts received upon sale of, and the amount paid to acquire, the securities.

(v) Market risk sensitivity summary

	Change in underlying factor	Impact on income before income taxes	Impact on equity
Foreign currency			
USD, EUR and GBP currency	+10%	$ 1.1	$ 90.4
USD, EUR and GBP currency	-10%	(1.1)	(90.4)
Interest rates			
Marketable securities	+1%	$ (0.1)	n/a
Marketable securities	-1%	(0.1)	n/a
Commercial Paper	+1%	n/a	n/a
Commercial Paper	-1%	n/a	n/a
Debentures	+1%	n/a	n/a
Debentures	-1%	n/a	n/a
Equity price			
PSUs, RSUs and DSUs	+25%	$ (13.8)	n/a
PSUs, RSUs and DSUs	-25%	12.3	n/a
TRS	+25%	7.3	n/a
TRS	-25%	(7.3)	n/a

(E) LIQUIDITY RISK

Liquidity risk is the risk of loss due to the inability of the Company to meet its, or of the Company's borrowers, counterparties, Clearing Members, or Participants to meet their obligations in a timely manner or at reasonable prices. The Company manages liquidity risk through the management of its cash and cash equivalents and marketable securities, all of which are held in short-term instruments, and its debentures, credit and liquidity facilities and Commercial Paper (note 11) and capital (note 12).

The contractual maturities of the Company's financial liabilities are as follows:

As at			**December 31, 2021**
	Less than 1 year	**Between 1 and 5 years**	**Greater than 5 years**
Participants' tax withholdings*	**$ 180.0**	$ —	$ —
Accrued interest payable	**5.7**	—	—
Other trade and other payables	**89.4**	—	—
Provisions	**0.4**	**1.2**	**0.5**
Lease liabilities	**9.3**	**34.1**	**54.2**
Balances of Participants and Clearing Members*	**57,113.5**	—	—
Total return swaps	**0.4**	—	—
Commercial Paper	—	—	—
Debentures	—	**549.1**	**448.0**

**The above financial liabilities are covered by assets that are restricted from use in the ordinary course of business.*

(F) COVID-19 RISK

The COVID-19 pandemic has created significant volatility, uncertainty and economic disruption, which may adversely affect our business, financial condition, liquidity, results of operations and long-term financial objectives. Economic, political and market conditions can impact the level of initial public offerings, secondary financings, market capitalization of our issuers, transfer agent and trustee services, trading volumes, energy data and network connectivity, client hosting revenue, and sales of market data across our markets.

The Company has witnessed high levels of volatility which, when coupled with prolonged negative economic conditions, can cause dramatic fluctuations in trading volumes, equity financings and demand for market data. This can lead to slower collections of accounts receivable as well as increased counterparty risk which, in turn, could adversely affect our business. Additionally, if the Company is required to suspend trading for a prolonged period of time or shorten trading hours, our business, operating results, long term financial objectives, cash flows, or financial condition could be materially adversely affected.

While key initiatives continue, some could be delayed or postponed indefinitely due to lack of client availability for effective engagement and business development. Although the Company continues to plan and engage with new and prospective clients, their level of readiness and commitment is outside of our control; therefore, revenues could be lower than anticipated.

NOTE 11 – DEBT, CREDIT AND LIQUIDITY FACILITIES

The Company is exposed to liquidity risk through its clearing operations and capital structure (note 10). To manage this risk, the Company has arranged various liquidity and credit facilities, Commercial Paper and debentures as a source of financing. If the Company is unable to meet its covenants under the trust indentures, the terms of the Commercial Paper program or the credit facilities, the Company may be required to seek potentially less favourable sources of financing.

(A) DEBT

The Company has the following debt outstanding as at December 31:

				2021	2020
	Interest rate	**Maturity date(s)**	**Principal/ Authorized amount**	**Carrying amount**	Carrying amount
Series B Debentures	4.461%	October 3, 2023	250.0	$ **249.8**	$ 249.8
Series D Debentures	2.997%	December 11, 2024	300.0	**299.3**	298.7
Series E Debentures	3.779%	June 5, 2028	200.0	**199.2**	199.0
Series F Debentures	2.016%	February 12, 2031	250.0	**248.8**	—
Debentures				**997.1**	747.5
Commercial Paper	n/a	n/a	400.0	—	160.0
Commercial Paper				—	160.0
TMX Group Limited credit facility	1 month B.A./ LIBOR + 107.5 bps	May 2, 2024	400.0	—	—
Credit facility				—	—
Total debt				**997.1**	907.5
Less: current portion of debt				—	(160.0)
Non-current debt				$ **997.1**	$ 747.5

(i) Debentures

The Company maintains debentures, which are direct, senior, unsecured and unsubordinated obligations of the Company and rank equally with all other senior unsecured and unsubordinated indebtedness. The debentures have received a rating of A (high) with Positive trend from DBRS Morningstar ("DBRS").

On February 12, 2021, the Company completed a Canadian private placement offering of $250.0 aggregate principal amount of senior unsecured debentures ("Series F Debentures") to accredited investors in Canada. The Series F

Debentures are direct senior unsecured and unsubordinated obligations of the Company and rank pari passu with all other senior unsecured and unsubordinated indebtedness of the Company. The Company incurred financing costs of $1.3 on the issuance of the Series F Debentures, and these costs are recognized in the carrying value of the Debentures in the Debt caption of the condensed consolidated balance sheet under non-current liabilities and amortized over the term of the debt.

The Company has the right, at its option, to redeem, in whole or in part, each of the Series B, Series D, Series E and Series F Debentures at any time prior to their respective maturities. The redemption price is equal to the greater of the applicable Canada Yield Price (as defined in the relevant Indenture) and 100% of the principal amount of the debentures being redeemed, together with accrued and unpaid interest to the date fixed for redemption. If redeemed on or after the date that is three months prior to the maturity date for the Series B, Series E and Series F, or two months prior to the maturity date for the Series D Debentures, the redemption price is equal to 100% of the aggregate principal amount outstanding on the series being redeemed, together with accrued and unpaid interest to the date fixed for redemption.

The debentures are carried at amortized cost and are measured using the effective interest rate method.

For the year ended December 31, 2021, the Company recognized interest expense on its Series B, Series D, Series E and Series F debentures of $11.2, $9.5, $7.8 and $4.6, respectively (2020 – $11.3, $9.1, $7.6 and nil, respectively).

(ii) Commercial paper

The Company has a commercial paper program to offer potential investors up to $400.0, or the US dollar equivalent (reduced from $500.0, or the US dollar equivalent, on April 28, 2021) of Commercial Paper to be issued in various maturities of no more than one year and bearing interest rates based on the prevailing market conditions at the time of issuance.

The Commercial Paper issued are unsecured obligations of TMX Group Limited and rank equally with all other senior unsecured obligations of the Company. The Commercial Paper has been assigned a rating of R-1 (low) with Positive trend by DBRS.

The Commercial Paper is carried at amortized cost and measured using the effective interest rate method.

During the year ended December 31, 2021, the Company issued Commercial Paper with a cumulative amount of $1,592.0 at interest rates ranging from 0.17% to 0.24% (2020 – $2,007.8 at interest rates ranging from 0.24% to 2.00%). During the same period, the Company repaid Commercial Paper with a cumulative amount of $1,752.0 at interest rates ranging from 0.17% to 0.25% (2020 – $2,087.8 at interest rates ranging from 0.25% to 2.00%).

(iii) TMX Group Limited credit facility

The Company has entered into a credit agreement (the “TMX Group Limited credit facility”) with a syndicate of lenders to provide 100% backstop to the commercial paper program as well as for general corporate purposes. The credit agreement is to mitigate the Company's exposure to specific liquidity risk should it be unable to borrow under a new Commercial Paper issuance in order to pay for Commercial Paper that is coming due because of a lack of liquidity or demand for the Company's Commercial Paper in the market.

The amount available to be drawn under the TMX Group Limited credit facility is limited to $400.0 (decreased from $500.0 on April 28, 2021) less the aggregate amount of: (i) Commercial Paper outstanding (December 31, 2021 – nil); and (ii) inter-company notes payable to CDS Clearing, CDCC, CDS Limited and Shorcan Brokers Limited (December 31, 2021 – $58.7). The facility expires on May 2, 2024.

MX has an outstanding letter of guarantee for $0.4 issued against the TMX Group Limited credit facility. This letter of guarantee has been issued as a guarantee to the trustee under the MX supplementary pension plan in respect of accrued future employee benefits (note 24).

(B) OTHER CREDIT AND LIQUIDITY FACILITIES

The Company has the following other credit and liquidity facilities drawn and outstanding at December 31:

	Interest rate†	Maturity date(s)	Authorized	2021 Carrying amount	2020 Carrying amount
CDS Limited operating demand loan	–	n/a	5.0	—	—
CDS Clearing unsecured overdraft	–	n/a	5.0	—	—
CDS Clearing operating demand loan	–	n/a	15.0	—	—
CDS Clearing secured standby liquidity facility	–	March 22, 2022	2,000.0	—	—
CDS Clearing overnight loan facility	–	n/a	US$5.5	—	—
CDS Clearing secured standby liquidity facility	–	March 22, 2022	US$720.0	—	—
CDCC syndicated revolving standby liquidity facility	–	February 25, 2022	100.0	**2.0**	4.3
CDCC daylight liquidity facilities	–	n/a	975.0	—	—
CDCC syndicated REPO facility	–	February 25, 2022	27,012.0	—	—
Shorcan overdraft facility	–	n/a	50.0	—	—
Total credit and liquidity facilities				**$ 2.0**	$ 4.3

†The interest rate charged on borrowings under the credit and liquidity facilities vary as the actual rate will be based on the prevailing market rates at the time of draw.

(i) CDS facilities

CDS maintains unsecured operating demand loans totaling $5.0 to support short-term operating requirements. To support processing and settlement activities of Participants, an unsecured overdraft facility of $5.0, demand loan of $15.0 and an overnight facility of US$5.5 are available. The borrowing rates for these facilities, if drawn, are the Canadian prime or the US base rate, depending on the currency drawn.

CDS Clearing maintains a secured standby liquidity facility of US$720.0, or Canadian dollar equivalent, that can be drawn in either United States or Canadian currency. On March 23, 2021, CDS Clearing extended the maturity date to March 22, 2022. The facility is available to support processing and settlement activities in the event of a Participant default with the New York Link Service and The Depository Trust Company Direct Link Service. The facility will allow the Company to increase the amount available by an additional US$600, or Canadian equivalent, with approval of the lenders. Borrowings under the secured facility are obtained by pledging or providing collateral pledged by Participants primarily in the form of debt instruments issued or guaranteed by federal, provincial and/or municipal governments in Canada, or US treasury instruments and equity instruments. Depending upon the currency drawn, the borrowing rate for the secured standby liquidity facility is the US base rate plus 150 bps or the Canadian prime rate plus 150 bps.

CDS Clearing also has a secured standby liquidity facility of $2,000, or US equivalent, that can be drawn in either Canadian or US currency. On March 23, 2021, CDS Clearing extended the maturity date to March 22, 2022. This arrangement is available to support settlement activities in the event of a Participant default with CDS Clearing's Continuous Net Settlement service. The facility will allow the Company to increase the amount available by an additional $500, or US equivalent, with approval of the lenders. Borrowings under the secured facility are obtained by pledging or providing collateral pledged by Participants primarily in the form of debt and equity instruments. Depending upon the currency drawn, the borrowing rate for the secured standby liquidity facility is the Canadian prime rate plus 150 bps or the US base rate plus 150 bps.

In addition, CDS has signed agreements that would allow the Bank of Canada to provide emergency last-resort liquidity to CDS at the discretion of the Bank of Canada. This liquidity facility is intended to provide end of day liquidity for payment obligations arising from CDSX, and only in the event that CDS Clearing is unable to access liquidity from its standby liquidity facility or in the event that the liquidity under such facilities is insufficient. Use of this facility would be on a fully collateralized basis.

(ii) CDCC facilities

CDCC maintains daylight liquidity facilities for a total of $975.0 to provide liquidity on the basis of collateral in the form of securities that have been received by, or pledged to, CDCC. The daylight liquidity facilities must be cleared to zero at the end of each day.

CDCC maintains a $27,012.0 REPO uncommitted facility (December 31, 2020 - $27,012.0) that is in place to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero. On February 26, 2021, CDCC extended this facility to February 25, 2022. The facility would provide liquidity in exchange for securities that have been received by, or pledged to, CDCC.

CDCC also maintains a $100.0 syndicated revolving standby liquidity facility (December 31, 2020 - $320.0) to provide end of day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero. Advances under the facility are secured by collateral in the form of securities that have been received by, or pledged to, CDCC. The borrowing rate on this facility is prime rate less 1.75%. On February 26, 2021, CDCC extended this facility to February 25, 2022 and on June 4, 2021, CDCC reduced this facility from $320.0 to $100.0.

As at December 31, 2021, CDCC had drawn $2.0 to facilitate a failed REPO settlement. The amount is fully collateralized by liquid securities included in cash and cash equivalents and was fully repaid subsequent to the reporting date.

In addition, CDCC has signed an agreement that would allow the Bank of Canada to provide emergency last-resort liquidity to CDCC at the discretion of the Bank of Canada. This liquidity facility is intended to provide end of day liquidity only in the event that CDCC is unable to access liquidity from the revolving standby liquidity facility and the syndicated REPO facility or in the event that the liquidity under such facilities is insufficient. Use of this facility would be on a fully collateralized basis.

(iii) Shorcan facility

Shorcan maintains an overdraft facility with a major chartered bank to provide end of day liquidity to cover any shortfalls due to timing of payments and receipts associated with the brokerage of trades. Use of this facility is secured by collateral in the form of securities.

(iv) TMX Group Limited Support Agreement

In compliance with the Principles for Financial Market Infrastructures and additional Canadian regulatory and oversight guidance, CDS Clearing and CDCC each have adopted a recovery plan, to be applied in the event that the entity is unable to provide defined critical operations and services as a going concern. These recovery plans were filed with their respective Canadian regulators. In connection with the recovery plans, and if certain funding conditions are met, TMX Group Limited is to provide certain limited financial support to CDS Clearing and CDCC, if necessary, in the context of a recovery.

(C) RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Company's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Company's consolidated statement of cash flows from financing activities.

	Debentures	Commercial Paper	CDCC syndicated revolving standby liquid facility	Lease liabilities	Total
Balance at January 1, 2020	$ 747.1	$ 239.6	$ 8.2	$ 103.7	$ 1,098.6
Financing cash flows	—	(79.6)	(3.9)	(11.4)	(94.9)
Other (non-cash)	0.4	—	—	2.0	2.4
Balance at December 31, 2020	$ 747.5	$ 160.0	$ 4.3	$ 94.3	$ 1,006.1
Financing cash flows	248.7	(160.0)	(2.3)	(11.5)	**74.9**
Other (non-cash)	0.9	—	—	14.8	**15.7**
Balance at December 31, 2021	$ 997.1	$ —	$ 2.0	$ 97.6	**$ 1,096.7**

NOTE 12 – CAPITAL MAINTENANCE

The Company's primary objectives in managing capital, which it defines as including its cash and cash equivalents, marketable securities, share capital, debentures, commercial paper, and various credit facilities, include:

- Maintaining sufficient capital for operations to ensure market confidence and to meet regulatory requirements and various facility requirements. Currently, the Company targets to retain a minimum of $205.0 in cash, cash equivalents and marketable securities. This amount is subject to change;
- Maintaining a credit rating in a range consistent with the Company's current A (high) and R1-low credit ratings from DBRS;
- Using excess cash to invest in and continue to grow the business;
- Returning capital to shareholders through methods such as dividends paid to shareholders and purchasing shares for cancellation pursuant to normal course issuer bids; and
- Reducing the debt levels to be below the total leverage ratios as discussed in (a) below, which decrease over time.

The Company aims to achieve the above objectives while managing its capital subject to capital maintenance requirements imposed on the Company and certain subsidiaries as follows:

a. In respect of the TMX Group Limited credit facility (note 11) that require the Company to maintain:
   i. an interest coverage ratio of more than 4.0:1;
   ii. a total leverage ratio of not more than 3.50:1.

b. In respect of each of TSX and Alpha Exchange Inc., to maintain the following requirements, on both a consolidated and non-consolidated basis, as set out in the amended and restated recognition order issued by the Ontario Securities Commission ("OSC") effective September 2020:
   i. maintain sufficient financial resources for the proper performance of its functions and to meet its responsibilities; and
   ii. calculate on a monthly basis:
      - a current ratio;
      - a debt to cash flow ratio; and
      - a financial leverage ratio.

c. In respect of TSX Venture Exchange Inc., as required by certain provincial securities commissions, to maintain sufficient financial resources to perform its functions.

d. In respect of MX, to maintain the following financial ratios as set out in the recognition order issued by the AMF:
   i. a working capital ratio of more than 1.5:1;
   ii. a cash flow to total debt outstanding ratio of more than 20%; and
   iii. a financial leverage ratio of less than 4.0.

e. In respect of CDCC, to maintain certain amounts, as follows:
   i. maintain sufficient financial resources as required by the OSC and AMF;
   ii. $5.0 cash and cash equivalents or marketable securities as part of the Clearing Member default recovery process plus an additional $5.0 in the event that the initial $5.0 is fully utilized during a default;
   iii. sufficient cash, cash equivalents and marketable securities to cover 12 months of operating expenses, excluding amortization and depreciation; and
   iv. $30.0 total shareholder's equity.

f. In respect of CDS and CDS Clearing, as required by the OSC and the AMF to maintain certain financial ratios as defined in the OSC recognition order, as follows:
   i. a debt to cash flow ratio of less than or equal to 4:1; and
   ii. a financial leverage ratio of less than or equal to 4:1.

   In addition, the OSC requires CDS and CDS Clearing to maintain working capital to cover 6 months of operating expenses (excluding, in the case of CDS, the amount of shared services fees charged to CDS Clearing).

   CDS is required to dedicate a portion of its own resources in the CNS default waterfall for the CNS function. CDS maintains $1.0 in cash and cash equivalents or marketable securities to cover potential losses incurred as a result of a Participant default.

g. In respect of Shorcan:
   i. by IIROC which requires Shorcan to maintain a minimum level of shareholders' equity of $0.5;
   ii. by the National Futures Association which requires Shorcan to maintain a minimum level of net capital; and
   iii. by applicable Canadian securities commissions, which require Shorcan to maintain a minimum level of excess working capital.

h. In respect of TSX Trust:
   i. as required by the Office of the Superintendent of Financial Institutions, to maintain the following minimum capital ratios:
      1. common equity tier 1 capital ratio of 7%;
      2. tier 1 capital ratio of 8.5%; and
      3. total capital ratio of 10.5%.
   ii. as required by IIROC, to maintain in excess of $100.0 of paid up capital and surplus on the last audited balance sheet for the acceptable institution designation.

As at December 31, 2021 and 2020, the Company complied with each of the externally imposed capital requirements in effect at the applicable period-end.

NOTE 13 – FINANCIAL INSTRUMENTS

Financial assets are recognized on the trade date at which the Company becomes a party to the contractual provisions of the instrument. Financial assets are generally derecognized when the contractual rights to the cash flows from the assets expire, or when the Company transfers the rights to receive the contractual cash flows on the financial assets to another party without retaining substantially all the risks and rewards of ownership of the financial assets.

Financial liabilities are initially recognized on the trade date at which the Company becomes a party to the contractual provisions of the instrument. The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled or expired. Financial liabilities are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition these financial liabilities are measured at amortized cost using the effective interest method. Financial assets and liabilities are offset and the net amount presented in the consolidated balance sheet only when the Company has a current legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Derivatives are recognized initially at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

The Company holds total return swaps which, while providing a partial economic hedge against its share price exposure on its cash-settled share-based compensation plans (note 23), are not designated as hedges for accounting purposes. As such, these derivatives are recognized at fair value both initially and subsequently, with changes in the fair value recognized in the consolidated income statement.

(A) CLASSIFICATION AND MEASUREMENT

Financial assets and liabilities are classified as fair value through profit and loss ("FVTPL"), amortized cost, or fair value through other comprehensive income ("FVTOCI"). The Company has exercised judgement in its assessment of the business model within which the assets are held and in its assessment of whether the contractual terms of the financial assets are solely payments of principal and interest on the principal amounts outstanding to determine the classification of financial assets.

The Company classifies its non-derivative financial assets in the following categories, depending on the purpose for which they were acquired:

- Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognized in profit or loss. The net gain or loss recognized in profit or loss includes any dividend or interest earned on the financial asset and is presented as finance income or cost in the consolidated income statement.
- Financial assets carried at amortized cost. Amortized cost is the amount at which the financial asset is measured at initial recognition minus the principal repayments, adjusted for the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. On the other

hand, the gross carrying amount of a financial asset is the amortized cost of a financial asset before adjusting for any loss allowance.

The classification of the Company's financial instruments, along with their carrying amounts and fair values are as follows:

	December 31, 2021		December 31, 2020	
	Carrying amount	**Fair value**	Carrying amount	Fair value
Assets at fair value through profit or loss				
Marketable securities	**$ 77.3**	**$ 77.3**	$ 55.8	$ 55.8
	77.3	**77.3**	55.8	55.8
Assets at amortized cost				
Cash and cash equivalents	**264.3**	**264.3**	222.1	222.1
Restricted cash and cash equivalents	**180.0**	**180.0**	153.3	153.3
Trade and other receivables	**132.6**	**132.6**	108.0	108.0
Promissory note	**—**	**—**	4.7	4.7
Clearing Members cash collateral	**5,537.2**	**5,537.2**	6,002.0	6,002.0
Balances of Clearing Members	**40,407.5**	**40,407.5**	19,050.3	19,050.3
Balances of Participants	**11,168.8**	**11,168.8**	5,218.1	5,218.1
	57,690.4	**57,690.4**	30,758.5	30,758.5
Liabilities at fair value through profit or loss				
Total return swaps	**(0.4)**	**(0.4)**	(2.4)	(2.4)
	(0.4)	**(0.4)**	(2.4)	(2.4)
Liabilities at amortized cost				
Other trade and other payables	**(89.4)**	**(89.4)**	(71.8)	(71.8)
Accrued interest payable	**(5.7)**	**(5.7)**	(3.8)	(3.8)
Participants' tax withholdings	**(180.0)**	**(180.0)**	(153.3)	(153.3)
Clearing Members cash collateral	**(5,537.2)**	**(5,537.2)**	(6,002.0)	(6,002.0)
Balances of Clearing Members	**(40,407.5)**	**(40,407.5)**	(19,050.3)	(19,050.3)
Balances of Participants	**(11,168.8)**	**(11,168.8)**	(5,218.1)	(5,218.1)
Credit and liquidity facilities drawn	**(2.0)**	**(2.0)**	(4.3)	(4.3)
Commercial Paper	**—**	**—**	(160.0)	(160.0)
Debentures	**(997.1)**	**(1,033.1)**	(747.5)	(830.7)
	$ (58,387.7)	**$ (58,423.7)**	$ (31,411.1)	$ (31,494.3)

The carrying amount of the Company's financial instruments approximate their fair values at each reporting date, with the exception of the debentures. The fair values of the debentures were obtained using Level 2 observable market prices as inputs.

(B) FAIR VALUE MEASUREMENT

The categories within the fair value hierarchy of the Company's financial instruments carried at fair value are as follows:

As at				**December 31, 2021**
Asset/(Liability)	**Level 1**	**Level 2**	**Level 3**	**Total**
Marketable securities	**$ 77.3**	**$ —**	**$ —**	**$ 77.3**
Total return swaps	**—**	**(0.4)**	**—**	**(0.4)**

As at				December 31, 2020
Asset/(Liability)	Level 1	Level 2	Level 3	Total
Marketable securities	$ 55.8	$ —	$ —	$ 55.8
Total return swaps	—	(2.4)	—	(2.4)

There were no transfers during the periods between any of the levels.

NOTE 14 – CASH AND CASH EQUIVALENTS, RESTRICTED CASH AND CASH EQUIVALENTS AND MARKETABLE SECURITIES

(A) CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AND CASH EQUIVALENTS

Cash and cash equivalents, and restricted cash and cash equivalents are comprised of:

As at	December 31, 2021	December 31, 2020
Cash	$ 176.4	$ 117.7
Term and other deposits	17.6	28.6
Treasury bills	67.7	72.7
Regulatory surplus	2.6	3.1
Cash and cash equivalents	**$ 264.3**	$ 222.1
Restricted cash and cash equivalents – CDS Clearing	180.0	153.3
Restricted cash and cash equivalents	**$ 180.0**	$ 153.3

Cash and cash equivalents consist of cash and highly liquid investments having an original maturity of three months or less and also include restricted cash. MX operates a separate regulatory division, responsible for the approval of participants and market regulation, which operates on a cost recovery basis. The surplus of this regulatory division has an equivalent and off-setting amount included in trade and other payables.

Restricted cash and cash equivalents contains tax withheld by CDS Clearing on entitlement payments made by CDS Clearing on behalf of CDS Clearing Participants. The restricted cash and cash equivalents related to this withheld tax is ultimately under the control of CDS Clearing; however, the amount is payable to various taxation authorities within a relatively short period of time and so is restricted from use in normal operations. An equivalent and off-setting amount is included in the consolidated balance sheet as a current liability under the caption Participants' tax withholdings.

(B) MARKETABLE SECURITIES

Marketable securities are comprised of:

As at	December 31, 2021	December 31, 2020
Treasury bills	$ 77.3	$ 55.8
Marketable securities	**$ 77.3**	$ 55.8

The Company has designated its marketable securities as fair value through profit and loss, with changes in fair value being recorded within finance income in the consolidated income statement in the period in which they occur. Fair values have been determined based on quoted market prices or are based on observable market information.

NOTE 15 – TRADE AND OTHER RECEIVABLES

Trade and other receivables are comprised of:

As at	December 31, 2021	December 31, 2020
Trade receivables, gross	$ 102.8	$ 100.2
Less: Allowance for impairment	(3.2)	(2.7)
Trade receivables, net	99.6	97.5
Other receivables	33.0	10.5
Trade and other receivables	**$ 132.6**	$ 108.0

Loss allowances for trade and other receivables are measured at an amount equal to lifetime expected credit losses. The expected credit losses on trade and other receivables are calculated using historical credit loss experience taking into account current observable data at the reporting date to reflect the effects of any relevant current and forecasts of future conditions.

Trade receivables generally have terms of 30 days. Loss allowances for trade receivables are measured at an amount equal to lifetime expected credit losses ("ECL"). Trade receivables that are more than three months past due are considered to be impaired and the impairment is the lifetime ECL. Allowances for ECL are recorded within selling, general and administration costs in the consolidated income statement. Other specific trade receivables are also provided against as considered necessary.

The aging of the trade receivables was as follows:

As at		**December 31, 2021**			December 31, 2020		
		Gross		**Allowance**		Gross	Allowance
Not past due	**$**	**72.9**	**$**	—	$	69.4 $	—
Past due 1-90 days		**24.3**		—		26.0	—
More than 90 days past due		**5.6**		**3.2**		4.8	2.7
Trade receivables	**$**	**102.8**	**$**	**3.2**	$	100.2 $	2.7

The movement in the Company's allowance for impairment is as follows:

		December 31, 2021		December 31, 2020
Balance at January 1	**$**	**2.7**	$	2.8
Allowance recognized in the year, net of allowance released		**1.6**		1.4
Receivables written off as uncollectible		**(1.1)**		(1.5)
Balance at December 31	**$**	**3.2**	$	2.7

No allowance for impairment is considered necessary for other receivables.

NOTE 16 – GOODWILL AND INTANGIBLE ASSETS

(A) GOODWILL AND INDEFINITE LIFE INTANGIBLE ASSETS

Goodwill is recognized at cost on acquisition less any subsequent impairment in value. Intangible assets such as trade names, derivative products, regulatory designations and structured products are considered to have indefinite lives as management believes that there is no foreseeable limit to the period over which these assets are expected to generate net cash flows.

A summary of the Company's goodwill and indefinite life intangible assets is as follows:

		Goodwill		**Trade names**		**Derivative products**		**Regulatory designations**		**Total**
Balance at January 1, 2020	$	1,649.7	$	283.4	$	632.0	$	1,407.3	$	3,972.4
Adjustment for VisoTech		(4.5)		—		—		—		(4.5)
Effect of movements in exchange rates		8.5		0.4		—		—		8.9
Balance at December 31, 2020		1,653.7		283.8		632.0		1,407.3		3,976.8
Acquisition of AST Canada (note 3)		**45.8**		—		—		—		**45.8**
Acquisition of TradeSignal (note 3)		**9.3**		—		—		—		**9.3**
Effect of movements in exchange rates		**(13.0)**		**(0.7)**		—		—		**(13.7)**
Balance at December 31, 2021	**$**	**1,695.8**	**$**	**283.1**	**$**	**632.0**	**$**	**1,407.3**	**$**	**4,018.2**

The Company measures goodwill arising on a business combination as the fair value of the consideration transferred less the fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. The Company elects on a transaction by transaction basis whether to measure non-controlling interests at fair value or at their proportionate share of the recognized amount of the identifiable net assets acquired, at the acquisition date. Transaction costs, other than those associated with the issue of debt or equity securities as consideration, that the Company incurs in connection with a business combination are expensed as incurred.

(B) DEFINITE LIFE INTANGIBLE ASSETS

Definite life intangible assets are recognized at cost less accumulated amortization, where applicable, and any impairment in value. Cost includes any expenditure that is directly attributable to the acquisition of the asset. The cost of internally developed assets includes the cost of materials and direct labour, and any other costs directly attributable to bringing the assets to a working condition for their intended use.

Costs incurred in research activities, undertaken with the prospect of gaining new technical knowledge, are recognized in the consolidated income statement as incurred. Costs incurred in development activities are capitalized when all of the following criteria are met:

- It is technically feasible to complete the work such that the asset will be available for use or sale,
- The Company intends to complete the asset for use or sale,

- The Company will be able to use the asset once completed,
- The asset will be useful and is expected to generate future economic benefits for the Company,
- The Company has adequate resources available to complete the development of and to use the asset, and
- The Company is able to reliably measure the costs attributable to the asset during development.

Definite life intangible assets are amortized from the date of acquisition or, for internally developed intangible assets, from the time the asset is available for use. Amortization is recognized in the consolidated income statement on a straight-line basis over the estimated useful life of the asset. Residual values and the useful lives of the assets are reviewed at each year end, and revised as necessary.

Amortization is provided over the following useful lives of definite life intangible assets:

Asset	**Basis**	**Rate**
Customer relationships	Straight-line	17 – 34 years
Technology	Straight-line	1 – 15 years

A summary of the Company's definite life intangible assets is as follows:

	Technology	**Customer relationships**	**Open interest**	**Total**
Cost:				
Balance at January 1, 2020	$ 195.9	$ 1,204.9	$ 2.0	$ 1,402.8
Additions through general operations	53.1	—	—	53.1
Adjustment for VisoTech	1.9	3.9	—	5.8
Other adjustments	(1.1)	—	—	(1.1)
Effect of movements in exchange rates	0.7	3.8	—	4.5
Balance at December 31, 2020	250.5	1,212.6	2.0	1,465.1
Additions through general operations	**43.7**	**—**	**—**	**43.7**
Acquisition of AST Canada (note 3)	**15.7**	**79.0**	**—**	**94.7**
Other adjustments	**6.6**	**(2.3)**	**—**	**4.3**
Effect of movements in exchange rates	**(1.4)**	**(6.3)**	**—**	**(7.7)**
Balance at December 31, 2021	**$ 315.1**	**$ 1,283.0**	**$ 2.0**	**$ 1,600.1**
Accumulated amortization:				
Balance at January 1, 2020	$ 76.6	$ 255.4	$ 2.0	$ 334.0
Charge for the year	16.6	44.2	—	60.8
Adjustments	(1.3)	—	—	(1.3)
Effect of movements in exchange rates	0.3	0.4	—	0.7
Balance at December 31, 2020	92.2	300.0	2.0	394.2
Charge for the year	**17.6**	**45.8**	**—**	**63.4**
Adjustments	**6.6**	**(1.2)**	**—**	**5.4**
Effect of movements in exchange rates	**(0.7)**	**(0.9)**	**—**	**(1.6)**
Balance at December 31, 2021	**$ 115.7**	**$ 343.7**	**$ 2.0**	**$ 461.4**
Net book values:				
At December 31, 2020	$ 158.3	$ 912.6	$ —	$ 1,070.9
At December 31, 2021	**$ 199.4**	**$ 939.3**	**$ —**	**$ 1,138.7**

(C) IMPAIRMENT OF ASSETS

The carrying amounts of the Company's non-financial assets, other than deferred income tax assets and employee future benefit assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives, or that are not yet available for use, are tested for impairment at least annually even if there is no indication of impairment, and the recoverable amount is estimated each year at the same time.

The recoverable amount of an asset is the greater of its value-in-use and its fair value less costs of disposal. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing,

assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit", or "CGU"). For the purposes of goodwill impairment testing, goodwill acquired in a business combination is allocated to the CGU, or the group of CGUs, that is expected to benefit from the synergies of the combination and reflects the lowest level at which that goodwill is monitored for internal reporting purposes.

An impairment loss is recognized if the carrying amount of an asset, or its CGU, exceeds its estimated recoverable amount, which is the higher of the asset's fair value less costs of disposal and its value-in-use. Impairment losses recognized in respect of a CGU are allocated first to reduce the carrying amount of any goodwill allocated to the CGUs, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis. Impairment losses are recognized in the consolidated income statement.

An impairment loss in respect of goodwill cannot be reversed. In respect of other non-financial assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

The Company recognized no impairment in 2020 and 2021.

At December 31, the carrying values of goodwill and indefinite life intangible assets allocated to each CGU, after the impairment charges described above, are as follows:

As at		**December 31, 2021**		December 31, 2020
	Goodwill	**Indefinite life intangibles**	Goodwill	Indefinite life intangibles
Listings	**$ 13.3**	**$ 1,197.9**	$ 13.3	$ 1,227.9
TMX Datalinx	**707.7**	**79.6**	707.7	82.9
Trayport	**628.2**	**39.0**	631.9	39.7
Equities Trading	**5.1**	**316.8**	5.1	283.3
MX/CDCC	**159.4**	**663.5**	159.4	663.7
CDS	**89.5**	**22.0**	89.5	22.0
TSX Trust	**90.8**	**2.0**	45.0	2.0
Shorcan Brokers	**1.8**	**1.6**	1.8	1.6
	$ 1,695.8	**$ 2,322.4**	$ 1,653.7	$ 2,323.1

The recoverable amounts of the above CGUs were determined based on value-in-use calculations, using management's discounted cash flow projections over periods of 5 to 8 years, depending on the CGU, along with a terminal value. The terminal value is the value attributed to the CGUs' operations beyond the projected time period. The terminal value for the CGUs is determined using estimated long-term growth rates of 2.0% for all significant CGUs, except for MX/CDCC and Trayport, which used 4.5%. The estimated long-term growth rate is based on the Company's estimates of expected future operating results, future business plans, economic conditions and a general outlook for the industry in which the CGU operates. In calculating the recoverable amount of these CGUs, a pre-tax discount rate is used. The pre-tax discount rate applied was 9.8% to 12.8%, which was set considering the weighted average cost of capital of the Company and certain risk premiums, based on management's past experience.

These assumptions are subjective judgements based on the Company's experience, knowledge of operations and knowledge of the economic environment in which it operates. If future cash flow projections, long-term growth rates or pre-tax discount rates are different to those used, it is possible that the outcome of future impairment tests could result in a different outcome with a CGU's goodwill and/or intangible assets being impaired.

NOTE 17 – INVESTMENTS IN EQUITY ACCOUNTED INVESTEES

Investments in equity accounted investees are comprised of:

As at	December 31, 2021	December 31, 2020
Investment in BOX Holdings	$ 40.3	$ 21.9
Other	5.5	5.4
Investments in equity accounted investees	$ 45.8	$ 27.3

For the year ended December 31, 2021, the Company recognized $24.2 from its share of income from equity-accounted investees (2020 – $5.7). Also for the year ended December 31, 2021, the Company earned nil from services rendered to equity accounted investees (2020 – $1.4).

BOX HOLDINGS

As of December 31, 2021, the Company holds an economic and voting interest of 42.62% and 45.5%, respectively, in BOX Holdings (2020 - 42.62% and 45.5%). The investment in BOX Holdings is accounted for using the equity method.

Summary financial information for BOX Holdings is as follows:

As at	December 31, 2021	December 31, 2020
Current assets	$ 101.0	$ 38.8
Non-current assets	13.1	5.9
Current liabilities	(25.3)	(4.0)
Non-current liabilities	(5.9)	(12.3)
Net assets (100%)	$ 82.9	$ 28.4

	For the year ended December 31, 2021	For the year ended December 31, 2020
Revenue	$ 102.7	$ 50.9
Net income and comprehensive income (100%)	56.6	13.0
Share of income and comprehensive income (42.62%)	$ 24.1	$ 5.6

For the year ended December 31, 2021, the Company recognized $24.1 from its share of income in the consolidated income statements and a gain of less than $0.1 from translation of the foreign operation in the consolidated statements of comprehensive income (for the year ended December 31, 2020 – income of $5.6 and loss of $0.4, respectively).

Subsequent event

In February 2021, BOX Holdings commenced a unit buy-back with certain members that was concluded on January 3, 2022, which resulted in the Company’s economic and voting interests increasing to 47.89% and 51.43%, respectively. As a result, effective January 3, 2022, the Company obtained control over BOX Holdings and commenced consolidating the entity. The transaction shall be accounted for as a business combination in accordance with IFRS 3, *Business Combinations*. Thus, upon obtaining control, the Company remeasured its previously held interest, resulting in a gain currently estimated to be approximately $180.2, which will be recognized in our first quarter 2022 results.

The Company estimates the fair value of its ownership interest in BOX Holdings (i.e. the purchase consideration) using the income approach. The income approach is a valuation technique that calculates the fair value of a business based on the present value of future expected cash flows. This valuation involves significant subjectivity and estimation uncertainty, including assumptions related to the future revenues of the acquired business and the discount rate.

The following table summarizes the estimated fair values of the assets and liabilities acquired. The Company will finalize the measurement of the values below as it obtains the information necessary to complete the measurement process. Any changes resulting from facts and circumstances that existed as of the date of acquisition of control will result in retrospective adjustments to the provisional amounts below, recognized at the acquisition dates.

Consideration:		
Fair value of previously held interest in BOX Holdings	$	**207.5**
Non-controlling interest, based on the proportionate interest in the recognized amounts of BOX Holdings' identifiable net assets		**178.0**
Total consideration	**$**	**385.5**
Identifiable assets acquired and liabilities assumed:		
Cash and cash equivalents	$	**77.4**
Trade and other receivables		**12.7**
Intangible assets		**317.4**
Goodwill		**43.9**
Deferred tax liabilities		**(43.5)**
Other assets and liabilities, net		**(22.4)**
Fair value of net assets acquired	**$**	**385.5**

Intangible assets comprise customer relationships of $305.9, trade name of $6.4, and technology of $5.1.

The goodwill recorded on acquisition is attributable to the expected growth in the customer base. None of the goodwill recognized is deductible for income tax purposes.

NOTE 18 – TRADE AND OTHER PAYABLES

Trade and other payables are comprised of:

As at		**December 31, 2021**		December 31, 2020
Trade payables and accrued expenses	**$**	**68.2**	$	51.6
Sales taxes payable		**3.9**		4.6
Employee and director costs payable		**70.3**		68.0
Accrued interest payable		**5.7**		3.8
Regulatory surplus		**2.6**		3.1
Other		**2.1**		1.3
Trade and other payables	**$**	**152.8**	$	132.4

The fair value of trade and other payables is approximately equal to their carrying amount given their short term until settlement.

Short-term payables with no stated interest rate are measured at the original transaction amounts where the effect of discounting is immaterial. Short-term employee benefit obligations, such as wages, salaries and annual vacation entitlements, are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the Company’s annual short-term incentive plan if a present legal or constructive obligation to pay an amount exists as a result of past service provided by the employee, and the obligation can be estimated reliably.

NOTE 19 – DEFERRED REVENUE

Deferred revenue is comprised of:

As at	December 31, 2021	December 31, 2020
Listings	$ 15.9	$ 10.8
Trayport	5.8	4.7
Other	4.3	2.5
Current deferred revenue	**$ 26.0**	$ 18.0
Trayport	$ 1.2	—
Other	1.5	0.4
Non-current deferred revenue	**$ 2.7**	$ 0.4

Listings deferred revenue is mainly comprised of initial and additional listings fees for TSX Venture Exchange, which are paid in advance for the services being provided, and initial listings fees for TSX. Initial listings are deferred over a 12-month period from the date of listing, while additional listings are recognized when the additional listing occurs.

Trayport deferred revenue includes quarterly, annual, and multi-year subscriptions billed in advance.

Other includes deferred revenue related to Other issuer services (TSX Trust), Derivatives trading and clearing (MX and CDCC), and CDS.

NOTE 20 – PROVISIONS AND CONTINGENCIES

(A) PROVISIONS

A provision has been recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as a finance cost.

A summary of the Company's provisions is as follows:

	Decommissioning liabilities	Commodity tax	Other	Total
Balance at January 1, 2020	$ 8.2	$ 4.7	$ 3.2	$ 16.1
Provisions recognized during the period	0.2	(0.1)	13.4	13.5
Provisions used or reversed during the period	(0.4)	(4.0)	(16.1)	(20.5)
Balance at December 31, 2020	$ 8.0	$ 0.6	$ 0.5	$ 9.1
Current	$ —	$ 0.6	$ 0.5	$ 1.1
Non-current	8.0	—	—	8.0
Balance at December 31, 2020	$ 8.0	$ 0.6	$ 0.5	$ 9.1
Provisions recognized during the period	**0.2**	**0.2**	**—**	**0.4**
Provisions used or reversed during the period	**(6.5)**	**(0.4)**	**(0.5)**	**(7.4)**
Balance at December 31, 2021	**$ 1.7**	**$ 0.4**	**$ —**	**$ 2.1**
Current	**$ —**	**$ 0.4**	**$ —**	**$ 0.4**
Non-current	**1.7**	**—**	**—**	**1.7**
Balance at December 31, 2021	**$ 1.7**	**$ 0.4**	**$ —**	**$ 2.1**

(B) CONTINGENT LIABILITIES

From time to time in connection with its operations, the Company or its subsidiaries are named as a defendant in actions, including those for damages and costs sustained by plaintiffs, or as a respondent in proceedings challenging the Company's or its subsidiaries' regulatory or other actions, decisions or jurisdiction. The outcomes of such matters are subject to future resolution that includes uncertainties of litigation or other proceedings. Based on information currently known to the Company, management believes that any material payment or other obligation in respect of any such action or proceeding is remote.

NOTE 21 – LEASE OBLIGATIONS AND OTHER COMMITMENTS

(A) LEASES

At inception of a contract, the Company assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices.

As a lessee, the Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and any estimated costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received. The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term and is reduced for any impairment losses and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. The Company applies judgement in determining the lease term for some lease contracts in which there is a renewal option.

Lease payments included in the measurement of the lease liability comprise the following:

- Fixed payments, including in-substance fixed payments which may contain variability but are unavoidable; and
- Variable payments that depend on an index or a rate, are initially measured using the index or rate as at the commencement date. Variable payments based on usage or performance are not included in the measurement of the lease liability.

The lease liability is measured at amortized cost using the effective interest method. The lease liability is subsequently increased by the interest cost and decreased by lease payments made, over the term of the lease. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, a change in the estimate of the amount expected to be payable under a residual value guarantee, or as appropriate, changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised. When a lease liability is remeasured, a corresponding adjustment is also made to the carrying amount of the right-of-use asset.

Short-term leases and leases of low-value assets

The Company has elected to not recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less, and leases of low-value assets. The Company continues to recognize the lease payments associated with these leases as an expense over the term of the lease on a straight-line basis.

For the year ended December 31, 2021, the Company recognized $9.5 and $3.2 of depreciation expense on right-of-use assets and interest expense on lease liabilities, respectively (2020 - $9.4 and $3.3). As at December 31, 2021, $9.3 of lease liabilities were classified as current lease liabilities and recorded in "Other current liabilities"(2020 - $8.1) while non-current lease liabilities were $88.3 (2020 - $86.2).

		Right-of use assets
Cost:		
Balance at January 1, 2020	$	102.8
Lease modifications		(1.5)
Balance at December 31, 2020		101.3
Additions		**5.1**
Lease modifications		**6.6**
Balance at December 31, 2021	**$**	**113.0**
Accumulated amortization:		
Balance at January 1, 2020	$	9.8
Charge for the year		9.4
Balance at December 31, 2020		19.2
Charge for the year		**9.5**
Balance at December 31, 2021	**$**	**28.7**
Net book value:		
At December 31, 2020	$	82.1
At December 31, 2021		84.3

The Company leases several premises. The average lease term is 7 years.

The Company is also responsible for additional taxes, maintenance and other direct charges with respect to its leases. The additional amount was $11.7 for 2021 (2020 – $11.7).

The figures above do not include the Company's obligations to restore certain leased premises to their original condition (note 20).

The Company agreed to a premise lease contract that will commence in January 2022. The future lease payments for the non-cancellable lease contract are $0.3 within one year, $1.4 within five years, and $1.6 thereafter.

AMENDMENT TO IFRS 16

In March 2021, the IASB amended IFRS 16, *Leases*, to extend the practical expedient introduced in May 2020 in response to the COVID-19 pandemic, in order to permit lessees to apply it to rent concessions for which reductions in lease payments affect payments due on or before June 30, 2022 (extended from June 30, 2021). The Company early adopted this amendment from January 1, 2021. This amendment did not have a significant impact on the Company's financial statements.

(B) CDS FEE COMMITMENTS AND REBATES

Under the CDS recognition orders granted by the OSC and the AMF, fees for services and products offered by CDS Clearing will be those fees in effect on November 1, 2011 ("2012 base fees"). CDS Clearing cannot adjust fees without the approval of the OSC, AMF and the British Columbia Securities Commission ("BCSC"). In addition, CDS Clearing may only seek approval for fee increases on clearing and other core CDS Clearing services (which services are outlined in the OSC and AMF recognition orders) where there has been a significant change from circumstances existing as at August 1, 2012, the effective date of the recognition orders.

Under the CDS recognition orders granted by the OSC and AMF, CDS will share any annual revenue increases on clearing and other core CDS Clearing services, as compared to revenues in fiscal year 2012 for the 12-month period ending October 31, 2012, on a 50:50 basis with Participants.

For the year ended December 31, 2021, the rebate payable amounted to $14.3 (2020 – $10.3).

In addition, the Company is mandated to rebate an additional amount to Participants in respect of exchange clearing services for trades conducted on an exchange or Alternative Trading System ("ATS"). This rebate gradually increased over the years to reach its maximum of $4.0 annually in October 2016.

These rebates are accrued and recorded as a reduction against revenue in the year to which they relate.

(C) OTHER COMMITMENTS

The Company has other commitments in the form of long term contracts related to technology in the amount of $33.1 of which $20.7 is payable in one year.

NOTE 22 – OTHER ASSETS AND OTHER LIABILITIES

(A) OTHER ASSETS

Other current and non-current assets are comprised of:

As at		**December 31, 2021**		December 31, 2020
Prepaid expenses	$	**30.6**	$	25.1
Current income tax assets		**2.0**		4.8
Other current assets	$	**32.6**	$	29.9
Investments in equity accounted investees (note 17)	$	**45.8**	$	27.3
Accrued employee benefit assets (note 24)		**21.7**		6.2
Premises and equipment		**64.3**		67.9
Promissory note		**—**		4.7
Other		**1.4**		0.7
Other non-current assets	$	**133.2**	$	106.8

(B) OTHER LIABILITIES

Other current and non-current liabilities are comprised of:

As at		**December 31, 2021**		December 31, 2020
Deferred revenue (note 19)	$	**26.0**	$	18.0
Provisions (note 20)		**0.4**		1.1
Current lease liabilities (note 21)		**9.3**		8.1
Total return swaps (note 23)		**0.4**		2.4
Current income tax liabilities		**32.1**		31.1
Other		**2.5**		—
Other current liabilities	$	**70.7**	$	60.7
Deferred revenue (note 19)	$	**2.7**	$	0.4
Provisions (note 20)		**1.7**		8.0
Long-term incentive plan and director compensation obligations (note 23)		**20.0**		38.6
Accrued employee benefits payable (note 24)		**19.0**		20.2
Other		**0.6**		—
Other non-current liabilities	$	**44.0**	$	67.2

NOTE 23 – SHARE–BASED PAYMENTS

Under the long-term incentive plan (“LTIP”), certain employees and officers of the Company will receive a mix of LTIP awards consisting of share options, time-based restricted share units ("RSUs"), and performance-based restricted share units (referred to as "PSUs"). For the year ended December 31, 2021, the Company recognized compensation and benefits expense under the following share-based payment arrangements:

- Share option plan;
- Restricted share unit, performance-based restricted share unit and deferred share unit plans; and
- Employee share purchase plan.

(A) SHARE OPTION PLAN

The share option plan has options that vest in quarters over 4 years and have a maximum term of 10 years. Under the share option plan, the fair value of share options granted was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions: a share price of between $122.60 and $128.04 dollars (2020 – $117.51 dollars); a

dividend yield of 2.19% (2020 – 2.25%); an expected life of between 2 and 5 years (2020 – 2 and 5 years); an expected volatility of between 19.41% and 19.46% (2020 – 13.9% and 14.5%); a risk-free interest rate of between 0.5% and 1.2% (2020 – 1.6% and 1.7%); and expected forfeiture rates of between 9.4% and 22.1% (2020 – 9.4% and 22.0%). The assumptions are based on the Company's historical share price movements and historical dividend policy and the expected life is based on the Company's past experience. The resulting weighted average fair value calculated for share options granted in 2021 was $14.63 dollars (2020 – $10.37 dollars).

Options outstanding at December 31, 2021 will expire in 2024, 2025, 2026, 2027, 2028, 2029, 2030 and 2031.

Movements in the number of share options outstanding are as follows:

For the year ended		**December 31, 2021**		December 31, 2020
	Number of share options	**Weighted average exercise price (in dollars)**	Number of share options	Weighted average exercise price (in dollars)
Outstanding, beginning of the period	**1,205,874**	**$ 79.27**	1,538,160	$ 66.18
Granted	**210,162**	**127.95**	240,183	117.51
Forfeited	**(54,438)**	**103.34**	(31,879)	75.28
Exercised	**(227,615)**	**66.41**	(540,590)	58.65
Outstanding as at December 31	**1,133,983**	**$ 89.71**	1,205,874	$ 79.27
Vested and exercisable as at December 31	**539,455**	**$ 71.19**	458,615	$ 59.60

The range of exercise prices and weighted average remaining contractual life of options outstanding are as follows:

As at		**December 31, 2021**		December 31, 2020
Exercise price range (in dollars)	**Number of share options**	**Weighted average remaining contractual life**	Number of share options	Weighted average remaining contractual life
$40.00 - $49.99	**95,890**	**3.5**	185,389	4.4
$50.00 - $59.99	**67,500**	**2.9**	73,027	3.6
$70.00 - $79.99	**329,050**	**5.7**	413,439	6.7
$80.00 - $99.99	**238,918**	**7.2**	300,902	8.2
$100.00 - $119.99	**201,216**	**8.1**	233,117	9.1
$120.00 - $129.99	**201,409**	**9.1**	—	—
	1,133,983	**6.7**	1,205,874	7.0

The Company accounts for its share option plan to eligible employees which calls for settlement by the issuance of equity instruments using the fair value based method. Under the fair value based method, compensation cost attributable to options to employees is measured at fair value at the grant date, using a recognized option pricing model, and amortized over the vesting period. The amount recognized as an expense is adjusted to reflect the actual number of options expected to vest. For the year ended December 31, 2021, the Company recognized compensation and benefits expense of $2.2 in relation to its share option plan (2020 – $2.6).

According to the terms of the Company's plan, under no circumstances may any one person's share options and all other share compensation arrangements exceed 5% of the outstanding common shares issued of the Company. At December 31, 2021, 3,400,833 common shares of the Company remain reserved for issuance upon exercise of share options granted under the plan, representing approximately 6% of the outstanding common shares of the Company.

(B) RESTRICTED SHARE UNIT ("RSU"), PERFORMANCE-BASED RESTRICTED SHARE UNIT ("PSU") AND DEFERRED SHARE UNIT ("DSU") PLANS

RSUs and PSUs vest over a maximum of 35 months and generally are payable provided the employee is still employed by the Company at the end of the second calendar year following the calendar year in which the RSUs and PSUs were granted. In the case of the PSUs, the amount of the award payable at the end of this vesting period will be determined by a factor of total shareholder return versus the total gross return of the S&P/TSX Composite Index over the period. Total shareholder return represents the appreciation in share price of the Company plus dividends paid on a common share of the Company, measured at the time the PSUs vest.

The Company has a plan that, among other things, gives executives who have not met their equity ownership requirements the opportunity to convert all or part of their short-term incentive award into deferred share units ("DSUs"). In addition, members of the Board of Directors who do not waive their compensation or direct that it be paid to their employer are granted DSUs annually and are also given the opportunity to convert some of their annual remuneration into DSUs. The DSUs vest immediately. The amount of the award payable is based on the number of units outstanding multiplied by the 30-day volume weighted average price of the Company's common shares at the date of the payout. The DSUs will only be paid out when the DSU holder retires or otherwise ceases to hold any position with the Company or such of its subsidiaries as are designated from time to time.

The Company records its obligation for the RSUs and PSUs, if any, over the service period in which the award is earned. The liability is measured at fair value on the date of grant and at each subsequent reporting date. As at December 31, 2021, the total accrual for the Company's RSUs, PSUs and DSUs was $33.5, which includes $13.5 in trade and other payables and $20.0 in other non-current liabilities (2020 – $57.5, $18.9 and $38.6, respectively).

The maximum amount to be paid is not known until the awards become payable and will be based on total shareholder return from the date of grant to the time of payout. The accrual is based on the 30-day volume weighted average price of the Company's common shares at the end of the reporting period.

Compensation cost attributable to these employee awards which call for settlement in cash is measured at fair value at each reporting date. Changes in fair value between the grant date and the measurement date are recognized in the consolidated income statement over the vesting period, with a corresponding change in either current or non-current liabilities, depending on the period in which the award is expected to be paid. For the year ended December 31, 2021, the Company recognized compensation and benefits expense and selling, general and administration expense of $5.4 and $3.7, respectively, in relation to its RSUs, PSUs and DSUs (2020 – $14.0 and $6.7, respectively).

The Company has entered into a series of TRSs which synthetically replicate the economics of the Company purchasing its shares as a partial economic hedge to the share appreciation rights of RSUs, PSUs, and DSUs.

The Company has classified its series of TRSs as fair value through profit and loss and marks to market the fair value of the TRSs as an adjustment to income. The Company also simultaneously marks to market the liability to holders of the units as an adjustment to income. Fair value is based on the share price of the Company's common shares at the end of the reporting period. The fair value of the TRSs and the obligation to unit holders are reflected on the consolidated balance sheet. The contracts are settled in cash upon maturity.

For the year ended December 31, 2021, unrealized gains of $2.1 and realized losses of $0.4 related to TRSs, respectively have been reflected in the consolidated income statement (2020 – unrealized losses of $1.4 and realized gains of $8.7, respectively).

(C) EMPLOYEE SHARE PURCHASE PLAN

The Company has an employee share purchase plan for eligible employees of the Company. Under the employee share purchase plan, contributions by the Company and by eligible employees will be used by the plan administrator, to make purchases of common shares of the Company on the open market. Effective May 31, 2020, each eligible employee may contribute up to 15% (previously 10%) of the employee's salary to the employee share purchase plan. The Company will contribute to the plan administrator the funds required to purchase one common share of the Company for each two common shares purchased on behalf of the eligible employee, up to a maximum annual contribution of $3,500 dollars per year.

The Company accounts for its contributions as compensation and benefits expense when the amounts are contributed to the plan. For the year ended December 31, 2021, compensation and benefits expense related to this plan was $3.2 (2020 – $2.7).

NOTE 24 – EMPLOYEE FUTURE BENEFITS

The Company has registered pension plans with both a defined contribution tier and a defined benefit tier covering substantially all employees, as well as supplementary income plans ("SIP") for senior management. The costs of these programs are being funded currently, except for the MX SIP, where a portion is guaranteed by a letter of guarantee. The Company also provides other post-retirement and post-employment benefits, such as supplementary medical and dental coverage, which are funded on a cash basis by the Company, and contributions from plan members in some circumstances.

(A) DEFINED CONTRIBUTION PLANS

For defined contribution plans, the expense is charged to compensation and benefits expense in the consolidated income statement as it is incurred. The total expense recognized in respect of the Company's defined contribution plans for the year ended December 31, 2021, was $8.0, which represents the employer contributions for the period (2020 – $7.5).

(B) DEFINED BENEFIT PLANS

The Company measures the present value of its defined benefit obligations and the fair value of plan assets for accounting purposes as at the balance sheet date of each fiscal year. The most recent actuarial valuation of the registered pension plan for funding purposes was as at December 31, 2019, and the next required valuation is as at December 31, 2022. For the TMX supplementary income plan, the most recent actuarial valuation for funding purposes was as at December 31, 2020, and the next scheduled valuation is as at December 31, 2021. For the CDS and MX SIP plans, the funding valuations are performed annually with the most recent actuarial funding valuations completed as of January 1, 2021 and the next scheduled valuations are at January 1, 2022. Lastly, for the non-pension post-retirement plan, the valuation date was May 1, 2021 and the next scheduled valuation is at May 1, 2024.

The accrued benefit assets and accrued benefit obligations related to the Company's defined benefit pension and non-pension post-retirement plans are included in the Company's consolidated balance sheet at December 31 as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2021	2020	**2021**	2020
Accrued employee benefit assets	**$ 21.7**	$ 6.2	**$ —**	$ —
Accrued employee benefits payable	**(0.4)**	(0.5)	**(17.3)**	(18.5)
	$ 21.3	$ 5.7	**$ (17.3)**	$ (18.5)

Accrued employee benefits payable on the consolidated balance sheet also includes the obligation under the post-employment benefit plan of $1.3 (2020 – $1.2).

The Company's net obligation in respect of pension and SIP plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods, and that benefit is discounted to determine its present value and the fair value of any plan assets are then deducted. The benefits are based upon earnings and years of service. The Company's net obligation in respect of the post-retirement and post-employment benefit plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods, discounted to determine its present value. Under all these plans, the discount rates used are based on Canadian AA-rated corporate bond yields.

The calculation is performed annually by an actuary based on management's best estimates using the projected benefit method pro-rated on service. If the calculation results in a surplus, accounting standards require that a limit is placed on the amount of this surplus that can be recognized as an asset. The total amount of defined benefit asset that can be recognized by the Company is limited to the present value of economic benefits available by way of future refunds of plan surplus and/or reductions in future contributions to the plan. In the determination of the economic benefit, minimum funding requirements resulting from the most recent actuarial funding valuations are also taken into consideration. An economic benefit is considered available to the Company if it is realizable during the life of the plan or on settlement of the plan obligations.

The accrued benefit assets and accrued benefit liabilities are comprised of:

	Pension and SIP plans		Other post-retirement benefit plans	
	2021	2020	**2021**	2020
Accrued benefit obligation:				
Balance, beginning of the year	**$ 126.3**	$ 116.0	**$ 18.5**	$ 16.4
Service (recovery) cost	**1.3**	(0.9)	**0.8**	0.7
Interest cost	**3.1**	3.5	**0.5**	0.5
Benefits paid	**(5.7)**	(5.3)	**(0.7)**	(0.5)
Employee contributions	**0.1**	0.1	**—**	—
Actuarial (gains) losses	**(10.8)**	12.9	**(1.8)**	1.4
Balance at December 31	**$ 114.3**	$ 126.3	**$ 17.3**	$ 18.5
Plan assets:				
Fair value, beginning of the year	**$ 132.0**	$ 119.6	**$ —**	$ —
Interest income	**3.3**	3.6	**—**	—
Employer contributions	**3.5**	3.7	**0.7**	0.5
Employee contributions	**0.1**	0.1	**—**	—
Benefits paid	**(5.7)**	(5.3)	**(0.7)**	(0.5)
Plan administration cost	**(0.3)**	(0.3)	**—**	—
Actuarial gains	**2.7**	10.6	**—**	—
Fair value at December 31	**$ 135.6**	$ 132.0	**$ —**	$ —
Accrued benefit asset (liability) at December 31	**$ 21.3**	$ 5.7	**$ (17.3)**	$ (18.5)

Plan assets consist of:

	Percentage of plan assets	
Asset category	**2021**	2020
Equity securities	**46.7 %**	48.7 %
Debt securities	**39.2 %**	37.8 %
Other	**14.1 %**	13.5 %
	100.0 %	100.0 %

MX has provided a letter of guarantee in the amount of $0.4 to the benefit of the trustee of the MX SIP (2020 – $0.5), using a part of the TMX Group Limited credit facility (note 11).

The service cost, which represents the benefits accruing to the employees, along with the interest cost, is recognized in the compensation and benefits expense in the consolidated income statement.

The elements of the Company’s defined benefit plan costs recognized in the year ended December 31 are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2021	2020	**2021**	2020
Service (recovery) cost	**$ 1.3**	$ (0.9)	**$ 0.8**	$ 0.7
Net interest (income) cost	**(0.2)**	(0.1)	**0.5**	0.5
Plan administration cost	**0.3**	0.3	**—**	—
Net benefit plan expense (income) recognized in the income statement	**$ 1.4**	$ (0.7)	**$ 1.3**	$ 1.2

The Company recognizes all actuarial gains and losses arising from defined benefit plans and post-retirement plans immediately in other comprehensive income along with the expected return on plan assets. For the post-employment plans, actuarial gains and losses are recognized within compensation and benefits expense in the consolidated income statement. When the benefits of a plan are amended, the portion of the change in benefit relating to past service by employees is recognized immediately in the compensation and benefits expense in the consolidated income statement.

The aggregate actuarial gains and losses and effects of asset limits recognized in other comprehensive income for the year ended December 31, are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2021	2020	**2021**	2020
Effect due to demographics	**$ —**	$ —	**$ (0.3)**	$ —
Effect due to financial assumptions	**(10.1)**	10.0	**(1.4)**	1.4
Effect due to experience adjustments	**(0.7)**	2.9	**(0.1)**	—
Return on plan assets (excluding interest income)	**(2.7)**	(10.6)	**—**	—
Actuarial losses (gains) recognized in other comprehensive income	**$ (13.5)**	$ 2.3	**$ (1.8)**	$ 1.4

The significant actuarial assumptions adopted in measuring the obligation as at December 31 are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2021	2020	**2021**	2020
Discount rate (weighted average)	**3.10 %**	2.50 %	**3.10 %**	2.50 %
Inflation rate (consumer price index)	**1.75 %**	1.50 %	**n/a**	n/a
Commuted value	**2.90 %**	2.30 %	**n/a**	n/a
Rate of compensation increase	**3.00 %**	3.00 %	**n/a**	n/a

Assumptions regarding mortality rates are based on published statistics and mortality tables. The mortality tables used in 2020 and 2021 for the pension, SIP and other post-retirement plans was the Canadian Pensioner Mortality (CPM) 2014 private sector table with projection scale CPM-B and CPM2014 table with projection scale CPM-B for lump sum payments. The assumed health care cost trend rate at December 31, 2021 was 5.50% decreasing to 4.00% over 19 years (2020 – 5.60% decreasing to 4.00% over 20 years).

At December 31, 2021, the weighted-average duration of the defined benefit obligation was approximately 12 years (2020 - 13 years).

Reasonably possible changes to one of the relevant actuarial assumptions, holding other assumptions constant, would impact the accrued benefit obligations as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
(Increase)/Decrease	**2021**	2020	**2021**	2020
50 bps decrease in the discount rate	**$ (7.2)**	$ (8.5)	**$ (1.2)**	$ (1.4)
50 bps increase in the discount rate	**6.4**	7.5	**1.1**	1.2
1 year increase in mortality rates	**(2.6)**	(2.7)	**(0.7)**	(0.8)
100 bps decrease in initial and ultimate trend rates	**n/a**	n/a	**0.5**	0.7
100 bps increase in initial and ultimate trend rates	**n/a**	n/a	**(0.5)**	(0.8)

In 2022, the Company expects to contribute approximately $1.6 to its pension and other post-retirement benefit plans. Additional amounts to be contributed to the Company's SIP plans will be determined by management once the valuations have been prepared.

NOTE 25 – SHARE CAPITAL

The authorized capital of the Company consists of an unlimited number of common shares and an unlimited number of preference shares, issuable in series. No preference shares have been issued.

Each common share of the Company entitles its holder to one vote at all meetings of shareholders subject to certain restrictions with respect to the voting rights and the transferability of the shares. No person or combination of persons acting jointly or in concert is permitted to beneficially own or exercise control or direction over more than 10% of any class or series of voting shares of the Company without the prior approval of the OSC and the AMF.

Each common share of the Company is also entitled to receive dividends if, as and when declared by the Board of Directors of the Company. All dividends that the Board of Directors of the Company may declare and pay will be declared and paid in equal amounts per share on all common shares, subject to the rights of holders of the preference shares. Holders of common

shares will participate in any distribution of the net assets of the Company upon liquidation, dissolution or winding–up on an equal basis per share, but subject to the rights of the holders of the preference shares.

There are no preemptive, redemption, purchase or conversion rights attaching to the common shares, except for the compulsory sale of shares or redemption provision described in connection with enforcing the restriction on ownership of voting shares of the Company.

On February 26, 2021, the Company announced that the TSX accepted its new normal course issuer bid ("NCIB 2021") under which it can purchase for cancellation up to a maximum number of 560,000 of its common shares. Purchases under the NCIB 2021 commenced on March 8, 2021 and were made at prevailing market prices at the time of acquisition and in accordance with the rules and policies of the TSX. On November 29, 2021, the Company reached the maximum number of shares available for repurchase.

During the year ended December 31, 2021, the Company purchased 560,000 common shares for cancellation under NCIB 2021, at an average price of $131.13 dollars, and for a total amount of $73.4 (2020 - no common shares purchases for cancellation under NCIB 2021).

On January 8, 2021, the Company completed the purchase of its common shares under its previous normal course issuer bid ("NCIB 2020"), which commenced on March 4, 2020, as the Company reached the maximum number of 560,000 shares available for repurchase.

During the year ended December 31, 2021, the Company purchased 86,600 common shares for cancellation under NCIB 2020, at an average price of $126.88 dollars, and for a total amount of $11.0 (2020 - 473,400 common shares purchased at an average price of $120.09 dollars and for a total amount of $56.8).

The following transactions occurred with respect to the Company’s common shares during the period:

	Number of common shares issued and fully paid		**Share capital**	
	2021	2020	**2021**	2020
Balance, beginning of the period	**56,301,119**	56,233,929	**$ 2,943.6**	$ 2,965.1
Options exercised	**227,615**	540,590	**16.6**	35.3
Shares repurchased under normal course issuer bid	**(646,600)**	(473,400)	**(84.4)**	(56.8)
Balance as at December 31	**55,882,134**	56,301,119	**$ 2,875.8**	$ 2,943.6

The Company’s shares trade on Toronto Stock Exchange under the symbol “X”.

NOTE 26 – RELATED PARTY RELATIONSHIPS AND TRANSACTIONS

(A) PARENT

The shares of the Company are widely held and as such there is no ultimate controlling party of the Company. Under the OSC and AMF recognition orders, no person or combination of persons acting jointly or in concert is permitted to beneficially own or exercise control of direction over more than 10% of any class or series of voting shares of the Company without prior approval of the OSC and the AMF.

(B) KEY MANAGEMENT PERSONNEL COMPENSATION

Compensation for key management personnel, including the Company’s Board of Directors, was as follows:

For the year ended	**December 31, 2021**	December 31, 2020
Salaries and other short-term employee benefits, and termination benefits	**$ 11.8**	$ 10.4
Post-employment benefits	**0.7**	0.6
Share-based payments	**6.8**	12.9
	$ 19.3	$ 23.9

NOTE 27 – DIVIDENDS

Dividends recognized and paid in the period are as follows:

For the year ended		December 31, 2021			December 31, 2020			
		Dividend per share		Total paid		Dividend per share		Total paid
Dividend paid in March	$	0.70	$	39.4	$	0.66	$	37.2
Dividend paid in June	$	0.77	$	43.3	$	0.66	$	37.2
Dividend paid in September	$	0.77	$	43.1	$	0.70	$	39.6
Dividend paid in December	$	0.77	$	43.1	$	0.70	$	39.6
Total dividends paid			$	**168.9**			$	153.6

On February 7, 2022, the Company's Board of Directors declared a dividend of 83 cents per share. This dividend will be paid on March 11, 2022 to shareholders of record on February 25, 2022 and is estimated to amount to $46.4.

NOTE 28 – FUTURE ACCOUNTING DEVELOPMENTS

The following new standards and amendments to standards and interpretations are not yet effective for the year ending December 31, 2021, and have not been applied in the preparation of the financial statements. These new and amended standards and interpretations are required to be implemented for financial years beginning on or after January 1, 2022:

- IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* – Amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts. Before recognizing a separate provision for an onerous contract, the entity recognizes any impairment loss that has occurred on assets used in fulfilling the contract. The amendments apply to contracts existing at the date when the amendments are first applied. The Company does not expect the amendments to have a material impact on its financial statements.
- Reference to the Conceptual Framework – Amendments to IFRS 3, *Business Combinations* – Minor amendments were made to IFRS 3 to update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37, *Provisions, Contingent Liabilities and Contingent Assets* and Interpretation 21, *Levies*. The amendments also confirm that contingent assets should not be recognized at the acquisition date. The Company does not expect the amendments to have a material impact on its financial statements.

Accounting standards effective beyond 2022

The following accounting standards are required to be implemented for financial years beginning on or after January 1, 2023 and are not expected to have a significant impact on the Company's financial statements:

- Classification of liabilities as current or non-current (Amendments to IAS 1, *Presentation of Financial Statements*)
- Disclosure of Accounting Policies (Amendments to IAS 1)
- Definition of Accounting Estimate (Amendments to IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*)
- Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction (Amendments to IAS 12, *Income Taxes*)

Investor Contact Information

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Le rapport est également disponible en français.

Dividend Information

The Board of Directors of TMX Group Limited declared a dividend of $0.83 on each common share outstanding, payable on March 11, 2022 to shareholders of record at the close of business on February 25, 2022. TMX Group hereby advises that this dividend is an "eligible dividend" for Canadian income tax purposes. Shareholders with questions regarding the tax treatment of dividends should consult with their own tax advisors or contact their local office of the Canada Revenue Agency and where applicable, the provincial taxation authorities.

Normal Course Issuer Bid

On February 25, 2022, TMX Group announced that its normal course issuer bid ("NCIB") had been accepted by Toronto Stock Exchange ("TSX"). TMX Group intends to repurchase up to 560,000 of its common shares through the facilities of the TSX, representing approximately 1% of its common shares outstanding on February 22, 2022. TMX Group will make purchases in accordance with TSX requirements and the price TMX Group will pay for any such common shares will be the market price of such shares at the time of acquisition. The purchases were eligible to commence on March 4, 2022 and will terminate on March 3, 2023, or on such earlier date as TMX Group completes its purchases. All repurchased shares will be cancelled.

The Company also entered into a pre-defined plan with its designated broker to allow for the repurchase of common shares at times when the TMX Group ordinarily would not be active in the market due to its own internal trading blackout periods, insider trading rules or otherwise.

A copy of our Notice of Intention to Make an NCIB may be obtained, without charge, by contacting Investor Relations as outlined above.

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Forward-Looking Information

This report contains forward-looking statements which are not historical facts but are based on certain assumptions and reflect TMX Group's current expectations. These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results or events to differ materially from current expectations. We have no intention to update this forward-looking information, except as required by applicable securities law. This forward-looking information should not be relied upon as representing our views as of any date subsequent to the date of this report.

Please see "Caution regarding Forward-Looking Information" in the 2021 Annual Management's Discussion and Analysis for some of the risk factors that could cause actual events or results to differ materially from current expectations.

Board of Directors

AS AT FEBRUARY 28, 2022

Charles Winograd (Chair)

Senior Managing Partner
Elm Park Capital Management
Committees: Governance and Regulatory Oversight, Human Resources
Director since: 2012

Marie Giguère

Corporate Director
Committees: Governance and Regulatory Oversight (Chair), Human Resources
Director since: 2011

Luc Bertrand

Vice Chair
National Bank Financial Group
Committees: Derivatives (Chair), Public Venture Market
Director since: 2011

Martine Irman

Corporate Director
Committees: Derivatives, Finance and Audit, Public Venture Market
Director since: 2014

Nicolas Darveau-Garneau

Chief Strategist, Google Search
Committees: Governance and Regulatory Oversight, Human Resources
Director since: 2018

Moe Kermani

Managing Partner, Vanedge Capital
Committees: Human Resources, Public Venture Market
Director since: 2020

William Linton

Corporate Director
Committees: Finance and Audit (Chair), Governance and Regulatory Oversight
Director since: 2012

Kevin Sullivan

Corporate Director
Committees: Derivatives, Finance and Audit, Public Venture Market
Director since: 2012

Audrey Mascarenhas

President and CEO, Questor Technology Inc.
Committees: Governance and Regulatory Oversight, Public Venture Market
Director since: 2021

Claude Tessier

Chief Financial Officer
Alimentation Couche-Tard Inc.
Committees: Derivatives, Finance and Audit
Director since: 2020

John Mckenzie

Chief Executive Officer
TMX Group Limited
Director since: 2020

Eric Wetlaufer

Managing Partner, TwinRiver Capital
Corporate Director
Committees: Finance and Audit, Human Resources (Chair)
Director since: 2012

TMX Group Executive Officers

AS AT FEBRUARY 28, 2022

John McKenzie
Chief Executive Officer

Loui Anastasopoulos
CEO, Toronto Stock Exchange and Global Head, Capital Formation

David Arnold
Chief Financial Officer

Cindy Bush
Chief Human Resources Officer

Peter Conroy
CEO, Trayport

Luc Fortin
President and Chief Executive Officer, Montréal Exchange and Global Head of Trading

Cheryl Graden
Chief Legal and Enterprise Corporate Affairs Officer and Corporate Secretary

Jay Rajarathinam
Chief Operating Officer

For more information

Please contact TMX Group if you have any additional questions or require further clarification.

General Enquiries

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