

TMX Group Limited

MANAGEMENT'S DISCUSSION AND ANALYSIS

February 5, 2024

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, 2023, compared with the year ended December 31, 2022 and as at December 31, 2023 and December 31, 2022. This MD&A should be read together with our audited annual consolidated financial statements for the year ended December 31, 2023 (the financial statements).

Our financial statements and this MD&A for 2023 are filed with Canadian securities regulators and can be accessed at www.tmx.com and www.sedarplus.ca. The financial measures included in this MD&A are based on financial statements prepared in accordance with IFRS Accounting Standards, as issued by the International Accounting Standards Board (IASB), unless otherwise specified. All amounts are in Canadian dollars unless otherwise indicated.

Certain comparative figures have been reclassified in order to conform with the financial presentation adopted in the current year.

On May 2, 2023, the shareholders approved a five-for-one split of TMX Group's common shares outstanding (the Stock Split). On June 13, 2023 (the payment date), shareholders of record as of the close of business on June 8, 2023 (the record date) received four additional common shares for every one common share held. The common shares commenced trading on a split-adjusted basis on June 14, 2023. All common share numbers and per share amounts, including comparative figures, have been adjusted to reflect the Stock Split.

Additional information about TMX Group, including the Annual Information Form, is available at www.tmx.com and www.sedarplus.ca. 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:

- Purpose, Mission, Client First Vision, Sustainable Growth and Financial Objectives;
- Initiatives and Accomplishments - 2023 initiatives and accomplishments;
- 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 2021-2023, the fourth quarter of 2023 compared with the corresponding period in 2022 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 2023 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.

PURPOSE, MISSION, CLIENT FIRST VISION, SUSTAINABLE GROWTH AND FINANCIAL OBJECTIVES

Purpose

We make markets better & empower bold ideas.

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 Growth¹

We prioritize four areas in our efforts to drive sustainable growth:

- Growth Acceleration: Position TMX Group competitively in areas of high growth potential.
- Talent and Culture: Invest in our people to bolster employee engagement and purpose, ensure a respectful and inclusive workplace, amplify our employer brand that attracts and retains talent, and foster succession and employee development.
- Advocate for Better Markets: Collaborate with stakeholders including clients, regulators, and government to enhance the competitiveness of Canadian capital markets.
- Environmental, Social and Governance (ESG): Integrate ESG objectives and initiatives into TMX Group's core objectives and positioning TMX Group as a world-leading marketplace for sustainable investment and finance with our products and services.

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 Objectives²

We are well positioned to accelerate our long term revenue growth, driven by our business strategy and recent acquisitions. Our long term objectives are Strong Growth* for total reported revenue compound annual growth rate (CAGR)³ and presented below along with our long term adjusted earnings per share (EPS) CAGR^{3,4}, dividend payout ratio⁵ and debt to adjusted EBITDA ratio⁶ targets.

Long Term TMX Group Objectives

Double digit adjusted EPS CAGR		
Strong Growth* revenue CAGR		
High Growth* • TSX Trust • Derivatives Trading & Clearing • GSIA: TMX Trayport • GSIA: TMX VettaFi	Strong Growth* • Capital Formation (excl. TSX Trust) • GSIA: TMX Datalinx	Market Growth* • Equity & FI Trading and Clearing
40-50% Target dividend payout ratio	1.5 - 2.5 x Target debt / adjusted EBITDA	

Note: High Growth is defined as high-single to double digit revenue CAGR, Strong Growth is defined as 5% plus revenue CAGR, and Market Growth is defined as revenue CAGR in line with the overall market.*

In 2023, we made an equity investment for approximately ~22% in VettaFi followed by the acquisition of the remaining approximately ~78% common units completed on January 2, 2024, subsequent to the reporting period. TMX VettaFi has been identified as one of our High Growth* businesses.

While we believe that these long term financial objectives are reasonable, we may not be able to achieve these objectives, as our assumptions may prove to be inaccurate and therefore our actual results could differ materially from our long term objectives. For example, ongoing geopolitical events, threat of a global recession, and fluctuations in foreign exchange rates are all impacting 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 in a given period may differ from these objectives, and our ability to attain these objectives must be weighed against our need to invest in our business in order to execute on our strategy. Some examples of these assumptions underlying these objectives 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 revenue CAGRs based on certain assumptions and expected performance over the long term.

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

⁴ Adjusted EPS and adjusted EPS CAGR are non-GAAP ratios, see discussion under "Non-GAAP Measures" for more information.

⁵ Dividend payout ratio is a non-GAAP ratio, see discussion under "Non-GAAP Measures" for more information.

⁶ Debt/Adjusted EBITDA is a non-GAAP ratio, see discussion under "Non-GAAP Measures" for more information.

Transformational Objectives⁷

Our sustainable growth strategy and long term financial objectives support our continued desire to increase our global footprint and recurring revenue as we become even more of an information business than we are today. Our Transformational Objectives⁸ beyond ten years are outlined below.

Transformational Objectives

more than two thirds Recurring Revenue ^I	more than half Revenue outside of Canada ^{II}	more than half Global Solutions, Insights and Analytics (GSIA) revenue ^{III}
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^I 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.

^{II} Revenue based on the country to which customer invoices are addressed.

^{III} GSIA segment revenue as a percentage of total TMX revenue.

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 Company (TSX Trust), TMX Group's transfer agency and corporate trust services business which includes AST Canada (acquired August 12, 2021).

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 The Canadian Depository for Securities Limited and its subsidiaries including CDS Clearing and Depository Services Inc. (CDS Clearing) and CDS Innovations Inc. (collectively, CDS).

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

Lines of business include Montréal Exchange (MX), Canadian Derivatives Clearing Corporation (CDCC), and BOX Options Market LLC (BOX) (consolidated January 3, 2022).

Global solutions, insights and analytics: Deliver equities data, index data, derivatives 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. With the addition of TMX VettaFi (acquired January 2, 2024) we also provide leading products and services in indexing, digital distribution, data analytics and thought leadership.

Lines of business include TMX Datalinx which includes Wall Street Horizon (WSH) (acquired November 9, 2022); Co-location; TMX Trayport which includes Vienna-based VisoTech (Trayport Austria G.m.b.H.) and Germany-based Tradesignal (Trayport Germany G.m.b.H.); and U.S.-based TMX VettaFi (acquired January 2, 2024).

⁷ The "Transformational 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.

⁸ Will be delivered by a combination of organic and inorganic activity

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 vision.

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 and communicate our progress. We look to:

- Lead by example by building a strong foundation of our own sustainable company practices and reporting
- Engage with stakeholders and support our issuer base and clients
- Support transition finance with our ESG products and services

INITIATIVES AND ACCOMPLISHMENTS

Capital Formation⁹

Venture Forward

In June 2022, TSXV launched a new initiative called "Venture Forward" to advance the evolution of our market by seeking out ways to reduce the barriers and burdens to access public venture capital, expand the global issuer and investor base, and grow the overall ecosystem. As part of the first stage of the initiative, detailed feedback was received from issuers, investors, advisors, and other representatives from across our stakeholder community on how Canada's unique public venture ecosystem can take action to innovate, adapt and evolve.

Building on the invaluable community feedback received, the next phase of Venture Forward was announced in June 2023, and outlines our commitments over the coming years. In addition to four key commitments to support new companies and investors to enter our ecosystem, we are making six additional commitments designed to enhance TSXV's position as the global leader in supporting the success of small and medium-size public companies¹⁰.

Key commitments:

- Introducing an innovative TSXV Passport Listing Process to significantly accelerate the listing and capital-raising timeline for qualified TSXV new listing applicants,
- Accelerating TSX Venture Exchange's ongoing Digital Transformation by providing issuers with increased access to digital products, services, and resources,
- Launching TSXV Sandbox, an initiative to encourage innovation and provide support for listing unique businesses or transaction structures, and
- Evaluating the need and appetite for a new, Highly Differentiated exchange to complement TSXV, with the goal of providing new categories of early-stage companies, alternative asset classes, and investors with access to public markets.

AST Canada

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. The previously expected revenue and expense synergies of approximately \$10.0 million has been substantially achieved with approximately \$7.0 million of revenue and expense synergies realized by the end of 2023. We expect the remaining approximately \$3.0 million of expense synergies to be reflected in *Information and trading systems* expenses in future periods as they are realized.

Pricing

In December 2023, we received regulatory approval for a price change on the TSX, changing the maximum sustaining fee to \$145,000. Taking into account the market capitalization of our listed issuers as at December 31, 2023, we expect this change will have a positive impact of approximately 1% to 2% from 2023 revenue in Capital Formation excluding other issuer services on an annualized basis. Actual revenue for future periods will also depend on activity in those quarters.

⁹ 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.

¹⁰ Please refer to the Venture Forward website at "ventureforward.tsx.com" for additional information.

Equities and Fixed Income Trading and Clearing¹¹

Canadian Collateral Management Service

In May 2023, we announced our collaboration with Clearstream Banking S.A. (Clearstream), the international central securities depository of Deutsche Börse, to launch the Canadian Collateral Management Service (CCMS). The CCMS is an innovative solution that optimizes and automates collateral across various exposure types. The initial phase of the CCMS will support domestic tri-party Repurchase Agreement services which fully automates cash driven repo throughout the transaction's lifecycle to improve efficiencies, enhance liquidity, and reduce operational risk. Onboarding of early adopter clients is underway to support the launch of the initial phase of CCMS in Q1/24. The next phase will support the industry shift to a T+1 settlement cycle for the Canadian market in 2024 by offering tri-party collateral services for securities lending, CCP margin, and other collateral exposures.

U.S. Expansion

In October 2023, we announced our plan to expand into the U.S. markets. In 2023, a key hire was onboarded to lead the initiative, and development of the technology has begun. Since the commencement of the U.S. expansion initiative, we have spent approximately \$1.7 million, \$1.3 million of which is operating expenses with the remaining \$0.4 million in capital expenditures. These costs are included in *Operating expenses* and *Intangible assets*, respectively. In 2024, we expect total cash spend of approximately \$19.0 million to \$21.0 million, of which about half will be included in *Operating expenses* (excluding depreciation and amortization), with a larger portion of the spend in the second half of the year.

Alpha-X and Alpha DRK

In August 2023, TSX Alpha Exchange (Alpha) received regulatory approval to introduce two new order books on Alpha. One being visible, also referred to as a "lit order book" (Alpha-X) and the other being non-visible, also referred to as a "dark order book" (Alpha DRK). The introduction of the new order books provides platforms on which TMX Group can introduce innovative trading solutions, such as Smart Limit and Smart Peg orders, that help clients optimize their trading. The new order books were launched in Q4/23.

TSX DRK

We continue to make progress on the expansion of TSX's Dark Trading offering (TSX DRK) which began in 2020. TSX DRK has made substantial gains in this market segment, increasing its continuous trading market share in TSX listed securities from 18% in 2019 to 32% in 2023. We will continue our planned expansion initiatives and investments to increase user adoption, introduce new offerings, and support continued market share growth.

Pricing

In April 2023, price changes for order entry session fees for TSX, TSXV, and Alpha took effect. In addition, we received regulatory approval to discontinue the current credit of \$40 per symbol per month awarded to TSXV Odd Lot Dealers effective March 1, 2024. We expect these changes will have an aggregate positive impact of approximately 1% to 2% from 2023 revenue in Equities and fixed income trading on an annualized basis.

¹¹ 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.

Derivatives Trading and Clearing¹²

Transition to CORRA

The transition from Canadian Dollar Offer Rate (CDOR) to Canadian Overnight Repo Rate Average (CORRA) remains key, as full cessation is scheduled for June 2024. We continue our efforts to ensure a smooth transition from the Three-Month Canadian Bankers' Acceptance futures contract (BAX) to CORRA futures contract, namely around having the proper products and market structure in place. The Three-Month CORRA Futures (CRA) product reached average daily volumes of 34,000 in 2023. Open interest for the CRA product reached 577,000 contracts as of December 31, 2023 compared with 401,000 contracts for the BAX.

Pricing

In January 2024, price changes on interest rate and index derivatives clearing fees and repurchase transaction clearing and processing fees came into effect. We expect these changes will have an aggregate positive impact of approximately 3% to 4% based on 2023 revenue in Derivatives Trading and Clearing (excluding BOX).

Global Solutions, Insights and Analytics (GSIA)¹³

TMX Trayport

Global Power Offering

We continue to make progress on TMX Trayport's global power strategy. In North America, TMX Trayport continues to build on its partnership with Nodal Exchange and is working closely with participants to deliver specific market requirements and build liquidity. In 2023, approximately 4% to 5% of TMX Trayport's revenue was from North American sources.

Pricing

In December 2023, we notified clients of our annual price changes across TMX Trayport products related to United Kingdom CPI with an expected aggregate positive impact of approximately 5% from 2023 revenue in TMX Trayport on a constant currency annualized basis.

TMX Datalinx

ESG Data Hub

In October 2023, we launched the new TMX ESG Data Hub. Working with leading ESG data and analytics providers, the TMX ESG Data Hub delivers data to global clients in support of ESG integration in investment decision-making processes. This includes tracking climate action plans, quantifying impact, screening companies and proxy controversies, following news and events and performing corporate peer analysis.

¹² 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.

¹³ 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.

Term CORRA

In September 2023, the Term CORRA benchmark was launched. Term CORRA, a forward looking term rate, replaces CDOR in loans and associated derivative hedges and is derived from transactions and executable bids and offers from CORRA interest rate futures traded on the Montréal Exchange. Term CORRA is produced and managed by CanDeal Benchmark Administration Services Inc. as the benchmark administrator and with TMX Datalinx providing the licensing and distribution capabilities. This partnership to deliver the Term CORRA benchmark is another step in advancing our Index and Benchmark strategy as well as our additional core content.

Pricing

As of December 2023, we received regulatory approval for pricing changes on the following TMX Datalinx products: subscriber and data feeds, end-of-day S&P/TSX index files, CDS and CDCC offerings, and on all historical data offerings. The aggregate positive impact of these pricing changes is expected to be approximately 1% from 2023 revenue in TMX Datalinx including Co-location revenue on a constant currency annualized basis.

VettaFi Acquisition¹⁴

In January 2023, we made a strategic investment in and entered a commercial agreement with VettaFi, U.S.-based, privately owned data, analytics, indexing, digital distribution, and thought leadership company. VettaFi cultivates an industry-leading, data-driven platform, built to empower and educate the modern financial advisor, asset manager and institutional investor. TMX Group acquired 21.3% of the common shares of VettaFi for US\$175 million (\$234 million). The acquisition was partially funded through the Commercial Paper program, with approximately \$200 million having been initially issued. On April 21, 2023, TMX Group increased its interest in VettaFi to 22.3% in exchange for 100% of its interest in SigmaLogic (acquired February 16, 2023). The sale resulted in a gain of US\$1.0 million (CAD \$1.3 million), included in *Other income* in the Consolidated income statements.

On January 2, 2024, we completed the acquisition of the remaining approximately 78% common units in VettaFi for approximately US\$853 million (\$1.13 billion*) in cash, subject to balance sheet adjustments. This brings the total amount paid for 100% of the common units to approximately US\$1.04 billion (\$1.38 billion*), which includes the strategic investments TMX Group made in VettaFi as discussed above.

Summary financial details:

- 80%+ recurring revenues over the last twelve months through September 30, 2023.
- VettaFi's revenue for the year ended December 31, 2023 was US\$85.9 million (\$115.9 million**), net income was US\$5.0 million (\$6.8 million**), and adjusted earnings before interest, taxes, depreciation and amortization (adjusted EBITDA) was US\$47.9 million (\$64.6 million**) ¹⁵.
- VettaFi's revenue for 2024 is expected to be more than US\$100 million (\$132 million*), with an adjusted EBITDA margin of approximately 60% ¹⁶.

¹⁴ The "VettaFi Acquisition" 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. Please refer to *Note 17(B) - Equity Accounted Investments - VettaFi* in the TMX Group Limited Consolidated Financial Statements for more information.

¹⁵ For the year ended December 31, 2023 VettaFi net income \$6.8 million, add back interest expense \$15.6 million, depreciation of amortization \$26.8 million, management fees \$3.5 million, transaction and integration related costs of \$10.2 million, and stock-based compensation of \$2.4 million, less income tax of \$0.6 million. In 2023, there was also \$1.9 million related to a transitional services agreement for ROBO. VettaFi revenue and adjusted EBITDA are compilations of financial information provided by VettaFi management. It is not prepared in accordance with IFRS for public companies.

¹⁶ VettaFi financial information is unaudited and provided by VettaFi management. It is not prepared in accordance with IFRS for public companies.

- The transaction is expected to be accretive to adjusted earnings per share¹⁷ in year one, excluding any synergies.

*Converted at the CAD/USD exchange rate of 1.3239 at closing.

**Converted at the average CAD/USD exchange rate of 1.3494 for 2023.

The transaction closed on January 2, 2024 and was financed with bank debt of US\$963 million (\$1.27 billion) in term loans (the Term Credit Facility with US\$600 million (\$794 million)), US\$163 million (\$216 million) and US\$200 million (\$265 million) maturing approximately 12, 18 and 24 months from closing, respectively. The weighted average yield of the Term Credit Facility is SOFR + 101.5 bps.

VettaFi acquired ROBO Global LLC (ROBO Global) and EQM Indexes LLC (EQM) in April and September 2023 respectively. ROBO Global is an index and research company focused on robotics, artificial intelligence and healthcare technology indices, while EQM is an innovative provider of custom thematic index solutions for the ETF industry. As of December 31, 2023, over US\$32 billion linked assets tracking VettaFi's indices.

Update on Modernization of CDS Clearing Platform¹⁸

The CDS modernization project involves the replacement of certain legacy systems at CDS including those related to clearing and settlement, as well as entitlement payment systems. Since the commencement of the modernization project we spent \$43.8 million up to the end of 2019 on capital expenditures, \$27.8 million in 2020, \$21.0 million in 2021, \$19.5 million in 2022, and \$15.2 million in 2023. 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, 2021, 2022, and 2023.

In Q1/23, the adoption date to shorten the standard settlement cycle from two days (T+2) to one day (T+1) was finalized and communicated by Canadian regulators in collaboration with industry participants. As a result of the move to T+1 and recognizing that it is a market priority, a decision was made to defer the implementation of PTM until after the industry transition to T+1 which is currently expected to be in May 2024. We are planning a revised launch in Q4/24; however this timing may change if there is a significant delay in the implementation of T+1 settlement. Overall, we expect to incur between approximately \$130 and \$140 million in capital expenditures related to the CDS modernization project. We will continue to provide updates on estimates for capital expenditures and timing as this complex project progresses.

Corporate

Strategic Re-Alignment¹⁹

In November 2023, we made a number of changes to streamline our organization and position TMX Group for ongoing success while creating capacity for growth. As a result of these changes, we incurred strategic re-alignment expenses of approximately \$5.7 million in Q4/23 primarily reflected in our *Compensation and benefits* expenses. These changes include combining areas, leveraging automation, and are expected to generate annual savings of approximately \$4.2 million starting in Q3/24.

¹⁷ Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

¹⁸ 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.

¹⁹ The "Strategic Re-Alignment" 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.

MARKET CONDITIONS AND OUTLOOK²⁰

Monetary policy tightening to rein in inflation pressures continued in 2023. The average CBOE Volatility Index (VIX) was 16.9 in 2023, compared with 25.6 in 2022. Overall, Canadian equities trading volumes were down 18% in 2023 compared with 2022.²¹ Across all of our equities markets, overall trading volumes were down 18% in 2023 compared with 2022 with trading volumes on TSX, TSXV, and Alpha decreasing by 18%, 16%, and 28%, respectively. In Canadian derivatives trading, the volume of contracts traded on MX was up 14% in 2023 compared to 2022. In 2023, we saw increased trading in short-term interest rate futures, equity and ETF options, and two and five year bond futures.

Market uncertainty led by geopolitical conflict and the threat of a global recession continued to contribute to less favourable conditions for capital raising in 2023. On TSX, the total amount of financing dollars raised decreased by 20% from 2022 to 2023, and the total number of financings decreased by 6% over the same period. On TSXV (including NEX) there was a 27% decrease in the total amount of financing dollars raised, and the total number of financings decreased by 1% in 2023 over 2022.

On January 24, 2023, the Bank of Canada (the Bank) announced that it was holding its target for the overnight rate at 5%, with the Bank Rate at 5¼% and the deposit rate at 5%. The Bank is also continuing its policy of quantitative tightening. Global economic growth continues to slow, with inflation easing gradually across most economies. The Bank projects global GDP growth of 2.5% in 2024 and 2.75% in 2025, following 2023's 3% pace. With softer growth this year, inflation rates in most advanced economies are expected to come down slowly, reaching central bank targets in 2025.²²

In Canada, the economy has stalled since the middle of 2023 and growth will likely remain close to zero through the first quarter of 2024. Consumers have pulled back their spending in response to higher prices and interest rates, and business investment has contracted. Economic growth is expected to strengthen gradually around the middle of 2024. In the second half of 2024, household spending will likely pick up and exports and business investment should get a boost from recovering foreign demand. Spending by governments contributes materially to growth through the year. Overall, the Bank forecasts GDP growth of 0.8% in 2024 and 2.4% in 2025, roughly unchanged from its October projection.²³

CPI inflation ended the year at 3.4%. Shelter costs remain the biggest contributor to above-target inflation. The Bank expects inflation to remain close to 3% during the first half of this year before gradually easing, returning to the 2% target in 2025. While the slowdown in demand is reducing price pressures in a broader number of CPI components and corporate pricing behaviour continues to normalize, core measures of inflation are not showing sustained declines.²⁴

²⁰ 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.

²¹ Source: IIROC (excluding intentional crosses, includes all Canadian equities).

²² Source: Extracted from the Bank of Canada press release, January 24, 2024

²³ Source: Extracted from the Bank of Canada press release, January 24, 2024

²⁴ Source: Extracted from the Bank of Canada press release, January 24, 2024

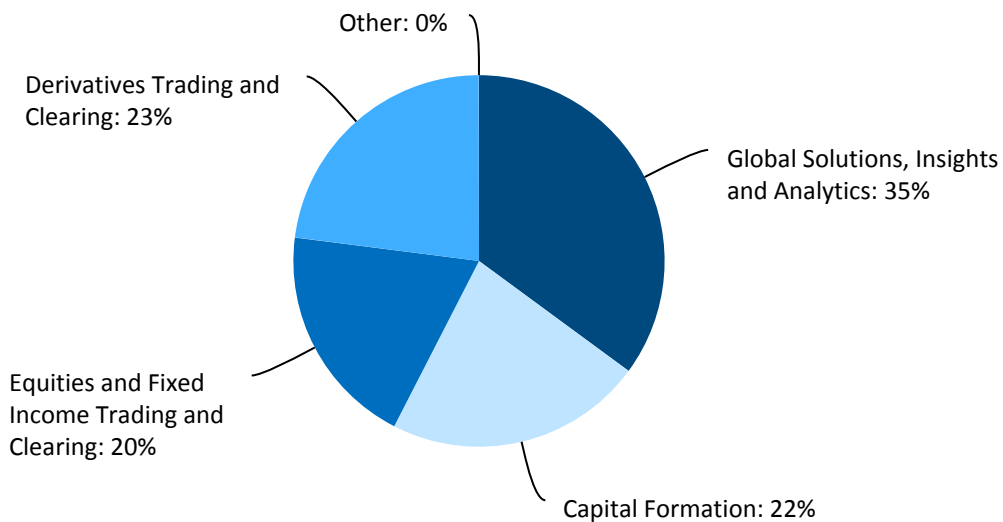
OUR BUSINESS

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. TMX Trayport
 - iv. TMX VettaFi (acquired January 2, 2024)

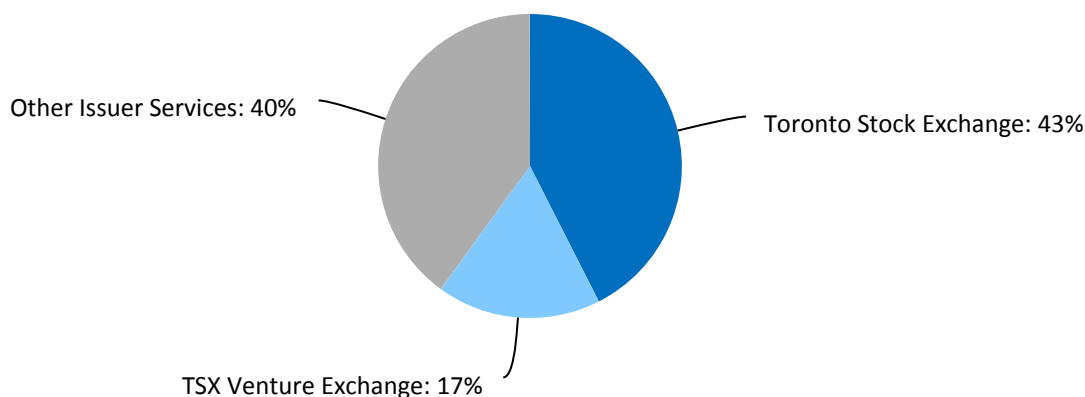
For key statistics related to each business above, please see **Results of Operations**.

TMX 2023 Revenue: \$1,194.1 million



Capital Formation

Year Ended December 31, 2023 Capital Formation revenue of \$268.2 million



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 TSX and 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 2023, we welcomed 221 new listings, of which 19 were innovation companies and 18 were international (non-Canadian) companies. Issuers listed on TSX and TSXV raised a combined \$21.5 billion in 2023 (\$17.2 billion on TSX and \$4.3 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, supporting over 2,000 equity and debt issuers and private companies with corporate trust, transfer agent, registrar and registered plan services of which some subscribe to multiple services. In August 2021, we acquired AST Canada.

Strategy

Our strategic objectives in the Capital Formation business (excluding TSX Trust) to deliver long term Strong Growth²⁵ as laid out under *Purpose, Mission, Client First Vision, Sustainable Growth and Financial Objectives - Financial Objectives* focus on:

- **Global expansion:** leverage our global presence and channel partners to attract international listings across all sectors
- **Sector development:** accelerate growth and deploy development strategies in targeted sectors to support the growth of new and emerging sectors
- **Market modernization:** accelerate our policy development, regulatory advocacy and thought leadership efforts to stimulate investment in the public markets, ease regulatory burdens, transform user experience and deliver operational excellence
- **Product expansion:** build product and services offerings to increase share-of-wallet
- **New markets:** expand addressable market to support the needs of private and public companies
 - 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, our objective to deliver long term High Growth²⁶ encompasses the following:

- **Growth from the core:** accelerated growth of our transfer agent and corporate trust services with the acquisition of AST Canada, product penetration with our expanded product offering and best-in-class capabilities
- **Automation and integration:** transform business operations through automation and integration to achieve top client retention and experience
- **Sales and strategic partnerships:** unlock scale and accelerate growth and contribution to the total portfolio through our dedicated sales force, technological capabilities and execution of strategic partnerships
- **Private markets:** continue to expand the service offering to meet the unique needs of the market.

²⁵ Strong Growth is defined as 5% plus revenue CAGR

²⁶ High Growth is defined as high-single to double digit revenue CAGR

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 Fees²⁷

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 \$3.8 trillion at the end of 2022 to \$4.2 trillion at the end of 2023. The market capitalization of issuers listed on TSXV, including NEX, increased from \$70.7 billion at the end of 2022 to \$71.0 billion at the end of 2023. These increases in market capitalization for TSX and TSXV were attributable to issuers who were already at the maximum fee in 2023, while the TSX and TSXV market capitalization for issuers below the maximum fee decreased in 2023 compared with 2022. We estimate that the change in the total market capitalization on TSX and TSXV along with the price changes (see discussion under *Initiatives and Accomplishments - Capital Formation - Pricing*) should result in a net increase in sustaining listing fee revenue of approximately \$0.4 million in 2024.

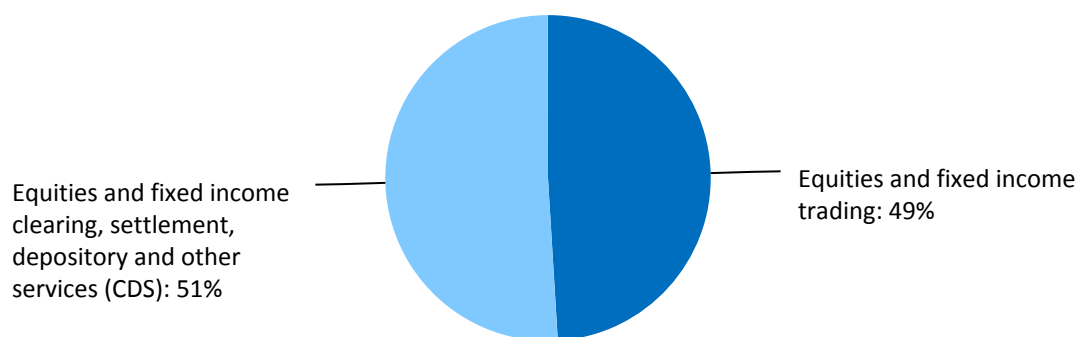
Other Services

TSX Trust has over 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 600 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. 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, 2023, a 25 basis points movement in the interest rate corresponds to approximately \$2.0 million of revenue in TSX Trust (previously \$2.5 million). Actual revenue for future periods will also depend on activity in those quarters.

²⁷ 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, 2023
Equities and Fixed Income Trading and Clearing revenue of \$232.6 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 (IDBB) that specializes in the Canadian fixed income market, brokering products that include Government of Canada, Provincial, Corporate and Canadian Mortgage Bonds along with Repurchase Agreements (repos) and Swaps. Shorcan's core clients are broker-dealers, all of whom are registered with the Canadian Investment Regulatory Organization (CIRO), and many that are also CDCC members. Shorcan operates a hybrid trading platform allowing clients access to trade via voice lines or electronically; the buy-side does not participate.

Strategy

Our strong competitive position in the equities and fixed income trading business complements our portfolio as we look to deliver and maintain long term Market Growth²⁸ in these businesses. Our strategic focus is on:

Equities Trading

- Building innovative and premium market solutions focused on solving client needs in Canada and around the world
- Continuing to maintain leading market share in Canadian Trading

Fixed income Trading

- Maintaining market leading position in Canada trading

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 instrument, duration, size and execution method (voice or 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

²⁸ Market Growth is defined as revenue CAGR in line with GDP

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. Scripted testing with participants completed in January 2023 and unscripted testing was largely completed in July 2023. Following regulatory communication to shorten the standard settlement cycle from two days (T+2) to one day (T+1), a decision was made to defer the implementation of the Post Trade Modernization project until after the industry transition to T+1 which is currently expected to be in May 2024²⁹. Under this strategy, TMX Group will continue to invest in modernizing core technology and developing growth opportunities for the business to deliver long term Market Growth³⁰ under these main focuses:

- **Clearing and depository:** Develop and migrate to an advanced clearing, settlement, and risk management platform, to deliver enhanced client experiences at higher efficiency (see **INITIATIVES AND ACCOMPLISHMENTS - Update on Modernization of CDS Clearing Platform**).
- **Global connectivity solutions:** Support 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.
- **Collateral and funding:** Support our clients to do more business by making more efficient use of their capital with new collateral management services.

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.

²⁹ For additional information, see discussion under the heading "Initiatives and Accomplishments - Update on Modernization of CDS Clearing Platform".

³⁰ Market Growth is defined as revenue CAGR in line with GDP.

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

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). Rebates are paid on a pro rata basis to participants in accordance with the fees paid by such participants for these services.

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 proposed 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 proposed to modify the effective date of the proposed rebate elimination to coincide with the Modernization of Clearing Platforms launch which is now expected to be in Q4/24 (See **Initiatives and Accomplishments - Update on Modernization of CDS Clearing Platform**).

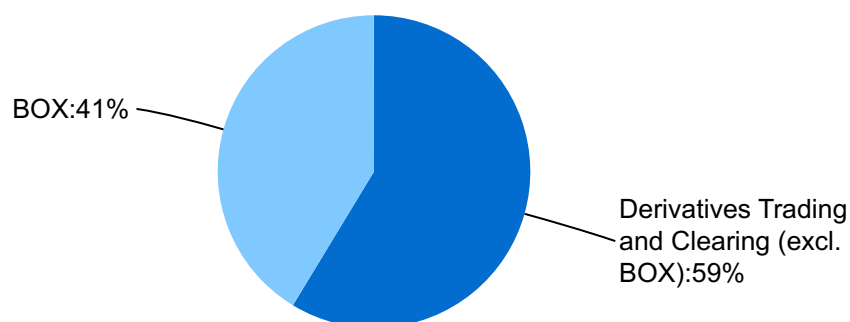
The elimination of the rebates is proposed to provide a sustainable fee model for CDS and a low, clear, predictable, fair and reasonable fee structure for Participants that incentivizes continued investment in operational resilience and innovation.

For the five-year period from 2019 to 2023 inclusive, CDS rebated an average of approximately \$15.6 million annually. In 2023, CDS rebated \$17.8 million reflecting increased volumes.

The amended proposal was subject to public comment and regulatory approval, but was placed on hold by CDS in 2022 until further progress had been made towards the implementation date of the new system as part of the CDS Modernization initiative. Efforts to progress the proposal commenced in 2023.

Derivatives Trading and Clearing

Year ended December 31, 2023
Derivatives Trading and Clearing revenue of \$274.2 million



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, 2023, MX held approximately 47.9% economic interest and 51.4% voting interest in BOX. Effective January 3, 2022, TMX Group obtained voting control over BOX and commenced consolidating the entity. Non-controlling interests ("NCI") related to BOX (52.1%), including net income and equity attributable to NCI are reported in our financial statements.

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 2023, approximately 49% of MX's volume was represented by five 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), the 2-Year Government of Canada Bond Futures contract (CGZ) and the Three-Months CORRA Futures contract (CRA) – with the balance largely represented by our equity and ETF options market, as well as the S&P/TSX 60 Standard Futures contract (SXF).

BOX

BOX (BOX Options Market LLC, and when the context requires, BOX includes its parent BOX Holdings Group LLC) is an equity options market and is one of a number of equity options markets in the U.S. All options traded on BOX are cleared through The Options Clearing Corporation.

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 its exchange-traded derivatives market. MX's Regulatory Division oversees the regulatory functions. It is responsible for the regulation of MX's markets and trading participants.

The Regulatory Division operates as a separate and independent unit of MX. It is subject to the oversight of the MX Self-Regulatory Oversight Committee of MX's board of directors (SROC). The SROC, which is appointed by the Board of Directors of MX, must be composed of at least two-thirds independent members. 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 redistributed to MX's approved participants and any shortfall must be made up by a special assessment by MX's participants or by MX, in both cases upon recommendation of the SROC to the MX board. 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

Growth drivers in our Derivatives Trading and Clearing segment contributing to the business unit's long term High Growth³¹ revenue objective are as follows:

MX

- 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

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 bulge bracket clearing brokers while accessing new distribution networks and reaching new clients
- Upgrading operational, risk and regulatory compliance capabilities
- Complementing the Derivatives ecosystem with an expanded REPO facility

Revenue Description

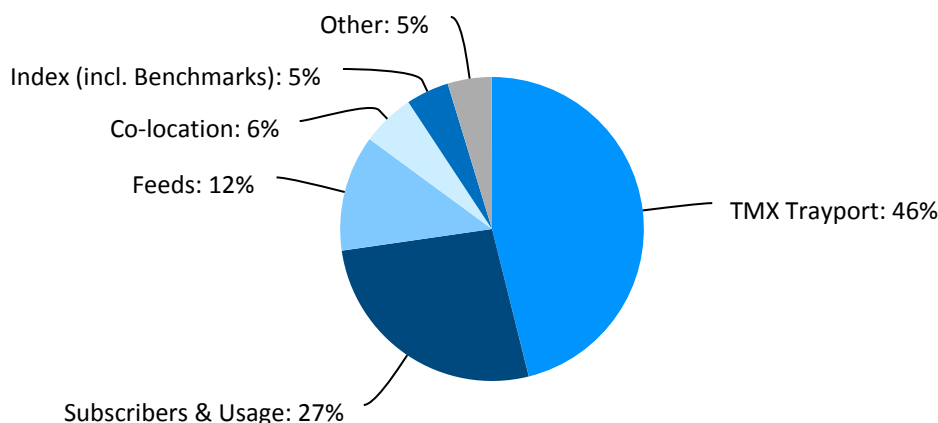
Those who trade on MX are charged fees for buying and selling derivatives products on a per transaction basis, determined by factors that include contract type and volume of contracts traded. Since MX trading fee rates are charged on each transaction based on the number of contracts included in each 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. A number of 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.

³¹ High Growth is defined as high-single to double digit revenue CAGR

Global Solutions, Insights, and Analytics (GSIA)

Year ended December 31, 2023
GSIA revenue \$419.0 million



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 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 July 2022 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, including the expanded data sets from Wall Street Horizon, Inc. (a U.S.-based company that provides traders, portfolio managers, academics and others an ever-expanding set of forward-looking and historical corporate event datasets), 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 indices³². 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, while also providing MX with the rights to list futures and options on the S&P/TSX indices. We fully own data subscription revenue.

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, 2023, we have 13 clients in the program including the six largest Canadian banks.

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.

Benchmarks and Indices

Term CORRA

In September 2023, the Term CORRA benchmark was launched. Term CORRA, a forward looking term rate, replaces CDOR in loans and associated derivative hedges and is derived from transactions and executable bids and offers from CORRA interest rate futures traded on MX. Term CORRA is produced and managed by CanDeal Benchmark Administration Services Inc. as the benchmark administrator and with TMX Datalinx providing the licensing and distribution capabilities. Since the launch, we have onboarded 36 clients including major Canadian banks, global financial institutions and corporate clients.

³² 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. Dow Jones, S&P, their respective affiliates and TSX do not sponsor, endorse, sell or promote any products based on the Index and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions or interruptions of the Index or any data related thereto.

New Index and Digital Distribution capabilities

With the acquisition of VettaFi (acquired January 2, 2024), new global index products were added to our offerings, including in Energy MLP, thematic, factor-based indices, notably Robotics and AI. The broadened product scope was aimed to increase our outreach in both asset-based revenue and data subscription revenue.

Enhanced Content

TMX Datalinx launched TMX ESG Data Hub with content sets in support of ESG integration in investment decision-making processes. This includes tracking climate action plans, quantifying impact, screening companies and controversies, following news and events and performing corporate peer analysis. An initial pipeline is in progress, consisting of investment banks, asset managers, asset owners, and pension consultants.

TMX Trayport

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

TMX VettaFi

TMX VettaFi (acquired January 2, 2024) is a US-based provider of indexing, data analytics, industry leading conferences, and digital distribution services to ETF issuers and fund managers. Through its websites and analytics platform it engages millions of investors annually - empowering and educating the modern financial advisor and institutional investor.

Strategy

Continued execution of our strategy positions TMX Datalinx for Strong Growth³³ in our long term revenue objectives.

TMX Datalinx

Our core strategy consists of:

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

The acceleration of our strategy consists of the following:

- **Protect and grow our core business:** continuously invest in client driven new content and product innovation to protect and grow our core data offering and enhance our pricing model
- **Extend and transform our product offering:**
 - Expand our asset class and geographic coverage in benchmarks and indices

³³ Strong Growth is defined as 5% plus revenue CAGR

- Expand our current corporate and reference data products through organic builds, partnerships and acquisitions
- Continue to add complementary, unique and enhanced content

TMX Trayport

TMX Trayport continues to focus on capitalizing on macro themes in the global energy markets that present growth opportunities in both new markets and in new services to existing clients, and accelerating revenue generation potential to target High Growth³⁴ in our long term revenue objectives.

- **Expand product offering**
 - Enhance our core market offering through continuous innovation and investment, with a focus on performance, reliability and security
 - Bolster data driven trading to add value through data, advanced visualization and artificial intelligence
- **Expand into new asset classes and geographies through:**
 - Digitalization of voice brokered markets
 - Capturing opportunities driven by the deregulation and changing dynamics of global energy markets along with increased demand for new trading products driven by the energy transition

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.

³⁴ High Growth is defined as high-single to double digit revenue CAGR

TMX Trayport

TMX 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 2023, approximately 50% of our GSIA (excluding TMX Trayport) revenue was billed in U.S. dollars, and approximately 90% of our TMX Trayport revenue was billed in British Pound Sterling. For more information regarding foreign currency risk, see **Financial Risk Management - Market Risk - Foreign Currency Risk**.

TMX VettaFi

Index licensing revenues are generally based on a percentage of assets under management within the products (exchange traded funds (ETFs), exchange traded notes (ETNs), mutual funds, separately managed accounts) linked to TMX VettaFi indices. Other indexing clients pay a fixed monthly subscription fee to access index data (index levels and constituent data).

Digital distribution and analytics revenue are primarily subscription-based and customers are billed on a monthly basis, with the term of the contracts varying from customer to customer. Event revenues are recognized as the service is provided. TMX VettaFi revenues are billed in U.S. dollars. For more information regarding foreign currency risk, see **Financial Risk Management - Market Risk - Foreign Currency Risk**.

RESULTS OF OPERATIONS

Non-GAAP Measures

Adjusted net income is a non-GAAP measure³⁵, and adjusted earnings per share, adjusted diluted earnings per share, and adjusted earnings per share CAGR are non-GAAP ratios³⁶, 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 attributable to equity holders of TMX Group and Adjusted Earnings Per Share Reconciliation for 2023 and 2022". We present adjusted earnings before interest, taxes, depreciation and amortization for VettaFi to indicate ongoing financial performance from period to period, exclusive of management fees to parent company of VettaFi, transaction-related costs related to ROBO Global and EQM, and other expenses.

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 attributable to equity holders of TMX Group and Adjusted Earnings Per Share Reconciliation for 2023 and 2022". 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".

Similarly, we present the dividend payout ratio based on dividends paid divided by adjusted earnings per share as a measure of TMX Group's ability to make dividend payments, exclusive of a number of adjustments as outlined under the heading "Adjusted Net Income attributable to equity holders of TMX Group and Adjusted Earnings Per Share Reconciliation for 2023 and 2022".

Debt to adjusted EBITDA ratio is a non-GAAP measure defined as total long term debt and debt maturing within one year divided by adjusted EBITDA. Adjusted EBITDA is calculated as net income excluding interest expense, income tax expense, depreciation and amortization, transaction related costs, integration costs, one-time income (loss), and other significant items that are not reflective of TMX Group's underlying business operations.

³⁵ As defined in National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure.

³⁶ As defined in National Instrument 52-112 Non-GAAP and Other Financial Measures Disclosure.

Year ended December 31, 2023 (2023) Compared with the year ended December 31, 2022 (2022)³⁷

The information below reflects the financial statements of TMX Group for 2023 compared with 2022.

(in millions of dollars, except per share amounts)	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Revenue	\$1,194.1	\$1,114.9	\$79.2	7%
Operating expenses	654.1	592.1	62.0	10%
Income from operations	540.0	522.8	17.2	3%
Net income attributable to equity holders of TMX Group	356.0	542.7	(186.7)	(34)%
Adjusted net income attributable to equity holders of TMX Group ^{38,39}	407.8	399.1	8.7	2%
Earnings per share attributable to equity holders of TMX Group				
Basic	1.28	1.95	(0.67)	(34)%
Diluted	1.28	1.94	(0.66)	(34)%
Adjusted Earnings per share attributable to equity holders of TMX Group ^{40,41}				
Basic	1.47	1.43	0.04	3%
Diluted	1.46	1.43	0.03	2%
Cash flows from operating activities	524.9	444.1	80.8	18%

Net Income attributable to equity holders of TMX Group and Earnings per Share

Net income attributable to equity holders of TMX Group in 2023 was \$356.0 million, or \$1.28 per common share on a basic and diluted basis, compared with \$542.7 million, or \$1.95 per common share on a basic and \$1.94 on a diluted basis for 2022. The decrease in net income attributable to equity holders of TMX Group is largely due to a non-cash gain of \$177.9 million being recognized in Q1/22 resulting from the remeasurement of our interest in BOX upon acquisition of voting control and a decrease of \$20.4 million in income tax expense in 2022 from the reversal of a prior year tax provision, somewhat offsetting these decreases was an increase in income from operations of \$17.2 million. The increase in income from operations from 2022 to 2023 was driven by an increase in revenue of \$79.2 million, reflecting higher revenue from Global Solutions, Insights and Analytics, TSX Trust, Derivatives Trading and Clearing (excl. BOX), and CDS, partially offset by lower Listing fees, Equity and Fixed Income trading, and BOX revenue. The revenue increase also included \$7.3 million related to WSH, and \$0.2 million for SigmaLogic. There was also an increase in operating expenses of \$62.0 million, which included \$13.4 million of expenses related to VettaFi, SigmaLogic, and

³⁷ TMX Group completed a five-for-one split of its common shares outstanding (the Stock Split) effective at the close of business on June 13, 2023. All common share numbers and per share amounts in this MD&A, including comparative figures, have been adjusted to reflect the Stock Split.

³⁸ Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".

³⁹ Reflects an adjustment increasing the income tax effect for the 1H/23 by \$1.4 million.

⁴⁰ Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

⁴¹ Reflects an adjustment increasing the income tax effect for the 1H/23 by \$1.4 million.

WSH, of which approximately \$4.1 million related to acquisition and related costs for VettaFi, SigmaLogic, and WSH, \$1.9 million related to amortization of acquired intangibles for WSH, and \$0.2 million related to WSH integration costs. The increase from 2022 to 2023 also included \$10.1 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC⁴², an increase of approximately \$5.7 million related to strategic re-alignment⁴³, as well as higher expenses related to higher headcount and payroll costs, employee performance incentive plan costs, increased IT operating costs, revenue related expenses and legal fees.

The increase in earnings per share was also partially attributable to a decrease in the number of weighted average common shares outstanding from 2022 to 2023, as well as lower net finance costs.

Adjusted Net Income⁴⁴ attributable to equity holders of TMX Group and Adjusted Earnings per Share⁴⁵ Reconciliation for 2023 and 2022

The following tables present reconciliations of net income attributable to equity holders of TMX Group to adjusted net income attributable to equity holders of TMX Group 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 2022 and 2023 related to the 2012 Maple transaction (TSX, TSXV, MX, CDS, Alpha, Shorcan), TSX Trust, TMX Trayport (including VisoTech and Tradesignal), AST Canada, and BOX, and the amortization of intangibles related to WSH in 2023. These costs are a component of *Depreciation and amortization expenses*.
2. Acquisition and related costs in 2022 and 2023 related to VettaFi (equity-accounted on January 9, 2023 prior to the acquisition of control on January 2, 2024), SigmaLogic (equity-accounted prior to the acquisition of control on February 16, 2023 and divested on April 21, 2023) and WSH (acquired November 9, 2022), 2022 includes acquisition related costs for the equity investment in Ventriks (June 15, 2022). These costs are included in *Selling, general and administration* and *Net Finance Costs*.
3. Gain resulting from the sale of 100% of our interest in SigmaLogic to VettaFi (effective April 21, 2023), net of divestiture costs in 2023. This gain is included in *Other Income* while the costs are included in *Selling, general and administration*.
4. Fair value gain on contingent consideration, reflecting a reduction in the earn-out liability assumed as part of the WSH acquisition in 2023. This gain is included in *Net Finance Costs*.
5. Integration costs related to integrating the WSH acquisition in 2022 and 2023. 2022 includes integration costs related to the AST Canada acquisition. These costs are included in *Selling, general and administration*, *Depreciation and amortization*, *Compensation and benefits*, and *Information and trading systems*.
6. Strategic re-alignment expenses related to organizational changes in Q4/23 are primarily included in *Compensation and benefits* in 2023.
7. Gain resulting from the remeasurement of our interest in BOX upon acquisition of voting control (effective January 3, 2022) in 2022. This gain is included in *Other Income*.
8. A decrease in deferred income tax liabilities which decreased *income tax expenses* in 2022 relating to a decrease in the Pennsylvania and Nebraska future income tax rates.

⁴² BOX Exchange LLC is a national securities exchange registered with the Securities and Exchange Commission, and is responsible for regulating and monitoring activities of BOX Options Market LLC, to ensure compliance with BOX Exchange rules and U.S. federal securities laws. TMX has a 40% equity and a 20% voting interest in BOX Exchange LLC.

⁴³ For additional information, see discussion under the heading "Initiatives and Accomplishments - Strategic Re-Alignment".

⁴⁴ Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".

⁴⁵ Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures".

9. In 2022, we reversed a prior year tax provision resulting in a decrease to income tax expense.

	Pre-tax		Tax		After-tax			
(in millions of dollars) (unaudited)	2023	2022	2023	2022	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Net income attributable to equity holders of TMX Group					\$356.0	\$542.7	\$(186.7)	(34)%
Adjustments related to:								
Amortization of intangibles related to acquisitions ^{46,47}	60.4	57.7	18.1	14.2	42.3	43.5	(1.2)	(3)%
Acquisition and related costs ⁴⁸	9.0	1.8	—	—	9.0	1.8	7.2	400%
Integration costs ⁴⁹	0.3	13.7	0.1	3.6	0.2	10.1	(9.9)	(98)%
Gain on sale of SigmaLogic, net of divestiture costs ⁵⁰	(1.2)	—	0.2	—	(1.0)	—	(1.0)	n/a
Fair value gain on contingent consideration ⁵¹	(2.8)	—	—	—	(2.8)	—	(2.8)	n/a
Gain on BOX ⁵²	—	(177.9)	—	—	—	(177.9)	177.9	(100)%
Reversal of a prior year tax provision ⁵³	—	—	—	20.4	—	(20.4)	20.4	(100)%
Strategic re-alignment costs ⁵⁴	5.7	—	1.5	—	4.2	—	4.2	n/a
Change in deferred income tax liabilities relating to changes in future tax rates ⁵⁵	—	—	—	0.7	—	(0.7)	0.7	(100)%
Adjusted net income attributable to equity holders of TMX Group ^{56,57}					\$407.8	\$399.1	8.7	2%

⁴⁶ Includes amortization expense of acquired intangibles including BOX, AST Canada, and Tradesignal in 2022 and 2023, and WSH in 2023.

⁴⁷ Reflects an adjustment increasing the income tax effect for the 1H/23 by \$1.4 million.

⁴⁸ 2022 and 2023 includes transaction costs for VettaFi (equity-accounted January 9, 2023 prior to the acquisition of control January 2, 2024), SigmaLogic (equity-accounted prior to the acquisition of control in February 16, 2023 and divested April 21, 2023) and WSH (acquired November 9, 2022). 2022 also includes acquisition related costs for the equity investment in Ventriks (June 15, 2022). See Initiatives and Accomplishments for more details.

⁴⁹ 2022 and 2023 includes costs related to the integration of WSH (acquired November 9, 2022). 2022 includes costs related to the integration of AST Canada (acquired August 12, 2021).

⁵⁰ Gain resulting from the sale of SigmaLogic (effective April 21, 2023). See Initiatives and Accomplishments - GSIA - VettaFi Acquisition for more details.

⁵¹ For additional information, see discussion under the heading "Additional Information - Net Finance Costs".

⁵² Gain resulting from the remeasurement of our interest in BOX upon acquisition of voting control (effective January 3, 2022), in 2022

⁵³ Relates to a prior year tax reserve no longer required.

⁵⁴ For additional information, see discussion under the heading "Initiatives and Accomplishments - Strategic Re-Alignment".

⁵⁵ 2022 includes a decrease in deferred income tax liabilities due to future reductions in income tax rates in Pennsylvania and Nebraska.

⁵⁶ Adjusted net income is a non-GAAP measure, see discussion under the heading "Non-GAAP Measures".

⁵⁷ The reconciliation for Adjusted Net Income in 2023 is presented without a rounding adjustment to ensure accuracy.

Adjusted net income attributable to equity holders of TMX Group increased by 2% from \$399.1 million in 2022 to \$407.8 million in 2023 largely driven by an increase in income from operations and lower net finance costs, partially offset by higher income tax expense.

(unaudited)	2023		2022	
	Basic	Diluted	Basic	Diluted
Earnings per share attributable to equity holders of TMX Group	\$1.28	\$1.28	\$1.95	\$1.94
Adjustments related to:				
Amortization of intangibles related to acquisitions ⁵⁸	0.15	0.15	0.16	0.16
Acquisition and related costs ⁵⁹	0.03	0.03	0.01	0.01
Fair value gain on contingent consideration ⁶⁰	(0.01)	(0.01)	—	—
Integration costs ⁶¹	—	—	0.04	0.04
Gain on BOX ⁶²	—	—	(0.64)	(0.64)
Strategic re-alignment costs ⁶³	0.02	0.01	—	—
Reversal of prior year tax provision ⁶⁴	—	—	(0.08)	(0.07)
Adjusted earnings per share attributable to equity holders of TMX Group ^{65,66,67}	1.47	1.46	\$1.43	\$1.43
Weighted average number of common shares outstanding	278,154,881	279,043,599	278,729,125	279,971,505

Adjusted diluted earnings per share increased by 3 cents from \$1.43 in 2022 to \$1.46 in 2023 reflecting an increase in income from operations, lower net finance costs, and a decrease in the number of weighted average common shares outstanding from 2022 to 2023, partially offset by higher income tax expense.

⁵⁸ Includes amortization expense of acquired intangibles including BOX, AST Canada, and Tradesignal in 2022 and 2023, and WSH in 2023.

⁵⁹ 2022 and 2023 includes transaction costs for VettaFi (equity-accounted January 9, 2023 prior to the acquisition of control January 2, 2024), SigmaLogic (equity-accounted prior to the acquisition of control in February 16, 2023 and divested April 21, 2023) and WSH (acquired November 9, 2022). 2022 also includes acquisition related costs for the equity investment in Ventriks (June 15, 2022). See Initiatives and Accomplishments for more details.

⁶⁰ For additional information, see discussion under the heading "Additional Information - Net Finance Costs".

⁶¹ 2022 and 2023 includes costs related to the integration of WSH (acquired November 9, 2022). 2022 includes costs related to the integration of AST Canada (acquired August 12, 2021).

⁶² Gain resulting from the remeasurement of our interest in BOX upon acquisition of voting control (effective January 3, 2022), in 2022.

⁶³ For additional information, see discussion under the heading "Strategic re-alignment".

⁶⁴ Relates to prior year tax reserve no longer required.

⁶⁵ Adjusted earnings per share is a non-GAAP ratio, see discussion under the heading "Non-GAAP Measures". In 2023, "Integration Costs" and "Gain on Sale of SigmaLogic, Net of Divestiture Costs" were not presented in the reconciliation due to the size of the adjustment being less than a penny. In 2022, "Change in Deferred Income Tax Liabilities Relating to Changes in Future Tax Rates" was not presented in the reconciliation.

⁶⁶ Reflects an adjustment increasing the income tax effect for amortization of acquired intangibles related to acquisitions for the 1H/23 by 1 cent.

⁶⁷ The reconciliations for Diluted adjusted earnings per share in 2023, and Basic and Diluted adjusted earnings per share in 2022 are presented without a rounding adjustment to ensure accuracy.

Revenue

(in millions of dollars)	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Capital Formation	\$268.2	\$261.3	\$6.9	3%
Equities and Fixed Income Trading and Clearing	232.6	232.0	0.6	0%
Derivatives Trading and Clearing	274.2	261.3	12.9	5%
Global Solutions, Insights and Analytics	419.0	360.1	58.9	16%
Other	0.1	0.2	(0.1)	(50)%
	1,194.1	\$1,114.9	\$79.2	7%

Revenue was \$1,194.1 million in 2023 up \$79.2 million or 7% compared with \$1,114.9 million in 2022 attributable to increases in revenue from *Global Solutions, Insights and Analytics, TSX Trust, Derivatives Trading and Clearing (excl. BOX), and CDS*, partially offset by decreases in *Listings, Equities and Fixed Income Trading*, and a \$5.3 million decrease in BOX revenue. The increase in revenue from 2022 to 2023 included \$7.3 million of revenue for WSH, and \$0.2 million of revenue for SigmaLogic (acquired control on February 16, 2023 and divested on April 21, 2023). Excluding revenue from WSH and SigmaLogic, revenue was up 6% in 2023 compared with 2022.

Capital Formation

(in millions of dollars)	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Initial listing fees	\$8.8	\$18.2	\$(9.4)	(52)%
Additional listing fees	71.3	76.9	(5.6)	(7)%
Sustaining listing fees	80.1	80.8	(0.7)	(1)%
Other issuer services	108.0	85.4	22.6	26%
	\$268.2	\$261.3	\$6.9	3%

- *Initial listing fees* in 2023 decreased from 2022 reflecting lower revenue in TSX and TSXV. We recognized *initial listing fees* received in 2022 and 2023 of \$7.8 million in 2023 compared with *initial listing fees* received in 2021 and 2022 of \$17.4 million in 2022.
- Based on *initial listing fees* billed in 2023, the following amounts have been deferred to be recognized in Q1/24, Q2/24, Q3/24 and Q4/24: \$1.6 million, \$1.1 million, \$0.6 million and \$0.1 million respectively. Total *initial listing fees* revenue for future quarters will also depend on listing activity in those quarters.
- *Additional listing fees* in 2023 decreased compared to 2022 reflecting a decrease in both the number of financings and total financing dollars raised on TSX, and a decrease in total financing dollars raised on TSXV. The decrease in *additional listing fee* revenue on TSX primarily reflected a decrease of 9% in the number of transactions billed at

the maximum listing fee of \$250,000 from 2022 to 2023, and a 3% decrease 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 TSX and a decrease on TSXV from 2022 to 2023, reflecting a decrease in the market capitalization of issuers on TSX and TSXV at December 31, 2022 compared with December 31, 2021, somewhat offset by price changes, as well as an increase in total number of listed issuers on TSX.
- *Other issuer services* revenue, which mainly consists of TSX Trust including AST, was higher in 2023 compared to 2022 primarily due to higher net interest income from TSX Trust driven by higher interest rates.

Equities and Fixed Income Trading and Clearing

(in millions of dollars)	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Equities and fixed income trading	\$114.1	\$122.7	\$(8.6)	(7)%
Equities and fixed Income clearing, settlement, depository and other services (CDS)	118.5	109.3	9.2	8%
	\$232.6	\$232.0	\$0.6	0%

- *Equities Trading* revenue decreased in 2023 compared with 2022 driven by lower volumes partially offset by a favourable product mix. The overall volume of securities traded on our equities marketplaces decreased by 18% (123.4 billion securities in 2023 versus 151.4 billion securities in 2022). There were decreases in volumes of 18% on TSX, 16% on TSXV and 28% on Alpha in 2023 compared with 2022.
- There was slightly lower *fixed income trading* revenue from 2022 to 2023 reflecting decreased activity in Government of Canada bonds partially offset by increased REPO activity.
- CDS revenue increased from 2022 to 2023 mainly due to higher interest income on clearing funds which included a year to date re-class of approximately \$0.9 million from *finance income*, higher event management fees, and custodial and eligibility volumes, partially offset by lower exchange trading volumes and international revenue.
- Excluding intentional crosses, for TSX and TSXV listed issues, our combined domestic equities trading market share was approximately 65% in 2023, down 1% from 66% in 2022.⁶⁸ 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 58% in 2023, down 1% from 59% in 2022⁶⁹.

⁶⁸ Source: IIROC.

⁶⁹ Source: IIROC.

Derivatives Trading and Clearing

(in millions of dollars)	2023	2022	\$ increase / (decrease)	% increase / (decrease)
Derivatives Trading and Clearing (excl. BOX)	\$161.0	\$142.8	\$18.2	13%
BOX	113.2	118.5	(5.3)	(4)%
	\$274.2	\$261.3	\$12.9	5%

Derivatives Trading and Clearing (excl. BOX)

The increase in revenue in *Derivatives Trading and Clearing (excl. BOX)* was driven by a 13% increase in both MX and CDCC revenue. The MX revenue increase was primarily driven by an increase in volumes from 2022 to 2023 of 15% (172.3 million contracts traded in 2023 versus 150.5 million contracts traded in 2022), a positive impact of the pricing changes which came into effect in January 2023, as well as a \$4.1 million one-time reduction in 2022 related to the Five-Year Government of Canada Bond Futures (CGF) market making termination fees, and a retroactive client billing credit, somewhat offset by an unfavourable product mix. The CDCC revenue increase reflected higher clearing volumes and REPO revenue.

BOX

BOX revenue decreased by \$5.3 million or 4% in 2023 compared to 2022, reflecting lower rate per contract due to unfavourable product mix, partially offset by higher volumes and favourable FX impact of \$3.8 million due to stronger U.S. dollar relative to Canadian dollar. Volumes on BOX were up approximately 14% from 2022 to 2023 (693.2 million contracts traded in 2023 versus 610.5 million contracts traded in 2022), while BOX market share in equity options was 7% in 2023, up 1% from 6% in 2022.

The following table summarizes the BOX volume and the equity option market share since consolidation:

	Q4/23	Q3/23	Q2/23	Q1/23	Q4/22	Q3/22	Q2/22	Q1/22
Volume (million contracts)	201	177	155	160	166	169	127	149
Market Share (equity options)	8%	7%	6%	6%	7%	7%	6%	6%
Revenue (in millions of CAD)	\$31.5	\$28.7	\$25.4	\$27.7	\$27.5	\$30.6	\$27.3	\$33.0
Average CAD-USD FX rate	1.36	1.34	1.34	1.35	1.35	1.31	1.28	1.26
Revenue (in millions of USD)	\$23.1	\$21.4	\$18.9	\$20.5	\$20.4	\$23.4	\$21.4	\$26.1

Global Solutions, Insights and Analytics

(in millions of dollars)	2023	2022	\$ increase	% increase
TMX Trayport	\$193.2	\$157.4	\$35.8	23%
TMX Datalinx including Co-location	225.8	202.7	23.1	11%
	\$419.0	\$360.1	\$58.9	16%

The increase in *Global Solutions, Insights and Analytics (GSIA)* revenue in 2023 compared with 2022 was driven by a 23% increase from TMX Trayport, as well as an 11% increase from TMX Datalinx including Co-location. There was a favourable FX impact from Canadian dollar relative to a stronger U.S. dollar and GBP on TMX Datalinx and TMX Trayport revenue respectively.

TMX Trayport

The following table summarizes the average number of TMX Trayport subscribers over the last eight quarters⁷⁰:

	Q4/23	Q3/23	Q2/23	Q1/23	Q4/22	Q3/22	Q2/22	Q1/22
Trader Subscribers	7,443	7,101	7,030	6,932	6,804	6,615	6,410	6,366
Total Subscribers	33,890	33,031	32,480	31,771	30,472	30,186	30,573	30,475
Revenue (in millions of CAD)	\$50.4	\$49.0	\$47.9	\$45.8	\$40.8	\$37.4	\$38.5	\$40.8
Average CAD-GBP FX rate	1.70	1.69	1.70	1.65	1.62	1.53	1.59	1.68
Revenue (in millions of GBP)	£29.6	£29.0	£28.2	£27.8	£25.2	£24.4	£24.2	£24.3

Total Subscribers means all chargeable licenses of core TMX 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 TMX Trayport revenue.

Revenue from TMX Trayport increased by 23% from 2022 to 2023. In GBP, revenue from TMX Trayport, was £114.6 million (based on CAD-GBP FX rate of 1.69) in 2023, up 17% compared to 2022. The increase in TMX Trayport revenue from 2022 to 2023 was primarily driven by a 9% increase in traders subscribers, annual price adjustments, revenue from data analytics and algorithmic trading products, and a favourable FX impact of \$9.3 million due to a stronger GBP compared to Canadian dollar.

⁷⁰ Prior quarters have been restated to be consistent with current quarter methodology

TMX Datalinx including Co-location

Revenue from TMX Datalinx including Co-location increased by 11% from 2022 to 2023. The 2023 TMX Datalinx revenue included \$7.3 million of revenue for WSH (acquired November 9, 2022), and \$0.2 million of revenue for SigmaLogic (control acquired on February 16, 2023 and divested on April 21, 2023). In addition, there were higher revenues related to increases in data feeds, co-location, benchmark and indices, enterprise agreement renewals, and the impact of 2022 and 2023 price adjustments in 2023 compared with 2022. There was a favourable impact of approximately \$3.9 million from Canadian dollar relative to a stronger U.S. dollar in 2023 compared with 2022.

- The average number of professional market data subscriptions for TSX and TSXV products was down 3% in 2023 compared to 2022 (100,865 professional market data subscriptions in 2023 compared with 103,727 in 2022.)
- The average number of MX professional market data subscriptions increased 2% from 2022 to 2023 (20,844 MX professional market data subscriptions in 2023 compared with 20,472 in 2022).

Operating expenses

(in millions of dollars)	2023	2022	\$ increase/ (decrease)	% increase/ (decrease)
Compensation and benefits	321.9	\$274.7	\$47.2	17%
Information and trading systems	92.1	90.9	1.2	1%
Selling, general and administration	127.6	112.7	14.9	13%
Depreciation and amortization	112.5	113.8	(1.3)	(1)%
	\$654.1	\$592.1	\$62.0	10%

Operating expenses in 2023 were \$654.1 million, up \$62.0 million or 10%, from \$592.1 million in 2022. The increase from 2022 to 2023 reflected approximately \$13.4 million of expenses related to VettaFi (equity accounted January 9, 2023, prior to acquisition of control January 2, 2024), SigmaLogic (control acquired February 16, 2023 and divested April 21, 2023), and WSH (acquired November 9, 2022). There were higher expenses of approximately \$4.1 million related to acquisition and related expenses for VettaFi, SigmaLogic, and WSH, \$1.9 million related to amortization of acquired intangibles for WSH, and \$0.2 million related to WSH integration costs. The increase from 2022 to 2023 also included \$10.1 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC, an increase of approximately \$5.7 million related to strategic re-alignment⁷¹, as well as higher expenses related to higher headcount and payroll costs, employee performance incentive plan costs, increased IT operating costs, revenue related expenses and legal fees.

Somewhat offsetting these increases were lower expenses of approximately \$13.7 million related to AST Canada and Ventriks, of which there was approximately \$13.6 million in integration costs related to AST Canada, and \$0.1 million in acquisition and related expenses for Ventriks. Excluding the above mentioned expenses for BOX, VettaFi, SigmaLogic, WSH, AST Canada, Ventriks, and strategic re-alignment, operating expenses increased 8% in 2023 compared with 2022.

Compensation and benefits

(in millions of dollars)	2023	2022	\$ increase	% increase
	\$321.9	\$274.7	\$47.2	17%

- The increase in *Compensation and benefits* expenses from 2022 to 2023 reflected an increase of approximately \$6.0 million related to SigmaLogic and WSH, including integration costs related to WSH of \$0.3 million. There was also an increase of approximately \$5.7 million related to strategic re-alignment, as well as higher headcount and payroll costs, including increased employee performance incentive plan costs of approximately \$14.5 million and merit increases of \$9.4 million, and an increase of \$2.9 million in 2023 due to a reclassification of expenses from *Information and trading systems* to *Compensation and benefits* for BOX. In 2022, we incurred integration costs related to AST Canada of \$2.2 million.
- There were 1,803 TMX Group full-time equivalent employees⁷² at December 31, 2023 versus 1,731 employees at December 31, 2022, excluding BOX, reflecting a 4% increase in headcount attributable to investing in the various growth areas of our business.

⁷¹ For additional information, see discussion under the heading "Initiatives and Accomplishments - Strategic Re-Alignment".

⁷² A measure that normalizes the number of full-time and part-time employees into equivalent full-time units based on actual hours of paid work.

Information and trading systems

(in millions of dollars)	2023	2022	\$ increase	% increase
	\$92.1	\$90.9	\$1.2	1%

- The increase in *Information and trading systems* expenses from 2022 to 2023 reflected \$5.2 million higher IT professional services and software related costs, as well as an increase of \$0.5 million related to SigmaLogic and WSH, including integration costs related to WSH of \$0.1 million. Somewhat offsetting these increases were \$3.1 million in integration costs incurred for AST Canada in 2022, and decreases of \$2.9 million in 2023 due to a reclassification of expenses from *Information and trading systems* to *Compensation and benefits* for BOX.

Selling, general and administration

(in millions of dollars)	2023	2022	\$ increase	% increase
	\$127.6	\$112.7	\$14.9	13%

- The increase in *Selling, general and administration* expenses from 2022 to 2023 primarily reflected \$10.1 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC. There were also higher expenses related to VettaFi, SigmaLogic, and WSH of approximately \$5.1 million, including \$4.1 million related to acquisition and related expenses, as well as increased revenue related expenses, legal fees, and facilities costs. Somewhat offsetting these increases was \$3.5 million in integration costs incurred for AST Canada in 2022, as well as \$0.1 million in acquisition related costs for Ventriks.

Depreciation and amortization

(in millions of dollars)	2023	2022	\$ (decrease)	% (decrease)
	\$112.5	\$113.8	\$(1.3)	(1)%

- Depreciation and amortization* expenses decreased in 2023 compared with 2022, primarily due to \$4.9 million in integration costs related to AST Canada incurred in 2022, somewhat offset by \$1.9 million related to the amortization of intangibles for WSH in 2023, and increased amortization on new intangible assets.
- The *Depreciation and amortization* costs in 2023 of \$112.5 million included \$60.4 million, net of NCI, related to amortization of intangible assets related to acquisitions (15 cents per basic and diluted share).
- The *Depreciation and amortization* costs in 2022 of \$113.8 million included \$57.7 million, net of NCI related to amortization of intangible assets related to acquisitions (16 cents per basic and diluted share).

Additional Information

Share of income (loss) from equity-accounted investments

(in millions of dollars)	2023	2022	\$ increase	% increase
	\$0.4	\$(1.3)	\$1.7	131%

- In 2023, we recognized \$0.4 million share of income from equity-accounted investments, compared with a \$1.3 million share of loss from equity-accounted investments in 2022. For 2023, our share of income from equity-accounted investments includes VettaFi⁷³, SigmaLogic⁷⁴, Ventriks, and other equity accounted investments, compared with our share of loss for 2022, which included CanDeal⁷⁵, SigmaLogic and Ventriks.

Other income

(in millions of dollars)	2023	2022	\$ (decrease)	% (decrease)
	\$1.3	177.9	\$(176.6)	(99)%

- In 2023, we recognized a non-cash gain of \$1.3 million resulting from the sale of 100% of our interest in SigmaLogic to VettaFi (effective April 21, 2023) in exchange for additional common shares in VettaFi.
- In 2022, we recognized a non-cash gain of \$177.9 million resulting from the remeasurement of our interest in BOX upon acquisition of voting control (January 3, 2022).

Net finance costs

(in millions of dollars)	2023	2022	\$ (decrease)	% (decrease)
	\$24.3	\$29.1	\$(4.8)	(16)%

- The decrease in net finance costs for 2023 compared to 2022 primarily reflected higher interest income on funds invested of \$14.2 million as a result of higher interest rates, and a \$2.8 million fair value gain on contingent consideration, reflecting a reduction in the earn-out liability assumed as part of the WSH acquisition. These decreases to net finance costs were somewhat offset by higher interest expense on borrowings of \$7.6 million, and higher foreign exchange losses of \$4.7 million mainly due to acquisition and related costs in 2023.

⁷³ Equity-accounted investment as of January 9, 2023.

⁷⁴ Consolidated February 16, 2023 and divested April 21, 2023.

⁷⁵ Effective February 28, 2022, TMX discontinued the application of the equity method of accounting for CanDeal.

Income tax expense and effective tax rate

Income Tax Expense (in millions of dollars)		Effective Tax Rate (%) ⁷⁶	
2023	2022	2023	2022
\$129.2	\$88.5	27%	14%

The effective tax rate excluding below adjustments would have been approximately 27% for 2023 and 26% for 2022. The 1% increase in the effective tax rate was primarily due to an increase in the U.K. corporate income tax rate from 19% to 25% effective April 1, 2023. The items noted below impacted our effective tax rate for 2023 and 2022, but in aggregate had a minimal impact on 2023.

2023

- In 2023, Massachusetts enacted a change in their corporate tax effective 2025. This change resulted in a decrease in net deferred income tax liabilities and a corresponding decrease in income tax expense on intangibles related to acquisitions, and a -0.3% impact on our effective tax rate.
- In 2023, there was decrease in income tax expense due to a prior year tax adjustment related to TMX Trayport which had a -0.2% impact on our effective tax rate.
- In 2023, there were acquisition costs primarily related to VettaFi that are non-deductible for tax purposes which increased income tax expense and had a +0.4% impact on our effective tax rate.
- In 2023, we wrote-down deferred tax assets relating to non-capital losses related to TMX Investor Solutions resulting in an increase to income tax expense and had a +0.3% impact on our effective tax rate.

2022

- In 2022, there was a non-taxable gain resulting from the remeasurement of our interest in BOX upon acquisition of voting control (effective January 3, 2022).
- In 2022, we reversed a prior year tax provision resulting in a decrease to income tax expense of \$20.4 million.

Net income attributable to non-controlling interests

(in millions of dollars)	2023	2022	\$ (decrease)
	\$32.2	\$39.1	\$(6.9)

- The decrease in net income attributable to non-controlling interests (NCI) for 2023 compared to 2022 is primarily due to lower net income in BOX driven by lower revenue and higher operating expenses, including an increase in BOX's estimate of expenses for services provided by BOX Exchange LLC.

⁷⁶ Effective Tax Rate is based on *Income tax expense* divided by *Income before income tax expense less Non-controlling interests*. Effective tax rate, including NCI, calculated from total *Income before Income Tax Expense* was 25% in 2023 and 13% in 2022.

Total equity attributable to equity holders of TMX Group

(in millions of dollars)	As at December 31, 2023	As at December 31, 2022	\$ increase
	\$4,107.6	\$3,987.2	\$120.4

- As at December 31, 2023, there were 276,623,110 common shares issued and outstanding and 4,035,070 options outstanding under the share option plan.
- As at January 30, 2024, there were 276,629,350 common shares issued and outstanding and 4,020,640 options outstanding under the share option plan.
- The increase in *Total equity attributable to equity holders of TMX Group* is primarily due to the inclusion of net income attributable to equity holders of TMX Group of \$356.0 million, proceeds received on the exercise of options of \$16.1 million, less dividend payments to shareholders of TMX Group of \$196.9 million. In addition, 2,795,000 of our common shares were repurchased in 2023 under a normal course issuer bid for \$79.9 million.

Segments

The following information reflects TMX Group's segment results for 2023 compared with 2022.

Certain comparative figures have been reclassified in order to conform with the financial presentation adopted in the current year.

2023

(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	\$ 268.2	\$ 232.6	\$ 274.2	\$ 419.0	\$ 0.1	\$ 1,194.1
Inter-segment revenue	0.2	2.0	—	0.2	(2.4)	—
Total revenue	268.4	234.6	274.2	419.2	(2.3)	1,194.1
Income (loss) from operations	104.8	102.5	147.4	262.9	(77.6)	540.0

2022

(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	\$ 261.3	\$ 232.0	\$ 261.3	\$ 360.1	\$ 0.2	\$ 1,114.9
Inter-segment revenue	0.2	2.1	—	0.3	(2.6)	—
Total revenue	261.5	234.1	261.3	360.4	(2.4)	1,114.9
Income (loss) from operations	96.1	111.7	151.2	231.4	(67.6)	522.8

Income (loss) from operations

The increase in *Income from operations* from *Capital Formation* primarily reflected higher revenue in 2023 compared with 2022 driven by higher net interest income from TSX Trust somewhat offset by lower *additional listing fees* due to a decrease in both the number of financings and total financing dollars raised on TSX, a decrease in total financing dollars raised on TSXV, lower *initial listing fees* reflecting lower revenue in TSX and TSXV, and lower *sustaining listing fees* reflecting a decrease in the market capitalization of issuers on TSX and TSXV at December 31, 2022 compared with December 31, 2021. There were also lower expenses in 2023 compared with 2022.

The decrease in *Income from operations* from *Equities and Fixed Income Trading and Clearing* in 2023 compared with 2022 was driven by higher operating expenses. There was also slightly higher revenue in 2023 compared with 2022 due to higher CDS revenue mostly offset by lower equity trading volumes.

The decrease in *Income from operations* from *Derivatives Trading and Clearing* primarily reflected higher operating expenses, including \$10.1 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC, and lower revenue of \$5.3 million from BOX in 2023 compared with 2022, somewhat offset by increased revenue from MX and CDCC. The MX revenue increase in 2023 included a \$4.1 million one-time reduction in 2022 related to the Five-Year Government of Canada Bond Futures (CGF) market making termination fees, and a retroactive client billing credit, as well as higher trading volumes in 2023, and impact from the pricing change effective January 2023, somewhat offset by an unfavourable product mix.

The increase in *Income from operations* from *Global Solutions, Insights and Analytics* reflected higher revenue from TMX Trayport and TMX Datalinx including Co-location. The increase in TMX Trayport revenue was primarily driven by higher trader subscribers and favourable FX impact from Canadian dollar relative to a stronger GBP. Within TMX Datalinx, 2023 revenue included \$7.3 million of revenue for WSH (acquired November 9, 2022), and \$0.2 million of revenue for SigmaLogic (acquired control on February 16, 2023 and divested on April 21, 2023), as well as higher revenue related to increases in data feeds, co-location, benchmark and indices, enterprise agreement renewals, and favourable FX impact from Canadian dollar relative to a stronger U.S. dollar. There were also favourable impact from pricing changes in both TMX Trayport and TMX Datalinx. The increases were partially offset by higher operating expenses in 2023 compared with 2022.

Other includes *inter-segment* revenue as well as corporate and other costs related to initiatives, not allocated to the operating segments. 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 was higher in 2023 compared to 2022 primarily reflecting an increase in unallocated costs including \$5.7 million related to strategic re-alignment.

LIQUIDITY AND CAPITAL RESOURCES

Summary of Cash Flows

2023 compared with 2022

(in millions of dollars)	2023	2022	\$ increase / (decrease) in cash
Cash flows from operating activities	\$524.9	\$444.1	\$80.8
Cash flows used in financing activities	(309.2)	(292.9)	(16.3)
Cash flows used in investing activities	(289.3)	(41.4)	(247.9)

- In 2023, *Cash flows from operating activities* increased compared with 2022 reflecting higher income from operations (excluding depreciation and amortization), an increase in cash related to trade and other payables, and lower income taxes paid. These increases in cash were partially offset by decreases in cash related to trade and other receivables, and prepaid expenses, as well as a decrease in cash related to other assets and liabilities.
- In 2023, *Cash flows used in financing activities* increased to \$309.2 million from \$292.9 million in 2022. This decrease in cash was largely driven by a \$250.0 million in repayment of debenture related to Series B debentures that matured on October 3, 2023, a decrease in proceeds from exercised options of \$10.5 million, an increase in interest paid of \$10.2 million, an increase in dividends paid to non-controlling interests of \$7.8 million, and an increase in dividends paid to equity holders of \$11.8 million. There were also decreases in cash related to net credit and liquidity facilities drawn of \$13.7 million and an increase in cash used in share repurchases under our normal course issue bid program of \$5.6 million. These decreases in cash were somewhat offset by a net increase in cash from the issuance of Commercial Paper of \$294.2 million.
- In 2023, *Cash flows used in investing activities* increased to \$289.3 million compared with \$41.4 million in 2022. This was largely attributable to a decrease in cash related to the \$234.0 million investment in VettaFi, as well as a decrease of approximately \$61.3 million relating to acquisition of subsidiaries, net of cash acquired, and a decrease in cash related to additions to premises, equipment and intangible assets of \$13.3 million. Partially offsetting these decreases in cash were increases in cash from a decrease in the net purchase of marketable securities of \$39.0 million in 2023 compared with 2022, and an increase in interest received of \$13.5 million.

Summary of Cash Position and Other Matters⁷⁷

Cash, Cash Equivalents and Marketable Securities

(in millions of dollars)	As at December 31, 2023	As at December 31, 2022	\$ increase / (decrease)
Cash and cash equivalents	\$301.1	\$375.7	\$(74.6)
Marketable securities	\$118.5	\$117.4	\$1.1
Cash, cash equivalents and marketable securities	\$419.6	\$493.1	\$(73.5)

We had \$419.6 million of cash, cash equivalents and marketable securities as at December 31, 2023 compared to \$493.1 million at December 31, 2022, reflecting a decrease in cash and cash equivalents, partially offset by an increase in marketable securities. There were cash flows from operating activities of \$524.9 million, net increases in cash from the issuance of Commercial Paper of \$294.2 million, and net credit and liquidity facilities drawn of \$1.6 million. Partially offsetting these increases in cash and cash equivalents were cash outflows for the repayment of debenture of \$250.0 million relating to the Series B debentures that matured on October 3, 2023, cash outflows relating to the acquisition of equity-accounted investments of \$239.8 million, cash outflows for dividends to our shareholders of \$196.9 million, dividends to non-controlling interests of \$33.3 million, additions to premises and equipment and intangible assets of \$65.2 million, repurchases of our shares under a normal course issuer bid of \$79.9 million, and interest paid, net of interest received of \$28.1 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 TMX Group revolving credit facility (the "Credit Agreement"), the Term Credit Facility, and commercial paper program (Commercial Paper Program) (see **LIQUIDITY AND CAPITAL RESOURCES - 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 Term Credit Facility, and the trust indentures governing the Debentures, and by capital maintenance requirements imposed by regulators. At December 31, 2023, there was \$294.2 million in Commercial Paper outstanding.

⁷⁷ The "Summary 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.

Total Assets

(in millions of dollars)	As at December 31, 2023	As at December 31, 2022	\$ increase
	\$64,337.4	\$55,983.1	\$8,354.3

- Our consolidated balance sheet as at December 31, 2023 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 \$8,354.3 million from December 31, 2022 reflected higher amounts received on REPO and higher collateral balances in CDCC, partially offset by lower collateral balances in CDS at December 31, 2023.

Defined Benefits Pension Plan

Based on the most recent actuarial valuations (as at May 31, 2022, December 31, 2022 or January 1, 2023 depending on the plan), we estimate a net deficit of approximately \$0.3 million. We contributed \$0.7 million in 2023 to fund this deficit as well as the current service cost contribution for the TMX registered pension plan (TMX RPP). The next required tri-annual valuation for the TMX RPP will be as at May 31, 2025 as an off-cycle valuation was completed as at May 31, 2022.

Commercial Paper, Debentures, Credit and Liquidity Facilities

Commercial Paper

(in millions of dollars)	As at December 31, 2023	As at December 31, 2022	\$ increase
	\$294.2	\$—	\$294.2

There was \$294.2 million of Commercial Paper outstanding, including accrued interest, at interest rates ranging from 5.14% – 5.17% under the program at December 31, 2023 reflecting a net increase of \$294.2 million from December 31, 2022. The Commercial Paper Program is fully backstopped by the TMX Group revolving credit facility (see - **LIQUIDITY AND CAPITAL RESOURCES - Revolving Credit Facilities**).

For additional information on our credit facilities, please see Revolving **Credit Facilities** under the heading **LIQUIDITY AND CAPITAL RESOURCES**.

Debentures

As of December 31, 2023, TMX Group had the following Debentures outstanding:

Debenture	Principal Amount (\$ millions)	Coupon	Maturity Date	DBRS Credit Rating
Series D	300.0	2.997% per annum, payable in arrears in equal semi-annual installments	December 11, 2024	AA (low)
Series E	200.0	3.779% per annum, payable in arrears in equal semi-annual installments	June 5, 2028	AA (low)
Series F	250.0	2.016% per annum, payable in arrears in equal semi-annual installments	February 12, 2031	AA (low)

- On October 5, 2023 DBRS Limited (DBRS Morningstar) confirmed the Long-Term Issuer Rating and the Senior Unsecured Debt rating of TMX Group at AA (low), as well as our Commercial Paper (CP) rating at R-1 (middle). On December 13, 2023, following the acquisition announcement for VettaFi, the ratings were reaffirmed, but the trend was changed from Stable to Negative.
- The 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 E and Series F Debentures being redeemed to the date fixed for redemption. If the 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 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, 2023	As at December 31, 2022	\$ increase / (decrease)
Series B - Current Debentures	\$—	\$249.9	\$(249.9)
Series D - Current Debentures	\$299.8	\$299.5	\$0.3
Series E - Non-Current Debentures	\$199.5	\$199.4	\$0.1
Series F - Non-Current Debentures	\$249.0	\$248.9	\$0.1
	\$748.3	\$997.7	\$(249.4)

The series B debentures matured on October 3, 2023. The outstanding amount of \$250.0 million and the accrued interest of \$5.6 million were repaid in full on the maturity date.

Revolving Credit Facilities

On November 27, 2023, TMX Group entered into an amended and restated credit agreement which replaced our existing 2016 credit agreement (as amended between 2016 and 2021). 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 Credit Agreement expires on May 2, 2027.

Under the terms of the Credit Agreement:

- Total Leverage Ratio shall not exceed 4.0:1 (4.5:1 if certain conditions are met). 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.
- Interest Coverage ratio: there is no requirement with respect to the Interest Coverage ratio, unless certain conditions are met (in which case the Interest Coverage Ratio shall be at least 3.5:1). 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;

As at December 31, 2023, all covenants were met under the Credit Agreement governing the TMX Group revolving 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	CORRA Instruments/ SOFR 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
> 3.5 and ≤ 4.0	37.5 bps	87.5 bps	187.5 bps
> 4.0	42.5 bps	112.5 bps	212.5 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 facilities must be cleared to zero at the end of each day.

CDCC maintains a \$33,312.0 million REPO uncommitted facility (\$33,312.0 million at December 31, 2022) 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. The facility would provide liquidity in exchange for securities that have been received, or pledged to, CDCC. On February 24, 2023, CDCC extended this facility to February 23, 2024.

CDCC maintains a \$100.0 million syndicated revolving standby liquidity facility (\$100.0 million at December 31, 2022) 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 24, 2023, CDCC extended this facility to February 23, 2024.

CDCC maintains a \$60.0 million uncommitted Master Call Loan facility to provide overnight liquidity in Canadian dollars or US dollars equivalent to support the settlement. Advances under the facility are secured by collateral in the form of securities that have been received by, or pledged to CDCC. As at December 31, 2023, CDCC had drawn \$12.6 million 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.

CDCC maintains a \$100.0 million foreign currency liquidity facility to provide access to US dollars or Canadian dollars in the event of a Clearing Member default and CDCC is unable to readily settle transactions in US dollars or Canadian dollars while in possession of certain foreign currency equivalents, namely British Pound Sterling, Euros, Hong Kong dollars, or US dollars. The facility renews automatically, and is successively extended on a daily basis until the date on which either party to the agreement provides six months' advance notice to the termination 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.

CDS Clearing maintains a \$5.0 million unsecured overdraft facility and US\$5.5 million overnight facility to support processing and settlement activities of Participants. 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\$1,500 million (December 31, 2022 – US\$1,500.0 million), or Canadian dollar equivalent, that can be drawn in either United States (US) or Canadian currency. On March 21, 2023, CDS Clearing extended the maturity date to March 19, 2024.

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 21, 2023, CDS Clearing extended the maturity date to March 19, 2024.

In March 2023, CDS launched the Reverse Repo Program designed to reduce unsecured commercial bank risk associated with using cash collateral deposits for our New York Link participants. This program mitigates the potential risk of non-default losses by swapping U.S. dollar cash for U.S. Treasury securities overnight and provides diversification for collateral investment options for our participants.

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.

Contractual Obligations

(in millions of dollars)

			December 31, 2023	
	Total	Less than 1 year	Between 1 and 5 years	Greater than 5 years
Participants' tax withholdings*	231.7	231.7	—	—
Accrued interest payable	3.0	3.0	—	—
Other trade and other payables	114.6	114.6	—	—
Contingent consideration	1.0	—	1.0	—
Provisions	3.9	1.7	1.7	0.5
Lease liabilities	95.7	10.6	36.3	48.8
Balances with Participants and Clearing Members*	57,498.8	57,498.8	—	—
Credit and liquidity facilities drawn	12.6	12.6	—	—
Commercial Paper	294.2	294.2	—	—
Debentures	748.3	299.8	200.0	248.5

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

On January 2, 2024, subsequent to the reporting period, we completed the acquisition of the remaining approximately 78% common units in VettaFi⁷⁸. The transaction was financed with total bank debt of US\$963 million (\$1.27 billion) under our Term Credit Facility across US\$600 million (\$794 million), US\$163 million (\$216 million) and US\$200 million (\$265 million) maturing approximately 12, 18 and 24 months from closing, respectively. The weighted average yield of the Term Credit Facility is SOFR + 101.5 bps.

⁷⁸ For additional information, see discussion under the heading "Initiatives and Accomplishments - VettaFi Acquisition".

MANAGING CAPITAL

TMX Group'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;
- Maintaining a credit rating in a range consistent with the Company's current AA (low) and R1 (middle) credit ratings from DBRS Morningstar;
- 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
- Maintaining debt levels below the total leverage ratios as discussed in (a) below.

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 revolving credit facility that require TMX Group to maintain:
 - i. an interest coverage ratio of more than 4.0:1 (and up to 4.5:1 if certain conditions are met), and if certain other conditions are met, to maintain an interest coverage ratio of at least 3.5:1;
- b. In respect of each of TSX and Alpha, 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 TSXV, 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 set out in the amended and restated recognition order issued by the OSC, effective June 15, 2023:
 - 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 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 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 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 million of paid up capital and surplus on the last audited balance sheet for the acceptable institution designation.

As at December 31, 2023 and 2022, TMX Group complied 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 and Banker's Acceptances.

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, 2023, we had restricted cash and cash equivalents of \$231.7 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 (middle) with a Negative trend by DBRS Morningstar.

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 \$300.0 million principal amount Series D Debentures with a 2.997% coupon maturing on December 11, 2024, a \$200.0 million Series E Debentures with a 3.779% coupon maturing on June 5, 2028, and a \$250.0 million Series F Debentures with a 2.016% coupon maturing on February 12, 2031. The Debentures received a credit rating of AA (low) with a Negative trend from DBRS Morningstar.

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 on a quarterly basis and upon maturity.

For the year ended December 31, 2023, unrealized gains of \$1.7 million and realized gains of \$2.1 million related to TRSs, respectively have been reflected in the consolidated income statement (2022 – unrealized gains of \$0.1 million and realized gains of \$2.4 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 \$5,499.5 million as at December 31, 2023, down by \$18.1 million from \$5,517.6 million at December 31, 2022. 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.

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 CGU'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 2022 and 2023.

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 geopolitical conflict, inflationary pressures, labour shortages in some sectors, disruptions to global supply chains, a slowdown on international trade and investment, potential debt crisis in the US, the impact of 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.

At December 31, 2023, management has determined that the BOX CGU may be subject to reasonably possible changes to one or more of the key assumptions used to determine its recoverable amount, which could cause the CGU to become impaired. For the BOX CGU, a decrease of 10.7% in annual cash flows, a decrease of 6.3% in the terminal growth rate, or an increase of 2.8% in the discount rate could cause the recoverable amount to equal the carrying value.

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 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 except per share amounts)	2023	2022	2021
Revenue	\$ 1,194.1	\$ 1,114.9	\$ 980.7
Net income attributable to equity holders of TMX Group	356.0	542.7	338.5
Total Assets (as at December 31)	64,337.4	55,983.1	63,199.4
Non-Current Liabilities (as at December 31)	1,451.0	1,763.3	1,974.3
Earnings per share (attributable to equity holders of TMX Group):			
Basic	1.28	1.95	1.21
Diluted	1.28	1.94	1.20
Cash dividends declared per common share	0.71	0.66	0.60

2023 compared with 2022

(See **RESULTS OF OPERATIONS** and **LIQUIDITY AND CAPITAL RESOURCES** - year ended December 31, 2023 (2023) compared with year ended December 31, 2022 (2022)).

2022 compared with 2021

Revenue

Revenue was 1,114.9 million in 2022 up \$134.2 million or 14% compared with \$980.7 million in 2021 attributable to increases in revenue from *Derivatives Trading and Clearing*, *Global Solutions*, *Insights and Analytics*, as well as *Capital Formation*, partially offset by a decrease in *Equities and Fixed Income Trading and Clearing revenue*. The increase from 2021 to 2022 included \$118.5 million of revenue for BOX (consolidated January 3, 2022), \$33.6 million for AST Canada (acquired August 12, 2021), \$3.4 million for Tradesignal (acquired June 1, 2021), and \$1.0 million for WSH (acquired November 9, 2022). Excluding revenue from BOX, AST Canada, and Tradesignal, revenue was down 2% in 2022 compared with 2021.

Net income attributable to equity holders and Earnings per share

Net income attributable to equity holders of TMX Group in 2022 was \$542.7 million, or \$1.95 per common share on a basic and \$1.94 per common share on a diluted basis, compared with a net income attributable to equity holders of TMX Group of \$338.5 million, or \$1.21 per common share on a basic and \$1.20 on a diluted basis, for 2021. The increase in net income attributable to equity holders of TMX Group reflected a gain on the remeasurement of our interest in BOX upon acquisition of voting control of \$177.9 million in 2022, a decrease in income tax expense of \$20.4 million in 2022 from reversal of a prior year tax provision, and compared to 2021, where we incurred a \$19.6 million income tax expense due to a U.K. corporate income tax rate change, and an increase in income from operations of \$33.3 million (includes 100% income from operations of BOX of which 52.1% relates to non-controlling interests). The increase in income from operations from 2021 to 2022 was driven by an increase in revenue of \$135.9 million, which included \$118.5 million related to BOX (consolidated January 3, 2022), \$33.6 million related to AST Canada (acquired August 12, 2021), \$3.4 million for Tradesignal (acquired June 1, 2021), and \$1.0 million for WSH (acquired November 9, 2022), somewhat offset by an increase in operating expenses of \$102.6 million.

The increase in operating expenses from 2021 to 2022 included approximately \$84.2 million related to AST Canada, BOX, Tradesignal, and WSH, of which \$16.8 million related to amortization of acquired intangibles for AST Canada, BOX and

Tradesignal, \$0.5 million related to AST Canada's transition services agreement (TSA) costs, and \$10.3 million related to AST Canada and WSH integration costs. The increase in operating expenses were partially offset by \$16.4 million lower short term employee performance incentive plan costs, and \$2.0 million lower acquisition related expenses.

The increase in earnings per share was also partially attributable to a decrease in the number of weighted average common shares outstanding from 2021 to 2022.

Total Assets

Our consolidated balance sheet as at December 31, 2022 includes *Balances of Participants and Clearing Members* related to our clearing operations. These balances have equal amounts included within *Total Liabilities*. The decrease in *Total Assets* of \$7,216.3 million from December 31, 2021 reflected lower collateral balances in CDS at December 31, 2022, partially offset by the increased CDCC clearing margin deposit and REPO balances, as well as the inclusion of BOX assets.

Non-Current Liabilities

Non-current liabilities as at December 31, 2022 were \$211.0 million lower than as at December 31, 2021, reflecting lower debt partially offset by higher deferred income tax liabilities and other non-current liabilities.

QUARTERLY FINANCIAL INFORMATION

(in millions of dollars except per share amounts - unaudited)	Dec 31 2023	Sep 30 2023	Jun 30 2023	Mar 31 2023	Dec 31 2022	Sep 30 2022	Jun 30 2022	Mar 31 2022
Capital Formation	\$63.1	\$60.4	\$81.1	\$63.5	\$61.5	\$62.6	\$73.4	\$63.9
Equities and Fixed Income Trading	28.8	25.7	27.4	32.2	28.2	28.3	31.5	34.7
Equities and fixed Income - clearing, settlement, depository and other services (CDS)	30.9	29.2	29.2	29.3	28.8	25.8	27.3	27.4
Derivatives Trading & Clearing	71.3	67.6	63.8	71.5	63.5	62.1	64.1	71.5
Global Solutions, Insights and Analytics	107.4	104.3	104.7	102.6	93.6	87.9	88.8	89.9
Other	—	0.1	—	—	0.1	0.1	—	—
Revenue	301.5	287.3	306.2	299.1	275.7	266.8	285.1	287.4
Operating expenses	173.3	162.0	159.4	159.4	154.8	144.2	147.8	145.3
Income from operations	128.2	125.3	146.8	139.7	120.9	122.6	137.3	142.1
Net income attributable to equity holders of TMX Group	84.4	85.3	97.3	89.0	102.2	81.0	92.1	267.4
Earnings per share ⁷⁹								
Basic	0.31	0.31	0.35	0.32	0.37	0.29	0.33	0.96
Diluted	0.31	0.31	0.35	0.32	0.37	0.29	0.33	0.95

Q4/23 compared with Q4/22

- Revenue was \$301.5 million in Q4/23, up \$25.8 million or 9% from \$275.7 million in Q4/22 reflecting higher revenue across all of our operating segments, other than *Other* revenue. The increase in revenue from Q4/22 to Q4/23 included approximately \$0.8 million related to WSH (acquired November 9, 2022). Excluding WSH, revenue was up 9% in Q4/23 compared to Q4/22.
- Operating expenses in Q4/23 were \$173.3 million, up \$18.5 million or 12% from Q4/22, primarily driven by an increase of approximately \$5.7 million related to strategic re-alignment, as well as \$3.4 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC. The increase from Q4/22 to Q4/23 also included approximately \$5.5 million related to VettaFi (equity invested January 9, 2023, prior to acquisition of control January 2, 2024) and WSH (acquired November 9, 2022), of which \$3.7 million related to acquisition and related expenses for VettaFi and WSH, \$0.4 million related to WSH's amortization of acquired intangibles, and \$0.2 million related to WSH integration costs. There were also higher expenses reflecting higher headcount and payroll costs, employee performance incentive plan costs, as well as increased legal and regulatory fees.
- *Income from operations* increased from Q4/22 to Q4/23 driven by higher revenue, partially offset by higher operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q4/23 was \$84.4 million, or \$0.31 per common share on a basic and \$0.30 on a diluted basis, compared with \$102.2 million, or \$0.37 per common share on a basic and

⁷⁹ Prior quarters' earnings per share have been adjusted to reflect the Stock Split.

diluted basis for Q4/22. The decrease in *net income attributable to equity holders of TMX Group* and earnings per share is largely due to higher income tax expense of \$27.8 million in Q4/23, somewhat offset by an increase in Income from operations of \$7.3 million.

Q4/23 compared with Q3/23

- Revenue was \$301.5 million in Q4/23, up \$14.2 million or 5% from \$287.3 million in Q3/23 reflecting higher revenue across all of our operating segments, other than *Other* revenue.
- Operating expenses in Q4/23 were \$173.3 million, up \$11.3 million or 7% from Q3/23. The increase in costs included an increase of approximately \$5.7 million related to strategic re-alignment in Q4/23, as well as an increase of \$5.1 million related to acquisition and related costs, \$0.3 million related to integration costs, and increased costs related to employee performance incentive plan costs in Q4/23. These were partially offset by a decrease of \$3.3 million related to BOX's estimate of expenses for services provided by BOX Exchange LLC due to a catch-up that took place in Q3/23.
- *Income from operations* increased from Q3/23 to Q4/23 driven by higher revenue, partially offset by higher operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q4/23 was \$84.4 million, or \$0.31 per common share on a basic and \$0.30 on a diluted basis, compared with \$85.3 million, or \$0.31 per common share on a basic and diluted basis for Q3/23. The decrease in *net income attributable to equity holders of TMX Group* was primarily due to higher financing costs in Q4/23.

Q3/23 compared with Q2/23

- Revenue was \$287.3 million in Q3/23, down \$18.9 million or 6% from \$306.2 million in Q2/23 reflecting lower *Capital Formation revenue*, which was primarily due to lower TSX Trust revenue and additional listing fee revenue, as well as lower *Equities and Fixed Income Trading & Clearing revenue*. This was partially offset by higher *Derivatives Trading & Clearing revenue*.
- Operating expenses in Q3/23 were \$162.0 million, up \$2.6 million or 2% from Q2/23, primarily driven by a catch-up of \$6.7 million related to BOX's estimate of increased expenses for services provided by BOX Exchange LLC, as well as increased consulting and legal fees. This was partially offset by lower revenue related expenses, director fees, decreased employee performance incentive plan costs of approximately \$1.0 million, and marketing and sponsorship costs.
- *Income from operations* decreased from Q2/23 to Q3/23 due to lower revenue and higher operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q3/23 was \$85.3 million, or \$0.31 per common share on a basic and diluted basis, compared with \$97.3 million, or \$0.35 per common share on a basic and diluted basis for Q2/23. The decrease in *net income attributable to equity holders of TMX Group* and earnings per share was primarily driven by lower income from operations and partially offset by lower income tax expense and financing costs in Q3/23 compared to Q2/23.

Q2/23 compared with Q1/23

- Revenue was \$306.2 million in Q2/23, up \$7.1 million or 2% from \$299.1 million in Q1/23 reflecting higher *Capital Formation* and *Global Solutions, Insights and Analytics* revenue. The increase in revenue from Q1/23 to Q2/23 included \$0.1 million of revenue for WSH, offset by a \$0.2 million decrease in revenue for SigmaLogic (control acquired February 16, 2023 and divested April 21, 2023). Revenue excluding WSH and SigmaLogic was up 2% in Q2/23 compared with Q1/23.
- Operating expenses in Q2/23 were \$159.4 million, flat from Q1/23, reflecting increased employee performance incentive plan costs of approximately \$2.6 million, director fees, IT operating spend, and marketing and sponsorship costs. These were offset by lower acquisition related costs of \$0.5 million in Q2/23, as well as lower salaries and payroll taxes of approximately \$1.6 million, and \$2.2 million related to a one-time write off of receivables in Q1/23.

- *Income from operations* increased from Q1/23 to Q2/23 due to higher revenue while maintaining a flat expense base.
- *Net income attributable to equity holders of TMX Group* in Q2/23 was \$97.3 million, or 0.35 per common share on a basic and diluted basis, compared with \$89.0 million, or \$0.32 per common share on a basic and diluted basis for Q1/23. The increase in *net income attributable to equity holders of TMX Group* and earnings per share was primarily driven by higher income from operations and lower financing costs, partially offset by higher income tax expense in Q2/23 compared to Q1/23.

Q1/23 compared with Q4/22

- Revenue was \$299.1 million in Q1/23, up \$23.4 million or 8% from \$275.7 million in Q4/22 attributable to increases in *revenue across all our operating segments*. The increase in revenue from Q4/22 to Q1/23 included \$0.7 million of revenue for WSH (acquired November 9, 2022), and \$0.2 million of revenue for SigmaLogic (control acquired February 16, 2023). Revenue excluding WSH and SigmaLogic was up 8% in Q1/23 compared with Q4/22.
- Operating expenses in Q1/23 were \$159.4 million, up \$4.6 million or 3%, from \$154.8 million in Q4/22. The increase in expenses from Q4/22 to Q1/23 was primarily attributable to increased headcount and payroll costs, and short term employee performance incentive plan costs of approximately \$8.9 million, as well as higher expenses related to SigmaLogic, WSH and VettaFi of approximately \$1.1 million. There were also higher revenue related expenses, charitable donations and regulatory filing fees. Partially offsetting these increases were lower IT operating spend, legal fees, and travel and entertainment costs. In addition, we also incurred \$4.0 million in integration costs related to AST Canada in Q4/22. Excluding expenses from SigmaLogic, WSH, AST Canada, and VettaFi, operating expenses increased by 5% in Q1/23 compared with Q4/22.
- *Income from operations* (includes 100% income from operations of BOX (consolidated January 3, 2022) of which 52.1% relates to non-controlling interests) increased from Q4/22 to Q1/23 due to higher revenue, partially offset by higher expenses.
- *Net income attributable to equity holders of TMX Group* in Q1/23 was \$89.0 million, or \$0.32 per common share on a basic and diluted basis, compared with \$102.2 million, or \$0.37 per common share on a basic and diluted basis for Q4/22. The decrease in *net income attributable to equity holders of TMX Group* and earnings per share was primarily driven by lower income tax expense of \$22.3 million in Q4/22 primarily related to a reversal of a prior year tax provision, as well as higher financing costs in Q1/23 compared with Q4/22.

Q4/22 compared with Q3/22

- Revenue was \$275.7 million in Q4/22, up \$8.9 million or 3% from \$266.8 million in Q3/22 attributable to increases in revenue from *Global Solutions, Insights and Analytics, Equities and Fixed Income Trading and Clearing and Derivatives Trading and Clearing* partially offset by *Capital Formation* revenue. The MX & CDCC revenue in Q3/22 reflected a one-time reduction related to the Five-Year Government of Canada Bond Futures (CGF) market making termination fees, and a retroactive client billing credit, amounting to approximately \$4.7 million. The increase in revenue included \$1.0 million related to Wall Street Horizon (acquired November 9, 2022).
- *Operating expenses* in Q4/22 were \$154.8 million, up \$10.6 million or 7% from \$144.2 million in Q3/22. The increase in costs included an increase of \$0.6 million related to integration costs and \$1.4 million in acquisition costs in Q4/22 compared with Q3/22. There were also increased costs related to long term employee performance incentive plan costs, severance, technology professional services and commodity taxes. These were partially offset by lower short term employee performance incentive plan costs, legal fees and charitable donations. In addition, there were lower AST Canada TSA costs of \$0.3 million in Q4/22 compared with Q3/22.
- *Income from operations* decreased from Q3/22 to Q4/22 due to higher expenses, partially offset by higher revenue.
- *Net income attributable to equity holders of TMX Group* in Q4/22 was \$102.2 million, or \$0.37 per common share on a basic and diluted basis, compared with \$81.0 million, or \$0.29 per common share on a basic and diluted basis for Q3/22. The increase in *net income attributable to equity holders of TMX Group* and earnings per share was primarily driven by lower income tax expense in Q4/22, due to a reversal a prior year tax provision, compared to Q3/22 partially offset by lower *income from operations*.

Q3/22 compared with Q2/22

- *Revenue* was \$266.8 million in Q3/22, down \$18.3 million from Q2/22 reflecting lower *Capital Formation revenue*, which was primarily due to lower additional listing fee revenue and *Other issuer services revenue*, *Equities and Fixed Income Trading & Clearing*, *Derivatives Trading & Clearing* revenue excluding BOX, which was primarily driven by a reduction in revenue related to Five-Year Government of Canada Bond Futures (CGF) market making termination fees and a retroactive client billing credit, and lower Global Solutions, Insights and Analytics revenue due to continued decline in GBP compared to CAD. This was partially offset by higher BOX volumes from Q2/22 to Q3/22.
- *Operating expenses* in Q3/22 were \$144.2 million, down \$3.6 million or 2% from \$147.8 million in Q2/22. The decrease in costs included a decrease of \$1.4 million related to AST Canada integration, and \$0.6 million in AST Canada TSA costs in Q3/22 compared with Q2/22. There were also decreases in revenue related expenses, director fees and consulting. These were partially offset by increases in headcount and payroll costs, technology spending, and legal fees.
- *Income from operations* decreased from Q2/22 to Q3/22 due to lower revenue, partially offset by lower operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q3/22 was \$81.0 million, or \$0.29 per common share on a basic and diluted basis, compared with \$92.1 million, or \$0.33 per common share on a basic and diluted basis for Q2/22. The decrease in *net income attributable to equity holders of TMX Group* and earnings per share was driven by lower *income from operations* in Q3/22 compared with Q2/22. In addition, there were decreases in income tax expense of \$0.7 million and \$0.9 million relating to income tax rate changes of Pennsylvania and Nebraska in Q3/22 and historical tax losses in VisoTech not previously recognized in Q2/22 respectively.

Q2/22 compared with Q1/22

- *Revenue* was \$285.1 million in Q2/22, down \$2.3 million from Q1/22 reflecting lower *Equities and Fixed Income Trading*, and *Derivatives Trading & Clearing* revenue, which was primarily driven by lower BOX volumes. This was mostly offset by higher *Capital Formation* revenue, driven by higher *Other issuer services revenue* and additional listing fee revenue from Q1/22 to Q2/22.
- *Operating expenses* in Q2/22 were \$147.8 million, up \$2.5 million or 2% from \$145.3 million in Q1/22. The increase in costs included an increase of \$3.7 million related to AST Canada integration in Q2/22 compared with Q1/22. There were also increases in technology spending, director fees, travel and performance incentives. These were partially offset by lower salaries and payroll taxes of \$3.2 million, lower legal fees and termination allowances.
- *Income from operations* decreased from Q1/22 to Q2/22 due to lower revenue and higher operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q2/22 was \$92.1 million, or \$0.33 per common share on a basic and diluted basis, compared with net income of \$267.4 million, or \$0.96 per common share on a basic and \$0.95 on a diluted basis for Q1/22. The decrease in *net income attributable to equity holders of TMX Group* and earnings per share was driven by a non-cash gain in Q1/22 resulting from the remeasurement of our interest in BOX upon acquisition of voting control (January 2022), as well as lower *income from operations* in Q2/22 compared with Q1/22. In addition, there was a decrease in income tax expense of \$0.9 million in Q2/22 relating to historical tax losses in VisoTech not previously recognized.

Q1/22 compared with Q4/21

- *Revenue* was \$287.4 million in Q1/22, up \$34.7 million or 14% from Q4/21 largely attributable to \$33.0 million of revenue from BOX (consolidated January 2022) which is included in *Derivatives Trading & Clearing*. There were also increases in revenue from *Equities and Fixed Income Trading* and *GSIA*, partially offset by decreases in *Capital Formation* and *CDS*. Excluding BOX, revenue increased 1% from Q4/21 to Q1/22.
- *Operating expenses* in Q1/22 were \$145.3 million, up \$9.1 million or 7% from \$136.2 million in Q4/21. The increase in costs included an increase of \$11.7 million related to BOX and AST Canada in Q1/22 compared with Q4/21. There were also increases in salaries and payroll taxes of \$5.2 million, and higher long term employee performance incentive plan costs of \$3.1 million. Partially offsetting these increases, there were lower short term employee performance incentive plan costs of \$5.8 million, lower information technology spend, lower

severance, lower marketing spend, and decreased consulting fees. Excluding BOX, operating expenses decreased 1% from Q4/21 to Q1/22.

- *Income from operations* increased from Q4/21 to Q1/22 largely due to higher revenue partially offset by higher operating expenses.
- *Net income attributable to equity holders of TMX Group* in Q1/22 was \$267.4 million, or \$0.96 per common share on a basic and \$0.95 on a diluted basis, compared with net income of \$87.9 million, or \$0.31 per common share on a basic and diluted basis for Q4/21. The increase in *net income attributable to equity holders of TMX Group* and earnings per share was driven by a non-cash gain in Q1/22 resulting from the remeasurement of our interest in BOX upon acquisition of voting control (January 2022), as well as higher *income from operations* in Q1/22 compared with Q4/21. In addition, there was a decrease in income tax expense of \$3.9 million in Q4/21 relating to the carryforward of net operating losses related to TMX Atrium Wireless (sold April 2017) that was not previously recognized.

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 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 the 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 Group 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 Senior Management Team, 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.

The Objective Centric Risk Management (“OCRM”) Methodology is for assessing and communicating the risks that could impact achievement of TMX’s strategic and operational objectives, and is consistent with the “Five Lines of Accountability”, as set out below:



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.

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.

Cyber Risk: Our networks and those of our third-party service providers may be vulnerable to risks, including unauthorized access, computer viruses, denial of service attacks, and other security vulnerabilities issues. Remote working has placed a greater emphasis on the availability and capacity of our networks. Attempted cyber attacks continued to increase in 2023 and a successful cyber scam or attack could adversely impact our business.

Health and Safety Risk: The health and safety of our people, our clients and the entire capital markets community has been and continues to be our top priority. We continue to focus on resiliency and demonstrate this through ongoing resiliency testing including our latest participation in a Finance Sector wide Disaster Recovery exercise completed in October 2023. TMX Group remains firmly focused on serving our clients with excellence, providing our markets with continuity, and executing against our global growth strategy.

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.

Strategic Risk: Although we carry out a thorough analysis of the business environment we operate in, it is possible that we may not identify or respond to all material opportunities and threats that may impact our industry.

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.

Integration Risk: Should we fail to integrate acquisitions or material internal projects there is a risk we will not achieve the planned economic benefits.

Advancing Sustainability and Environmental, Social and Governance (ESG) Initiatives Risk: We continue to integrate our ESG objectives and initiatives into TMX Group's core objectives in order to manage and respond to key and emerging sustainability and ESG risks and opportunities on a long and short-term basis. Key sustainability and ESG related risks include those relating to the resilience of our critical business functions, our client concentration within the natural resource and energy-related businesses, cybersecurity and information technology, talent management and climate-related risks.

An additional risk we face is our ability to adapt given the complex evolution and accelerated pace of change in today's society, business environment and disclosure landscape and the resulting impacts on our ability to attract and retain listings. This requires us to proactively identify issues most relevant to TMX Group and engage with stakeholders to respond and plan appropriately to address these risks.

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, financing platforms, and providers of capital

We compete against various North American and international exchanges for listings of Canadian and international companies. Domestically, we currently compete for listings with two other exchanges.

We also compete with platforms and various market participants that offer access to 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 Alpha 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 has become more global. In particular, these competitors 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. CIRO 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 CIRO'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. For Toronto Stock Exchange issues, our market share (including trading on TSX and Alpha) of the total volume traded in Canadian based interlisted issues was approximately 32% in 2023, up 1% from 31% in 2022. 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 63% in 2023, down 3% from 66% in 2022. 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 58% in 2023, down 1% from 59% in 2022.

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 to competitors. 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, 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. We also see a shift in demand towards real-time analytics which requires more sophisticated data and analytics infrastructure in order to maintain our competitive edge.

Further, the majority of our pricing is subject to regulatory oversight, and pricing changes are subject to approval. Pricing changes are dependent on a number of factors including market share, inflationary factors, market capacity, and value to clients.

A portion of the fees charged by Global Solutions, Insights and Analytics for services are priced in U.S. dollars, and may be impacted by foreign exchange movements.

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.

TMX Trayport faces competition from other software companies, trade matching and execution vendors

TMX 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 TMX Trayport looks to enter. Success of these competitor vendors could reduce the number of TMX Trayport venue customers and total subscribers, and limit the ability for TMX Trayport to enter new markets.

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

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

TMX Trayport is indirectly affected by the ongoing war in Ukraine and the resulting implications on European and to a lesser extent global energy markets. The war may negatively affect a number of TMX Trayport's clients, which 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 (including, 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 will continue to be, affected by the Canadian economy, including by commodity prices in the resource sector, interest rates, foreign exchange rates, and broad levels of economic activity. Any prolonged economic downturn could have a significant negative impact on our business. 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. A prolonged economic downturn may have a negative impact on investment performance, which could materially adversely affect the number of issuers and newly 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 in the past, negatively impacted our business. Changes in the economy, including inflation and the political climate could impact our business. In addition, increased uncertainty in Europe and the Middle East, including the wars in Ukraine and Israel, and the possibility of sovereign defaults on debt, may also impact our business, including that of TMX Trayport. 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 and additional financings; 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 TMX Trayport services.

We do not have direct control over these variables. Among other things, these variables depend upon the attractiveness of securities listed and traded on our exchanges and the 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;
- geopolitical conditions, including trade relations between countries, wars, and political unrest;
- 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 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 the context of enterprise capabilities, resources, and the external environment

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

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

Our strategic planning process 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 our clients' evolving needs

Our strategic planning process includes a thorough analysis of the business context in which we operate as well as comprehensive peer and competitive analyses. 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 to 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 be sub-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 strategy effectively because of, among other things, overall economic conditions, increased global or domestic competition, inability to mobilize or co-ordinate internal resources on a timely basis, inability to attract and retain talent with the right capabilities including succession planning, difficulty developing and launching new products and services, and/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 Facilities, Recognition Orders and under our regulatory oversight agreements. While we have established processes and tools for effective and rigorous oversight of our key initiatives, any of these factors could materially adversely affect the successful execution of our strategy.

New business activities may adversely affect income

We may enter into 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 incremental 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 and/or increased risk of intellectual property claims;
- 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 impact 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 key talent, clients, operations, and systems 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 business' talent (including retaining key individuals), clients, operations, and systems; and expand our financial and management controls and our reporting systems and procedures to accommodate the acquired business. 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, 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 process, we may from time to time identify under-performing 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 technology risk which could impede our ability 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 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, TMX 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 seldom experienced information technology failures and delays in the past, but 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. 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. Notably, the emergence of generative AI has escalated the sophistication of and amplified cyber threats. 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 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. increased geopolitical tensions between Canada and other countries) or non-political external events (e.g. extreme weather, pandemics) will affect the provision of our critical services or impede our global growth strategy.

Geopolitical, climate change and other factors could interrupt our critical business functions or impede our global growth strategy

The continuity of our critical business functions or our global growth strategy could be interrupted by geopolitical upheaval, including terrorist, criminal and political, or other types of external disruptions, including pandemics, human error, 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, cyber security 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 talent

Our success depends to a significant extent upon the continued employment and performance of a number of key management talent whose compensation is partially tied to long-term incentive plans that mature over time. The value of this compensation is dependent, in part, upon total shareholder return performance factors, which includes appreciation in our share price. The loss of the services of key talent 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 leadership talent. Macroeconomic factors, including changes in the labour market and work environments present additional risks including: (i) a shortage of qualified talent 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) ability to meet individual employee needs across a diverse, multi-generational workforce. Each of these risks could negatively affect our business and operational results. To mitigate these risks, we are conducting annual talent and succession reviews to identify potential skill gaps and development opportunities, investing in talent assessment and development programs to ensure we retain top talent and develop future leaders, and incorporating flexibility in our programs and policies (where possible) to accommodate diverse employee needs and preferences. Further, we regularly survey all employees globally to gather feedback and better understand evolving employee sentiments.

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 Council to oversee the execution of our ED&I strategy and continue to gather self-disclosed employee demographic information and sentiments regarding workplace inclusion via employee surveys. Our ED&I 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 unintentional/accidental or intentional 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. We conduct mandatory awareness training focusing on health, safety, information security and code of conduct on a regular basis. 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 Lynx, High-Value Payment (LVTs) 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, regulatory and interest rate 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 stem from the following: securities issuance and transfers, corporate actions processing, disbursements, escrows, corporate trust, segregated finance, equity plan solutions, structured finance and segregated accounts reconciliation activities. To mitigate these risks, 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.

The ongoing integration of TSX Trust and AST Trust Company (Canada), exposes TSX Trust to integration risks, including resourcing capacity, increases in associated costs or key client attrition. The materialization of these risks may impact TSX Trust's ability to meet its objectives and the realization of expected synergies. This may also present operational challenges and impact regulator or market confidence in TSX Trust. 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.

TSX Trust is exposed to significant regulatory risk as a Federally Regulated Financial Institution under OSFI and under FINTRAC. While the entity's products and services are inherently lower risk, they are required to document and implement regulatory programs and controls across a range of requirements, which are subject to regulatory reviews, and internal testing and monitoring.

TSX Trust is also exposed to interest rate risk on the funds held and administered by TSX Trust on behalf of its clients. Volatility in interest rates may adversely impact interest revenue earned on the funds.

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 CISO, 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.

Within TMX Group, there is a reliance on shared services to support key business functions and subsidiaries. If these are not adequately resourced and maintained, functionality and deliverables may be impacted. Key strategies, operations and objectives are budgeted, resourced and planned for along with fully tested Business Continuity plans and Disaster Recovery plans to minimize the impact of a disruption.

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 2023, approximately 85% of our trading and related revenue, net of rebates, on TSX and approximately 64% of our trading and related revenue on TSXV were accounted for by the top ten POs on each exchange based on volumes traded.

Approximately 54% of CDS's revenue, net of rebates, in 2023 was accounted for by the top ten customers (excluding securities regulators).

Approximately 81% of MX and CDCC's trading and clearing revenue, net of rebates, in 2023 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 17, 2023.

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.

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) material 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 constating 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 constating 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. We could also be exposed to liability resulting from disputes over the terms of a trade, or claims that a system delay or failure caused a customer to suffer a financial loss. Although we may benefit from certain contractual indemnities and limitations on liabilities, these rights may not be sufficient. In addition, we are exposed to civil liability for misrepresentations in our continuous disclosure documents and public oral statements and for the failure to make timely disclosures of material changes in most Canadian jurisdictions. Investors have a statutory right of action where they acquired or disposed of securities while there was an uncorrected misrepresentation in a document or a public oral statement or while there was a failure to make timely disclosure of a material change. 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 Agreements require us to satisfy and maintain certain financial ratios, 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 Revolving 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 Agreements 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 Agreements 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 Agreements.

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 Agreements 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 Agreements. It will also be a default under the Credit Agreements 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 Agreements were to result in an acceleration of maturity under the Credit Agreements, 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 Agreements 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 Limited (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 5, 2023, DBRS Morningstar, our rating agency, confirmed their AA (low) rating on TMX Group Limited and on our Senior Unsecured Debentures, as well as their R-1 (middle) on our Commercial Paper. On December 13, 2023, following the acquisition announcement for VettaFi, the trend for all ratings was changed from Stable to Negative.

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/R1-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 uncollectible 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.

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.

The Company is also exposed to interest rate risk on the funds held and administered by TSX Trust on behalf of its clients. Volatility in interest rates may adversely impact interest revenue earned on the funds.

Other Market Price Risk – CDS, CDCC, TSX, TSXV and Shorcan

We are exposed to market risk factors from the activities of CDS Clearing, CDCC, TSX, TSXV, 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 honour 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 honour 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 TSXV

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 Pound Sterling (GBP).

Based on 2023 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 \$13.2 million (including 100% of BOX).

Based on 2023 revenue and operating expenses, the approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with GBP on revenue, net of operating expenses, is approximately \$7.3 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, 2023, cash and cash equivalents and trade receivables, net of current liabilities, include U.S.\$12.8 million, which are exposed to changes in the U.S.-Canadian dollar exchange rate (2022 – US\$5.7 million), £0.5 million which are exposed to changes in the GBP-Canadian dollar exchange rate (2022 - £0.2 million), and less than €0.1 million which are exposed to changes in the Euro-Canadian dollar exchange rate (2022 - 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, 2023 is a \$1.8 million decrease or increase in income before income taxes, respectively.

We may employ currency hedging strategies to mitigate foreign currency risk. However, with respect to unhedged exposures, significant moves in exchange rates, specifically a strengthening of the Canadian dollar against the U.S. dollar or GBP can have an adverse effect on the value of our revenue, costs, assets and liabilities denominated in currencies other than the 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.

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

CDCC and CDS both cover the financial exposure arising from their domestic central counterparty services through the collection of margin fund, supplemental liquidity fund and default fund contributions from their respective participants. On the CDCC side, cash margin 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 pledged to CDCC under irrevocable agreements are in government securities and other securities and are held with approved depositories. On the CDS side, participants' cash contributions related to margin, liquidity and default, recognized on the consolidated balance sheet, are held by CDS at the Bank of Canada and commercial banks with a minimum credit rating of A/R1-low or better. 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.

CDS

The design of CDS'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 manages this risk through active monitoring of payment obligations pre-funded USD which is sized to cover the largest default scenario under extreme market conditions and committed and syndicated credit facilities. Contributions to the CDS NYL Participant Fund are USD cash only. USD cash collateral requirements are deposited through a large network of commercial banks with a minimum credit rating of A/R1-low or better.

There is a risk in placing funds at U.S. 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 maintains 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 TMX Group Revolving 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 Revolving Credit Facility that provides 100% coverage or backstop to the Commercial Paper Program.

Accounting and Control Matters

Changes in accounting policies

The following amendments were effective for TMX Group from January 1, 2023:

- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS practice statement 2)
- 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*)
- International Tax Reform - Pillar Two Model Rules (Amendments to IAS 12, *Income Taxes*)

There was no significant impact on the financial statements as a result of their adoption.

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, 2023. Based on this evaluation, the CEO and CFO have concluded that our DCP were effective as of December 31, 2023.

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, 2023 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, 2023.

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, 2023 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)	2023	2022
Salaries and other short-term employee benefits	\$10.2	\$8.0
Post-employment benefits	0.6	0.7
Share-based payments	11.5	10.6
	22.3	19.3

The key management personnel compensation increased in 2023 compared with 2022, primarily reflecting higher *Salaries and other short-term employee benefits*.

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, our long-term revenue growth CAGR and adjusted EPS CAGR objectives; our target dividend payout ratio; our target debt to adjusted EBITDA ratio; our objectives regarding growing recurring revenue, revenue outside Canada and the percentage of GSIA revenue as a percentage of total TMX Group revenue; our objectives related to the acquisition of VettaFi; the modernization of clearing platforms, including the expected cash expenditures related to the modernization of our clearing platforms and the timing of the implementation of the modernization project; the expected timing and savings related to strategic re-alignment, the timing of and the total cash expenditures related to the U.S. Expansion, other statements related to cost reductions; the ability to and the timing of achieving our targeted leverage range; the impact of the market capitalization of TSX and TSXV issuers overall (from 2022 to 2023); future changes to TMX Group's anticipated statutory income tax rate for 2024; 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 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 and alternative sources of financing, on a national and international basis; dependence on the economy of Canada; adverse effects on our results caused by global economic conditions (including geopolitical events, interest rate movements, threat of recession) 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; dependence on information technology; significant delays in the post trade modernization project resulting from the industry implementation of T+1 settlement or for other reasons, which could lead to increased implementation costs and could negatively impact our operating results; 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 inter-corporate 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 the resulting impact on 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 and other venues; 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; 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 and services; 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 technology and systems;
- no significant changes to our effective tax rate, and number of shares outstanding;
- organic and inorganic growth in recurring revenue
- moderate levels of market volatility over the long term;

- 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 inflation, rising interest rates and supply chain constraints 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.