

# 2017 Annual Report



**The future  
is yours  
to see.**



# Letter from the chair



## It is my pleasure to report to you as Chair of TMX Group on an eventful 2017 for your company.

During 2017, your Board was heavily engaged with management as we worked to bring the Trayport acquisition to closure. As I'm sure you've read by now, Trayport has become an important asset for TMX Group in advancing our strategy in many respects. This acquisition accelerates our global expansion, increases our revenue from recurring sources, significantly broadens our product portfolio and is immediately accretive to our earnings. I encourage you to read more about Trayport in this report.

As we look to the future, we believe that TMX Group is extremely well positioned for long-term growth, delivering a diverse range of product and service solutions to clients across the world. I want to thank all of our clients and stakeholders, not only for their support, but also for collaborating with us to build even stronger working relationships.

I also want to recognize four directors, Denyse Chicoyne, Jeffrey Heath, Peter Pontikes and Anthony Walsh, who will be retiring this year. I enjoyed working with each of them and thank them for their many contributions.

On behalf the Board, I especially want to thank our employees for their dedicated efforts in accelerating the transformation of TMX Group. Finally, I want to express my appreciation to our shareholders for their support as we continue to build a foundation for success into the future.

A handwritten signature in white ink that reads "Charles Winograd". The signature is fluid and cursive.

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### **Charles Winograd**

Chair, Board of Directors  
TMX Group Limited  
March 16, 2018

# Letter from the CEO



**2017 was a transformational year for TMX. In our results, we saw growth in some foundational elements of our business, including capital formation, as well as evidence of the benefits of implementing and maintaining cost management discipline.**

Supported by the fundamental strength of our business model, we continued to make strong progress with the transformation initiative we embarked on almost three and a half years ago. Importantly for our future, we accelerated our evolution from a diverse portfolio of assets into a client-driven solutions provider, while expanding our global footprint and strengthening our competitive position. The work we are doing with surgical focus, to build the TMX of the future, has made TMX a true global player.

## **The Trayport Acquisition**

Although the transformation work is not yet complete, we did some heavy-lifting last year. 2017 will indeed be remembered as the year we acquired Trayport, a London-based, world-leading provider of technology and software solutions for energy traders, brokers and exchanges. With Trayport, we have added a proven and profitable technology driven data and analytics business, as well as a talented team, to TMX. As we continue to develop a deeper understanding of this business, we get more excited about how our combined assets and expertise can drive growth. This is a key priority for 2018 and as we look forward to exploring all of the ways we can leverage Trayport's expertise to drive innovation across the markets we serve as well as into new geographies.

Trayport immediately bolsters our Global Solutions Insights and Analytics business. In fact, pro-forma revenue increased from about 25% in 2016 (excluding TMX Atrium, Razor and BOX) to approximately 36% in 2017 (excluding TMX Atrium, NGX and Shorcan Energy but including Trayport). On the same basis we have also significantly diversified our revenue base with recurring, non-transactional revenue streams now accounting for about 52% of revenue in 2017, up from approximately 40% in 2016.

On the business side, the acquisition of Trayport, the leading European energy network and a premier technology platform for data and analytics, will expand our global reach and provide cross-selling opportunities across our capital formation, trading and clearing businesses.

## Looking Ahead

Another key priority for 2018 is increasing TMX's global footprint. The successes of 2017 continues to fuel our 2018 campaigns. Capital formation is a core function we perform at the centre of the Canadian marketplace and in the Canadian economy. We continue to seek out full spectrum solutions for serving all clients at all stages, from public venture capital through large cap, based here in Canada and around the world.

The overall number of initial public offerings, and the dollar amounts raised, were up significantly in 2017 compared with the previous year. The technology sector continued to thrive. In fact, 2017 was one of the strongest years on record for new listing activity by innovation companies as we welcomed 35 new companies, including 6 from outside of Canada. Within those 35 companies, we saw a great deal of diversity within the life sciences, cleantech and technology sectors.

Another important global growth area for us lies in our derivatives business. A key 2018 priority for Montreal Exchange is the coming launch of extended trading hours, a move designed to broaden the global appeal of our marketplace and increase foreign investor exposure to Canadian benchmark derivatives products. Given the experiences of other exchanges in extending hours, we believe this initiative will contribute to increased volumes over time.

We have seized a leadership position in blockchain initiatives that can revolutionize and invigorate our existing businesses and the exchange industry. We continue to pursue new growth initiatives that can combine insights from digital technologies with an integrated customer experience approach. We want to better engage and service our clients, to help them extract the maximum value from our solutions.

In 2018, the future is well underway at TMX. We are developing new data and analytic solutions and multi-asset class trading capabilities that deploy breakthrough technologies, including blockchain, as well as artificial intelligence and machine learning.

I look forward to updating you on all of our progress after we report our first quarter results.



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**Louis V. Eccleston**

Chief Executive Officer  
TMX Group  
March 16, 2018

# MD&A

Management's Discussion and Analysis

# TMX Group Limited

## MANAGEMENT'S DISCUSSION AND ANALYSIS

February 12, 2018

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, 2017 and as at December 31, 2017, compared with the year ended December 31, 2016 and as at December 31, 2016. This MD&A should be read together with our 2017 audited annual consolidated financial statements as at and for the year ended December 31, 2017 (financial statements).

Our financial statements and this MD&A for the year ended December 31, 2017 are filed with Canadian securities regulators and can be accessed at [www.tmx.com](http://www.tmx.com) and [www.sedar.com](http://www.sedar.com). The financial measures included in this MD&A are based on financial statements prepared in accordance with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), unless otherwise specified. All amounts are in Canadian dollars unless otherwise indicated.

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

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

### MD&A Structure

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

- Mission, Vision and Corporate Strategy – our mission, vision and strategic initiatives for future growth;
- Initiatives and Accomplishments - 2017 initiatives and accomplishments;
- Regulatory Changes - an update on the regulatory environment;
- Market Conditions – a discussion of our current business environment;
- Our Business – a detailed description of our operations and our products and services;
- Results of Operations – a year-over-year comparison of results;
- Liquidity and Capital Resources – a discussion of changes in our cash flow, our outstanding debt and the resources available to finance existing and future commitments;
- Managing Capital - an outline of objectives for managing our cash and cash equivalents, marketable securities, share capital, Commercial Paper, Debentures, and various credit 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 2015-2017, the fourth quarter of 2017 compared with the corresponding period in 2016 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 2017 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 related party relationships and transactions; and
- Caution Regarding Forward-Looking Information.

## MISSION, VISION AND CORPORATE STRATEGY

### Mission

Powering capital and commodity markets, investment, and economic growth for clients in Canada, across North America, and around the world.

### Vision

To be a technology driven solutions provider that puts clients first.

### Corporate Strategy

In 2015, we engaged in a comprehensive review of our portfolio of assets and an in-depth strategic review of the organization to establish our strategy going forward. This included a full scale analysis of our markets and our organization to understand how best to advance beyond a group of companies to be a more fully-integrated organization. From that, we built out our investment strategy. We focused on the greatest areas of need for our clients and the markets in which they operate. Putting clients first and working to create increasing value in the services we provide are our priorities. We identified businesses that are core to our strategy going forward, and decided to deemphasize certain non-core businesses by divesting or entering into partnership, joint venture or outsourcing arrangements. We also announced a realignment of the organization in order to achieve our new vision of being a technology driven solutions provider that puts clients first. The strategic review process guided us to make some important choices that will enhance our ability to grow revenues, obtain significant operational and cost efficiencies, ignite innovation across all aspects of the business and compete more effectively in Canada, across North America, and globally. Our business is now organized into the following areas.

### Capital Markets

Capital formation: Energize and expand the capital markets community to better facilitate capital raising for issuers of all types at all stages of their development, and provide access to alternative sources of capital.

*Lines of business include Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV) listing and issuer services, and TSX Trust TMX Group's transfer agency and corporate trust services business.*

Equities and fixed income trading and clearing: Operate innovative, efficient, reliable, fast, easy to use platforms for equities and fixed income trading and clearing.

*Lines of business include TSX, TSXV and TSX Alpha Exchange (Alpha) equities trading, Shorcan Brokers Limited (Shorcan) fixed income trading and Canadian Depository for Securities Limited (CDS).*



## Derivatives and Energy Markets

Derivatives trading and clearing: Intensify new product creation and leverage our unique market position to benefit from increasing demand for derivatives products both in Canada and globally.

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

Energy trading and clearing: Operate innovative, efficient, reliable, fast, easy to use platforms for energy trading and clearing (sold on December 14, 2017)

*Lines of business included Natural Gas Exchange Inc. (NGX), and Shorcan Energy Brokers Inc. (Shorcan Energy). On December 14, 2017, we completed the sale of NGX and Shorcan Energy. TMX Group has classified the sale of NGX and Shorcan Energy as discontinued operations. Prior to the sale, the operations of NGX and Shorcan Energy entirely comprised of the Energy Trading and Clearing operating segment and a small portion of the Global Solutions, Insights and Analytics operating segment.*

The classification of discontinued operations occurred at December 14, 2017 which is the date of disposal of the operations. Accordingly, TMX Group has re-presented the comparative consolidated income statements to show the discontinued operations separately from continuing operations.

## Global Solutions, Insights and Analytics (formerly Market Insights)

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

*Lines of business include TMX Datalinx (information services), TMX Insights (analytics), Co-location and Managed Services, as well as London-based Trayport Holdings Limited and its subsidiaries, and its U.S.-based affiliate, Trayport Inc. (collectively, Trayport) (acquired on December 14, 2017).*

## INITIATIVES AND ACCOMPLISHMENTS<sup>1</sup>

### Acquisition of Trayport and Sale of Natural Gas Exchange and Shorcan Energy Brokers

In December 2017, we announced that we had completed the acquisition of Trayport, a world-leading provider of technology solutions for energy traders, brokers and exchanges from Intercontinental Exchange Inc (ICE). In conjunction with the Trayport acquisition, TMX Group has completed the sale of Natural Gas Exchange Inc. (NGX) and Shorcan Energy Brokers Inc. (Shorcan Energy) to ICE at a combined value of £221 million / C\$379 million. The sale of these assets was used as partial consideration for the acquisition of Trayport.

The acquisition of Trayport brings a proven team of product development, data, analytics and sales talent to us and immediately strengthens our global data and analytics business. From a strategic perspective, this transaction significantly accelerates our global expansion, increases the portion of our revenue from recurring sources (from approximately 40% in 2016 to approximately 52% pro forma in 2017)<sup>2,3</sup>, increases the portion of our revenue from outside of Canada (from

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<sup>1</sup> The "Initiatives and Accomplishments" 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.

<sup>2</sup> Recurring revenue streams include substantially all of Global Solutions, Insights and Analytics, as well as sustaining listing fees, custody fees, transfer agency fees, and other access / subscription based revenues.

<sup>3</sup> Pro Forma revenue for 2017 excludes TMX Atrium, NGX and Shorcan Energy and includes Trayport for the full year.

approximately 30% in 2016 to 32% pro forma in 2017)<sup>4,8</sup>, and enhances the portfolio of analytics products in our Global Solutions, Insights and Analytics (GSIA) business. Jean Desgagné, President & CEO, TMX GSIA Strategies, is responsible for this business.

Trayport was founded in 1993 and has approximately 240 employees in offices in London, New York and Singapore as of December 31, 2017. Trayport will continue to license its solutions platform to serve a global client base comprised of energy commodities traders, exchanges, wholesale brokers, and central clearing counterparties (CCPs), providing price discovery, trade execution, and post-trade services. We plan to strategically invest to support Trayport's existing growth initiatives while also seeking ways to develop and deploy analytics and benchmark products to facilitate better trading strategies, leverage the combination of Trayport's European leadership with TMX's expertise in North American energy markets to create new products, and explore strategic relationships in new geographies.

#### Summary financial details:

- The £552 million / C\$952 million<sup>5</sup> purchase price comprised of £331 million / C\$573 million in cash, and NGX and Shorcan Energy, valued at a combined £221 million / C\$379 million.
- The cash consideration for the Trayport Acquisition was satisfied from the net proceeds from the TMX Group debenture offering which closed on December 11, 2017, along with excess cash and borrowings under TMX Group's commercial paper program.
- Trayport's revenue for the year ended December 31, 2017 was £60 million / C\$100 million<sup>6,8</sup>, and earnings before interest, taxes, depreciation and amortization (EBITDA) was £33 million / C\$54 million<sup>7</sup>. For the period from 2014 to 2017, Trayport's revenue has increased at a compounded annual growth rate (CAGR) of 7% and EBITDA increased at a CAGR of 12%.<sup>8,9</sup>
- The combined revenue of NGX and Shorcan Energy from January 1, 2017 to December 14, 2017, was approximately C\$58.3 million and the combined operating expenses were approximately C\$34.9 million.
- The transaction is expected to have a positive impact on TMX Group's adjusted earnings per share, being immediately accretive in 2018<sup>10</sup>, before any synergies.
- The expected transaction costs related to the acquisition of Trayport and sale of NGX and Shorcan Energy Brokers are approximately \$19.2 to \$22.2 million (down from our previous estimate of \$25.0 to \$27.0 million) of which approximately \$17.8 million was incurred in 2017 and recorded in the following areas:

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<sup>4</sup> Pro Forma revenue for 2017 excludes TMX Atrium, NGX, and Shorcan Energy and includes Trayport for the full year. From customers with an address outside Canada.

<sup>5</sup> GBP (Sterling) amounts have been converted to Canadian dollars at the Bank of Canada spot rate of 1.7193 (as of December 14, 2017).

<sup>6</sup> GBP (Sterling) amounts have been converted to Canadian dollars at the Bank of Canada 2017 average rate of 1.6720.

<sup>7</sup> For the year ended December 31, 2017 Trayport net income C\$27 million, add back income tax expense C\$7 million, and amortization and depreciation costs of C\$20 million (including C\$15.5 million relating to fair value adjustments from our purchase of Trayport). Trayport EBITDA includes FX gains/losses and dividend income. EBITDA is a non-IFRS measure, see discussion under the heading "*Non-IFRS Financial Measures*". The financial information for Trayport is unaudited.

<sup>8</sup> Financial information for Trayport is unaudited for 2014 - 2016, and derived from the historical financial information and financial statements of Trayport, which were prepared in accordance with applicable generally accepted accounting principles in the U.K., U.S., and Singapore (collectively, "Foreign GAAP"). Financial information for Trayport for 2017 has been adjusted to be in accordance with IFRS. Trayport EBITDA for 2014 - 2016 excludes FX gains/losses, dividend income, and for 2014 and 2015 excludes management charges from GFI Group (its previous owner).

<sup>9</sup> EBITDA in 2014-2016 may not be comparable to EBITDA in 2017 due to differences in accounting standards largely due to capitalizing and amortizing costs that were previously expensed of approximately C\$2 million and FX gains/losses, as well as dividend income excluded from EBITDA in 2014-2016 and included in 2017.

<sup>10</sup> Adjusted earnings per share excludes the impact of acquisition costs and amortization of purchased intangibles.

(in millions of dollars)		
Acquisition costs	\$	13.8
Finance costs		0.3
Gain on sale of NGX and Shorcan Energy		2.0
Capitalized finance costs		1.7
<b>Total transaction costs incurred in 2017</b>	<b>\$</b>	<b>17.8</b>
<b>Estimated 2018 transaction costs</b>		<b>\$1.4 - \$4.4</b>

TMX Group and ICE also entered into a non-binding memorandum of understanding agreeing to explore in the future further avenues for possible collaboration.

## Capital Markets

### Capital Formation

Toronto Stock Exchange (TSX) had the best year since 2013 for new corporate issuers with 44 new corporate issuers (29 new corporate listings, 15 new graduates from TSX Venture Exchange (TSXV)). The total capital raised for the year ended December 31, 2017 from corporate IPOs represented a diversified range of sectors totaling \$4.8 billion.

In February 2017, The Advancing Innovation Roundtable, an independent working group funded by TMX Group, published a report on how to increase access to growth capital for Canadian innovation economy companies as they progress beyond the seed and start-up stages. Announced in October 2016, the 12-member Roundtable is a private sector, investor-led initiative bringing together leaders across Canada's financial services industry, including finance, investment and capital formation. The recommendations of the Advancing Innovation Roundtable focus on solutions, sourced from both the public and private markets, which address the scalability and financing issues across Canada's ecosystem that serves as the foundation for the long-term sustainability of our country's innovation economy.

In April 2017, we announced a new Distributed Ledger Technology (DLT) prototype as part of our strategy to maximize efficiencies and solve day-to-day client challenges across our various business areas. We developed the electronic shareholder voting system prototype based on DLT, more commonly known as blockchain technology, in collaboration with Accenture. Designed as a public company solution for TSX Trust, the E-Proxy Voting System prototype aims to significantly improve the efficiency and accuracy of the voting process during annual shareholder meetings, while also enhancing security through advancements in cryptography. The introduction of a blockchain-based system will also help increase engagement in corporate governance by removing the need for shareholders to be physically present during the voting process.

In June 2017, TSX and TSXV announced the appointment of a Head of Business Development in Israel. This move will allow us to focus on strengthening relationships with the Israeli business community and exploring new opportunities as part of our international growth strategy.

In July 2017, TSX announced that it had reached a significant milestone with 500 exchange traded funds (ETFs) listed. This number has more than doubled in the past five years, bringing the total market capitalization of listed ETFs to approximately \$145 billion as of December 31, 2017.

In October 2017, TMX Group and the Shenzhen Stock Exchange (SZSE) signed a non-binding Memorandum of Understanding (MoU) pursuant to which TMX Group and SZSE agree to explore opportunities for economic cooperation with a specific focus on the technology and innovation sectors. Under the scope of the MoU, TMX Group and SZSE intend to create the "China-Canada Technology and Innovation Companies Service Initiative" with the goal of connecting investors and companies in the technology and innovation sectors in each of the two countries through an expanded capital formation platform. The MoU was subject to approval from the China Securities Regulatory Commission, which was obtained on September 27, 2017, and is effective for a period of five years.

## ***Equities and Fixed Income Trading and Clearing***

In March 2017, CDS began implementation of the Issuer Services Program that was approved in December 2016 with the following adjustments to the fees and implementation schedule, and subject to certain conditions required by CDS's principal provincial regulators.

- All entitlement and Corporate Action Event Management Fees will be implemented over a two year period. Fees will be discounted by 50% for the 2017 calendar year, and by 25% in the 2018 calendar year.
- Events related to corporate debt securities deposited prior to implementation will not attract fees (up to, and including, their maturities).
- Events related to government debt securities deposited prior to implementation will not attract fees (up to, and including, their maturities).
- A pre-payment option with a 20% discount (in addition to the applicable discounts, above) will be available for instruments with predictable payment streams.
- Interest Payment and Maturity Event Fees for serial debentures have been adjusted from \$100/event to \$25/event (in addition to the applicable discounts, above).
- CDS has set up, at no cost, existing Systematic Withdrawals (SWPs) and SWITCH programs (allowing ETF issuer to offer its ETF holder the opportunity to switch one class of ETF security into another in that switch program using a conversion event) as corporate action events for 2017. Transactions will attract Corporate Actions fees if Exchange Traded Funds issuers choose to continue to use CDS to process these events; these fees, however, (SWPs and SWITCHs, as well as Dividend Re-Investment Plans or DRIPs) will be discounted as described above.

In June 2017, we announced the launch of a new reporting capability on TSX NAVex that will provide fund manufacturers transparency into the advisors driving the sale of their products. The first of its kind in Canada, the TSX NAVex Information Portal was developed in collaboration with Broadridge Financial Solutions, Inc. to provide valuable intelligence about the distribution of products, while enabling essential functions such as commission processing. We expect to be live on the platform in early 2018.

In September 2017, CDS Clearing and Depository Services Inc. (CDS Clearing) announced the successful transition to a two day securities settlement period, or T+2, from the previous three day period, or T+3. The shift to T+2 is the result of the collective efforts of multiple stakeholders from across Canada's financial industry. Timed to coincide with the same change in U.S. markets, the move to settle trades more quickly provides significant benefits to CDS's client base, enabling participants to better mitigate counterparty, market and liquidity risks by reducing both outstanding settlements and associated replacement cost risks.

In October 2017, Payments Canada, the Bank of Canada and TMX Group announced a collaboration to experiment with an integrated securities and payment settlement platform based on distributed ledger technology (DLT) as part of the third phase of the Project Jasper research initiative. This next phase of the project will develop a proof of concept for the clearing and settlement of securities using the central bank cash-on-ledger model. The platform would seek to discover greater speed and efficiency by automating the securities settlement process.

## Derivatives Markets

### *Derivatives Trading and Clearing*

Montreal Exchange (MX) achieved two new volume records for the S&P/TSX 60 Index<sup>11</sup> Standard Futures (SXF) – a monthly record of 959,682 contracts traded, as well as a daily record of 211,811 reached on December 11, 2017. A new monthly open interest record for SXF was also achieved with 446,494 contracts on December 12, 2017.

Several of MX's key products set yearly volume records of contracts traded, including:

- The Three-Month Canadian Bankers' Acceptance Futures (BAX) reached 28,962,355 contracts, breaking the record of 26,316,537 set in 2016 by 10%;
- The Ten-Year Government of Canada Bond Futures (CGB) reached 23,946,703 contracts, breaking the record of 20,968,281 contracts set in 2016 by 14%;
- The Five-Year Government of Bond Futures (CGF) reached 358,078 contracts, breaking the record of 301,026 set in 2014 by 19%;
- SXF reached 6,144,651 contracts, breaking the record of 6,090,257 set in 2016 by 1%;
- The Options on Three-Month Canadian Bankers' Acceptance Futures (OBX) reached 801,051 contracts, breaking the record of 748,991 set in 2007 by 7%.

In December 2016, we launched single stock futures (SSFs) on about 20 symbols. The balance of the S&P/TSX 60<sup>12</sup> symbols were added throughout Q1/17. At the end of December 2017, open interest reached approximately 227,000 contracts.

In September 2017, Canadian Derivatives Clearing Corporation (CDCC) announced a proposal to expand its fixed income service to enable certain Canadian buy-side firms to clear cash or repurchase agreements trades directly through CDCC. CDCC's new direct-clearing model seeks to extend the range of significant benefits associated with central clearing counterparty (CCP) clearing, including capital, margin and collateral efficiencies to a new membership category called Limited Clearing Members (LCMs). The on-boarding of LCMs as direct clearing members is expected to begin in 2018, subject to public consultation and regulatory approval.

### **Global Solutions, Insights and Analytics (formerly Market Insights)**

On April 30, 2017, we sold our wireless and extranet infrastructure services business known as TMX Atrium. In 2016 and the four months ended April 30, 2017, TMX Atrium earned approximately \$26.3 million and \$8.6 million of revenue, respectively, and incurred approximately \$30.3 million and \$9.5 million in operating expenses before strategic re-alignment expenses, respectively. The decision to enter into this transaction was made within the scope of our ongoing strategic initiative to streamline our organizational structure and position us to deliver profitable long-term growth.

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<sup>11</sup> The "S&P/TSX 60" is a product of S&P Dow Jones Indices LLC ("SPDJ") 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 ("Dow Jones"); and TSX® is a registered trademark of TSX. SPDJ, Dow Jones, S&P and TSX do not sponsor, endorse, sell or promote any products based on the S&P/TSX 60 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 S&P/TSX 60 or any data related thereto.

<sup>12</sup> The "S&P/TSX 60" is a product of S&P Dow Jones Indices LLC ("SPDJ") 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 ("Dow Jones"); and TSX® is a registered trademark of TSX. SPDJ, Dow Jones, S&P and TSX do not sponsor, endorse, sell or promote any products based on the S&P/TSX 60 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 S&P/TSX 60 or any data related thereto.

In May 2017, we announced that we had teamed up with IRESS, a leading supplier of technology for wealth management and financial markets, to develop compatibility between the IRESS products and the TMX Analytics Transaction Cost Analysis (TCA) application. TMX Analytics TCA offers clients protected access to their trade and order history and enables them to review performance, routing and venue quality in intuitive, customizable formats. Other key features include support for Markets in Financial Instruments Directive (MiFID) II and analysis of interlisted trading data for equities also listed on international venues.

## **Update on Integrated Clearing Platform and Strategic Re-alignment Process<sup>13</sup>**

In June 2017, we announced that we had chosen Tata Consultancy Services (TCS), a leading IT services, consulting and business solutions organization, to implement a single, integrated technology platform for Canada's clearing and settlement businesses. The innovative platform, called TCS BaNCS for Market Infrastructure, will replace the legacy systems deployed by CDS and CDCC, subject to regulatory approval where required. Our current estimate of the expected cash outlays is approximately \$55.0 - \$60.0 million from 2017 to 2019, of which approximately \$9.0 million was spent on capital expenditures in 2017. Substantially all of the costs will be related to capital expenditures and we expect that almost half of the total spend will occur in 2018. The annual savings in operating expenses on a run rate basis, compared with our current cost structure, are expected to be approximately \$6.0 to \$8.0 million, starting in 2020. As we transition to the new platform, it is likely that operating expenses will increase over the short-term before we realize savings in 2020.

In September 2016, we provided a detailed update on the progress made in streamlining our organization, and said that we were targeting further cost reductions before strategic re-alignment expenses related largely to compensation and benefits of \$8.0 to \$10.0 million per year on a run rate basis to be realized by the end of 2016 and \$3.0 to \$5.0 million per year in additional savings on a run rate basis to be realized by the end of 2017, net of the costs associated with new employees that may be hired as we invest in our strategic priorities. We indicated that the majority of the headcount reductions would be completed by the end of Q1/17. Approximately 95 full-time positions and about 20 consultants and contractors were expected to be impacted.

By the end of 2016, we had realized approximately \$12.6 million in savings on a run rate basis, net of the costs associated with new employees. We exceeded our target of \$8.0 to \$10.0 million in net savings per year on a run rate basis, as we exited 2016, largely by accelerating the process of streamlining the organization. The majority of the headcount reductions were completed by the end of Q4/16. Most planned reductions in headcount for 2017 occurred in 1H/17.

### **Corporate**

In 2017 and January 2018, we implemented organizational and executive changes, including new strategic and expanded responsibilities for members of our senior management team:

- Luc Fortin was appointed President & CEO, Montreal Exchange & Global Head of Trading, effective January 16, 2018. In this expanded role which now includes our equity trading and private market businesses, Luc leads the growth of TMX's trading businesses, helping us deliver a best-in-class experience to our trading clients, as well as develop new products.
- Loui Anastasopoulos was appointed President, Capital Formation & TSX Trust (where he was previously President), effective January 16, 2018, responsible for leading our Capital Formation business, which includes the listings functions in the TSX, TSXV and TSX Company Services, as well as TSX Trust. Loui takes over for Ungad Chadda, who has moved to a new role as Senior Vice President & Enterprise Head of Corporate Strategy, Development and External Affairs.
- Jean Desgagné assumed the newly created role of President & CEO, TMX Global Solutions, Insights and Analytics Strategies (formerly Market Insights) in August, 2017. The mandate for this leadership position is to

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<sup>13</sup> The "Update on Integrated Clearing Platform and Strategic Re-alignment Process" 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.

implement and oversee a cohesive TMX Group enterprise approach to innovative technology and data driven solutions. The purpose is to enrich the client experience across TMX Group's capital markets community by providing ready access to benchmark data and analytics products.

- Shaun McIver was appointed Chief Client Officer, TMX Group, effective January 16, 2018, overseeing Marketing & Branding, Salesforce Effectiveness, and Key Account Strategies for the enterprise.
- In addition to his current role as Chief Financial Officer, John McKenzie also took on administrative oversight of CDS and CDCC in August, 2017. Glenn Goucher, as the head of CDS and CDCC, reports to the Boards of the two clearing houses.
- Cheryl Graden's mandate was expanded to include oversight of enterprise risk management, as Senior Vice President, Group Head of Legal and Business Affairs, Enterprise Risk Management and Government Relations
- Jay Rajarathinam, who joined TMX Group from NYSE/Intercontinental Exchange in July 2016, as Chief Information Officer, was promoted to TMX Group's Senior Management Team and reports directly to Lou Eccleston, Chief Executive Officer.
- Eric Sinclair, President, TMX Market Insights retired at the end of August 2017. Over the past 14 years, Mr. Sinclair made significant contributions to TMX Group leading the growth of our data business by establishing a strong client focus, developing new products and services and implementing a professional sales force.
- As a result of splitting the responsibility for the *Capital Formation* and *Equity Trading* businesses, the role of President & CEO, Global Equity Capital Markets was eliminated and it was announced on January 16, 2018 that Nick Thadaney would be leaving the company. Nick agreed to stay on for six weeks in a special advisory capacity in order to ensure the smooth transition of strategic matters.



## REGULATORY CHANGES<sup>14</sup>

### ***Equity Trading***

On January 25, 2017, the Canadian Securities Administrators (CSA) announced approval of further reductions to the cap on active trading fees applicable to ETFs and non-interlisted equities securities executed at \$1.00 or greater. These were reduced from \$0.0030 to \$0.0017 per share/unit traded, effective May 1, 2017. In April 2017, we announced that we reduced our active fee on these securities to \$0.0015 per share/unit traded, effective May 1, 2017. The passive credit was reduced to \$0.0011, also effective May 1, 2017, maintaining the \$0.0004 net spread. We expect that these fee changes could result in a reduction in revenue of approximately \$1.3 to \$1.5 million on an annual basis. No changes are necessary to the fees for TSX Alpha Exchange (Alpha) as it employs an inverted maker-taker model, which results in an active rebate rather than a fee. The reduced fee cap for non-interlisted securities is directionally aligned with what TMX Group had initiated through its maker taker reduction program that commenced in June 2015.

### ***Global Solutions, Insights and Analytics (formerly Market Insights)***

The CSA's data fees methodology estimates a fee range for top-of-book (Level 1) and depth-of-book (Level 2) market data based on a marketplace's contribution to price discovery and trading activity. Effective October 1, 2016, amendments to National Instrument 23-101 - Trading Rules came into force, which among other things, outlined a transparent methodology to be used by the CSA when reviewing professional market data fees charged by a marketplace. In 2017, the CSA is applying the methodology at least annually to determine whether a marketplace's data fees are higher than the range identified using the methodology. While this methodology does recognize the value of TMX Group's exchanges' offerings and relative to our domestic competitors, it introduces a stricter regulatory regime for market data fees. In April 2017 we received notice from the Ontario Securities Commission (OSC) that we will need to amend our market data fees for Alpha. Changes were effective October 1, 2017 and we expect that the revised fees will result in a reduction in revenue of approximately \$0.8 to \$1.0 million on an annual basis. We were also advised that we would not need to amend our market data fees for TSX or TSXV.

## MARKET CONDITIONS

Overall, Canadian equities trading volumes were up 2% in 2017 compared with 2016<sup>15</sup>. The average CBOE Volatility Index (VIX) was 11.1 during 2017, down significantly from 15.8 in 2016. Trading on TSXV increased with a 15% increase in volumes traded in 2017 compared with 2016; however, there was a decline of 15% in the volume traded on TSX over the same period. Derivative trading in Canada was positively impacted by speculation around an increase in interest rates as reflected in a 5% increase in the volume of contracts traded on MX in 2017 compared with 2016.

Canadian equities indices and the market capitalization of listed issuers increased on both TSX and TSXV during 2017. For TSXV (including NEX), there was a 40% increase in the total amount of financing dollars raised and a 3% increase in the total number of financings in 2017 over the same period last year. On TSX, the total amount of financing dollars raised declined by 16% and the total number of financings increased by 4% in 2017 compared with 2016. Looking specifically at

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<sup>14</sup> The "Regulatory Changes" 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.

<sup>15</sup> Source: IIROC (excluding intentional crosses).



IPOs on TSX, there was a 48% increase in the number of IPOs and a 292% increase in IPO financing dollars raised in 2017 compared with last year.

On January 17, 2018, The Bank of Canada increased its overnight rate target to 1.25 per cent.<sup>16</sup> The Bank said recent data has been strong, inflation is close to target, and the economy is operating roughly at capacity. However, uncertainty surrounding the future of the North American Free Trade Agreement (NAFTA) is clouding the economic outlook. The Bank expects CPI inflation to fluctuate in the months ahead as various temporary factors (including gasoline and electricity prices) unwind. Looking through these temporary factors, inflation is expected to remain close to 2 per cent over the projection horizon.

## 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:

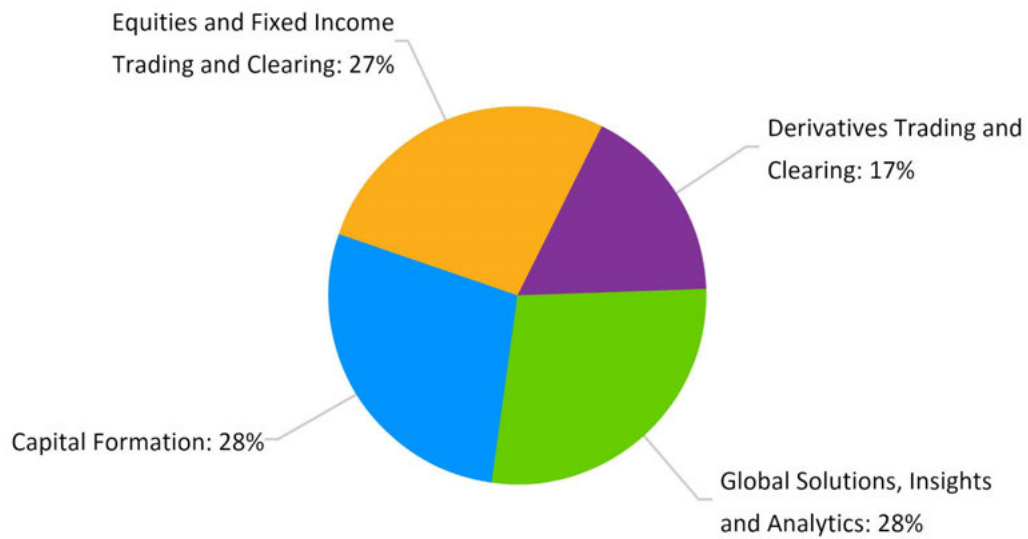
1. Capital Markets
  - i. Capital Formation
  - ii. Equities and Fixed Income Trading and Clearing
2. Derivatives and Energy Markets
  - i. Derivatives Trading and Clearing
  - ii. Energy Trading and Clearing (sold December 14, 2017)
3. Global Solutions, Insights and Analytics (formerly Market Insights)
  - i. TMX Datalinx
  - ii. TMX Insights
  - iii. Co-location and Managed Services
  - iv. Trayport

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

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<sup>16</sup> Source: Bank of Canada press release, January 17, 2018.

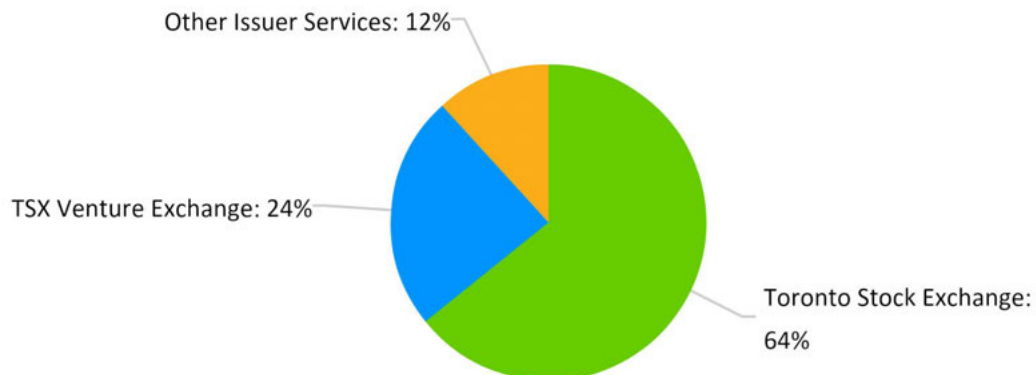
## TMX 2017 Revenue: \$668.9 million



## CAPITAL MARKETS

### Capital Formation

#### Year Ended December 31, 2017 Capital Formation revenue of \$188.7 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 operates a unique two-tiered ecosystem, Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV), to help companies access the public markets, raise equity 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, issuers initially list on TSX through an Initial Public Offering (IPO), by graduating from TSXV, or by seeking a secondary listing in addition to its current 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 (CPC) program or a Reverse Takeover (RTO). 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, convertible debt instruments, limited partnership units, exchange traded funds (ETFs), and structured products such as investment funds.

We are a global leader in listing small and medium-sized enterprises (SMEs) 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). Since the beginning of 2017, we have listed 228 international listings, of which 40 are new technology and innovation companies. Issuers listed on TSX and TSXV raised a combined \$54.5 billion in 2017 (\$48.4 billion on TSX and \$6.1 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 growth of our listed companies and their unique needs. Together with industry leading service providers, we offer solutions designed to help our clients reach their corporate objectives. For example, we teamed up with Ipreo Holdings LLC to offer TSX and TSXV issuers in-depth analysis and dynamic functionality to assist them to build and execute their IR strategies. TSX Trust supports issuers and private companies with corporate trust, transfer and registrar, and employee plan administration services for issuers.

## **Strategy**

- Our business development and sales efforts focus on:
  - Activating new pools of capital in new geographies and by engaging pools of capital not currently active on our markets
  - Growing the innovation sector while maintaining our resource sector franchise
  - Expanding our geographic focus to attract international listings across all sectors
- Streamline and digitize issuer on-boarding processes to improve issuer engagement and to lower costs for issuers
- Develop digital platforms to assist our listed issuer base in making global investors aware of opportunities
- Leverage our trustee license and existing capabilities to expand into adjacent TSX Trust opportunities

## **Revenue Description**

We generate Capital Formation revenue from several services, including:

### Initial Listing

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 listings.

### Additional Listing<sup>17</sup>

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.

The Toronto Stock Exchange (“**TSX**”) has amended the TSX Listing Fee Schedule (“**Fee Schedule**”), effective January 1, 2018. The amendments to the Fee Schedule include:

- An increase to the maximum additional listing fee payable by Corporate Issuers from \$190,000 to \$250,000.
- Housekeeping amendments to clarify the recovery of expenses incurred by TSX

Based on historical data from 2017, we estimate that the revised fees could result in an increase in revenue of approximately \$5.0 to \$7.0 million on an annual basis starting on January 1, 2018.

### Sustaining Listing<sup>18</sup>

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 that the new listing takes place 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) and for TSXV issuers, there are other transactional fees we charge for Stock Options Plans and Change of Business, among others.

The aggregate market capitalization of issuers listed on TSX increased from \$2.74 trillion to \$2.97 trillion at the end of 2016 to the end of 2017. The market capitalization of issuers listed on TSXV increased from \$38.7 billion to \$51.4 billion over the same period. We also made changes to TSX's fee structure that would impact eligible secondary market issuers. In addition, there was a reduction to the annual sustaining fee payable by Special Acquisition Purpose Corporations in their terminal year. We estimate that these increases in market capitalization on TSX and TSXV, net of the impact of some of these other changes in fees, could result in an increase in sustaining listing fee revenue of approximately \$1.0 million for 2018.

### Other Services

TSX Trust revenue is primarily derived from a contractual monthly charge. Corporate trust fees relate to services that include acting as trustee for debt instruments, depository for takeover bid offers, warrant agent, subscription receipt agent, and agent for voluntary escrow arrangements. This revenue is normally transactional.

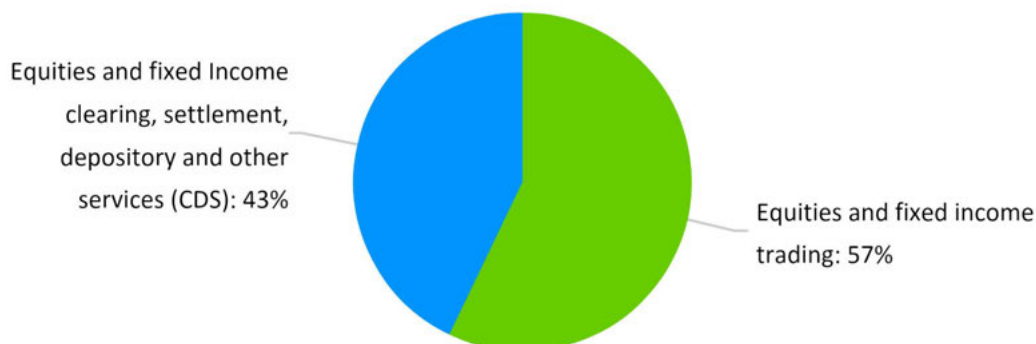
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<sup>17</sup> The "Additional Listing" section above contains certain forward-looking statements. Please refer to "Caution Regarding Forward-Looking Information" for a discussion of risks and uncertainties related to such statements.

<sup>18</sup> 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, 2017  
Equities and Fixed Income Trading and Clearing revenue of \$182.1 million



## Equities and Fixed Income trading – TSX, TSXV, Alpha and Shorcan

### ***Overview and Description of Products and Services***

*We operate innovative, efficient, reliable, fast, easy to use 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 dealers acting as principals or agents, who are 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 in Canada during those times. The closing auctions also establish the 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 to clients – for example, TSX and TSXV offer a range of dark order types that allow clients to obtain price improvement relative to displayed prices. Each of TSX, TSXV and Alpha also allow POs to report their internally matched orders, by printing these as crosses on the exchanges at no cost.

#### **Fixed Income Trading**

Shorcan acts as an inter-dealer bond broker (IDB) that specializes in the Canadian fixed income marketplace, brokering products from benchmark and off the run bonds, to provincial, corporate, strip, and mortgage bonds; repo and swaps. Shorcan serves financial institutions that are broker-dealer registered with the Investment Industry Regulatory Organization of Canada (IIROC) and that are CDCC members; the buy-side does not participate. Interdealer brokers can be accessed via

broker screens that can run on a desktop computer at a trader's desk. IDB negotiations are anonymous pre-trade and post-trade, however, in certain cases, IDBs reveal counterparty identity before trade execution. Shorcan also allow a "workup" session where after two participants match orders, they are able to increase the volume of the trade for 7-seconds with one another.

### **Strategy**

- Focus on strengthening the core business through client-centric activities.
- Continue to deploy innovative trading features and functionalities aimed at reducing dealers' costs and operational risks.
- Leverage existing technology and capabilities to better serve clients.
- Expand into other asset classes (e.g. mutual fund)

### **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. **(also see REGULATORY CHANGES - Equity Trading)**

#### Fixed Income Trading

Shorcan charges broker commissions on both sides of the trade upon execution. Commission of the brokered transaction is embedded in the price of the trade through clearing and settlement processes. Trading revenue is recognized when the trade is settled. Shorcan broker commission varies by different types of fixed income instrument and differ between orders that are matched electronically vs. voice-brokered.

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

### **Overview and Description of Products and Services**

The Canadian Depository for Securities Limited (CDS) is Canada's national securities depository, clearing and settlement hub for domestic and cross-border depository-eligible securities. CDS supports Canada's equity, 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' domestic clearing and settlement services enable participants to report, confirm or match, reconcile, net and settle exchange and OTC traded equity, debt and money market transactions, as well as derivative transactions in depository-eligible securities (e.g., the processing of rights and warrants and the settlement of exercised options). CDS also offers related services such as buy-ins, risk controls and reporting, and facilitates trading in CDSX (CDS's multilateral clearing and

settlement system) eligible securities before they are publicly distributed (trades in these securities settle after public distribution). CDSX is designated by the Bank of Canada as being systematically 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.

In November 2014, CDS submitted to its regulators a notice of publication in respect of amendments to the CDS issuer services program fee schedule. The fees were approved in December 2016, subject to a number of adjustments and conditions and implemented in March 2017 (see **INITIATIVES AND ACCOMPLISHMENTS - Capital Markets - Equities and Fixed Income Trading and Clearing**).

### ***Strategy***

TMX has begun aligning CDS and CDCC under an integrated post-trade services strategy. Under this strategy, the two businesses will:

- Develop and migrate to an efficient, cross-asset next-generation clearing solution
- Explore opportunities related to fintech
- Enhance and develop solutions related to liquidity, capital efficiency, and global infrastructures

### ***Revenue Description***

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

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

Other clearing related fees are recognized when services are performed.

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

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

International revenue consists of revenue generated through offering links as channels to participants to affect 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, depository eligibility, and entitlements and corporate actions management services for which they benefit.

#### 50:50 Rebates on Core CDS Services

For the period starting November 1, 2012 and subsequent fiscal years starting on January 1, 2013, CDS shares with participants, on a 50:50 basis, any annual increases in revenue on clearing and other core CDS Clearing services, as compared with revenues in fiscal year 2012 (the 12-month period ending October 31, 2012). Beginning January 1, 2015 and subsequent years, CDS also shares with Participants, on a 50:50 basis, any annual increases in revenue applicable to the New York Link/Depository Trust Company Direct Link Liquidity Premium compared to the revenues for this service earned in the twelve-month period ended December 31, 2015. 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).

## **DERIVATIVES AND ENERGY MARKETS**

### **Derivatives Trading & Clearing – MX, CDCC and BOX**

*We are focused on delivering multi-asset class solutions for our Canadian and international clients by providing them liquidity and transparency via our risk management ecosystem.*

#### ***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 and equity derivatives. BOX is an equity options market located in the U.S. for which MX is the technical operator and technology developer. As at December 31, 2017, MX held approximately 40% ownership interest in BOX. Our derivatives markets derive revenue from MX's trading and clearing.

#### *Derivatives Trading*

#### ***MX***

MX offers interest rate, index, equity and exchange-rate 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. More than half of MX's volume in 2017 was represented by three futures contracts – the Three-Month Canadian Bankers' Acceptance Futures contract (BAX), the 10-Year Government of Canada Bond Futures contract (CGB) and the S&P/TSX 60 Standard Futures contract (SXF) – with the balance largely represented by our equity and ETF options market.



## **BOX**

BOX is an all-electronic equity derivatives market and is one of a number of equity options markets in the U.S. All BOX trade volume is cleared through the Options Clearing Corporation. BOX runs on our SOLA technology, a leading-edge technology for equity options.

In January 2015, BOX launched a program to incent subscribers to provide liquidity. In exchange for providing this liquidity and a nominal cash payment, subscribers received volume performance rights (VPRs), which are comprised of Class C units of BOX and an order flow commitment. The VPRs vest over 20 quarters of the 5-year order flow commitment period if minimum volume targets are achieved. If a subscriber fails to meet its minimum volume targets, its VPRs are available for reallocation to those subscribers that exceed their minimum volume targets, if any. Those VPRs may vest earlier. In September 2015, the VPR program was granted regulatory approval by the Securities Exchange Commission (SEC). Pursuant to the terms of the VPR program, subscribers became entitled to immediate economic participation in BOX for VPRs held.

As of July 1, 2016, we determined that we did not hold majority voting power on the board of directors as Class C units in certain vested VPRs became entitled to vote at board meetings. As of this date, we no longer consolidated BOX as we ceased to hold the majority of voting power on the board of directors and exercise control. As a result our financial results from July 1, 2016 forward do not include the results of BOX other than our share of BOX's net income (loss), which is reflected in Share of net income (loss) from equity accounted investees. For periods prior to July 1, 2016 our financial results include the results from BOX on a consolidated basis.

Effective July 1, 2016, Derivatives revenue also includes revenue from licensing SOLA technology and providing other services to BOX. This revenue was previously eliminated when BOX's operating results were consolidated in our financial statements.

### *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 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 the only 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 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**).

TMX has begun aligning CDS and CDCC under an integrated post-trade services strategy. Under this strategy, the two businesses will:

- Develop and migrate to an efficient, cross-asset next-generation clearing solution
- Explore opportunities related to fintech
- Enhance and develop solutions related to liquidity, capital efficiency, and global infrastructures

### *Derivatives – Regulatory Division*

MX is a Self-Regulatory Organization (SRO) that has responsibility for maintaining the transparency, credibility and integrity of the exchange-traded derivatives market in Canada. MX's Regulatory Division, which is operated independently of its other operations, is responsible for the regulation of its markets and its trading participants. The Regulatory Division is subject to the sole internal oversight of MX's Special Committee – Regulatory Division. The Special Committee – Regulatory Division, which is appointed by the Board of Directors of MX, is composed of a majority of independent members, none

of whom is a member of the Board of Directors of MX or CDCC. The Regulatory Division operates on a non-profit/cost-recovery basis.

The Regulatory Division generates revenues from regulatory fees (principally comprised of market surveillance fees collected by MX on behalf of its Regulatory Division) and regulatory fine revenues (generated from fines levied by the Regulatory Division). Market regulation fees are recognized in the month in which the services are provided.

Any surplus in the Regulatory Division must be, subject to the approval of the Special Committee – Regulatory Division, redistributed to MX's approved participants (excluding regulatory fine revenues, which cannot be redistributed) and any shortfall must be made up by a special assessment by MX's participants or by MX upon recommendation of the Special Committee – Regulatory Division. Regulatory fine revenues are accounted for separately from regulatory fees revenues and can be used only for specifically approved purposes, such as charitable donations or educational initiatives.

### **Strategy**

- Client focus and global expansion
- Develop digital capabilities
- Diversification of revenue streams
- Extend and develop existing product line.

### **Revenue Description**

MX participants are charged fees for buying and selling derivatives products on a per transaction basis, determined principally by contract type and participant status. Since MX trading fee rates are charged on each transaction based on the number of contracts included in each transaction, MX trading revenue is directly correlated to the volume of contracts traded on the derivatives market. Derivatives trading revenue is recognized in the month in which the trade is executed.

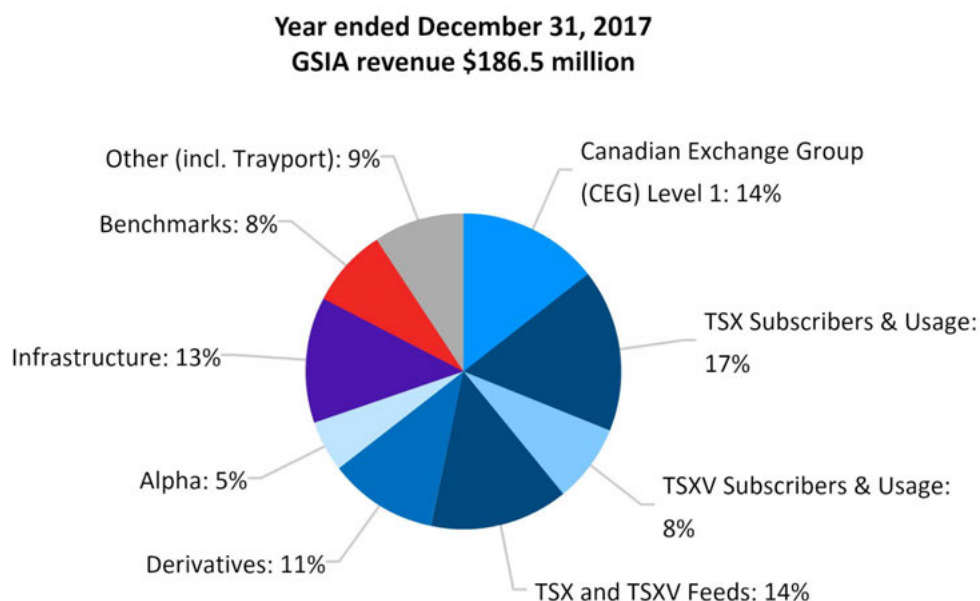
CDCC clearing members (Clearing Members) pay fees for clearing and settlement, including OTC fixed income and REPO transactions, on a per transaction basis. Fees for fixed income transactions are based on the size and term of the original agreement, and Clearing Members pay a minimum monthly fee. Clearing 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. Derivatives clearing revenue is recognized on the settlement date of the related transaction. Clearing revenue for fixed income REPO agreements is recognized on the novation date of the related transaction.

### **Energy trading and clearing – NGX and Shorcan Energy**

In October 2017, we entered into an agreement to sell NGX and Shorcan Energy Brokers as a component of the total consideration for the acquisition of Trayport (See **Initiatives and Accomplishments - Acquisition of Trayport and Sale of Natural Gas Exchange and Shorcan Energy Brokers** for more information). On December 14, 2017, we completed the sale of NGX and Shorcan Energy. TMX Group has classified the sale of NGX and Shorcan Energy as discontinued operations. Prior to the sale, the operations of NGX and Shorcan Energy entirely comprised of the *Energy Trading and Clearing* operating segment and a small portion of the *Global Solutions, Insights and Analytics* operating segment.

The classification of discontinued operations occurred at December 14, 2017 which is the date of disposal of the operations. Accordingly, TMX Group has re-presented the comparative consolidated income statements to show the discontinued operations separately from continuing operations.

## Global Solutions, Insights, and Analytics (formerly Market Insights)



### Overview and Description of Products and Services

We aim to deliver integrated data sets 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 – Toronto Stock Exchange and TSX Venture Exchange Level 1 and Level 2 and Alpha Feeds

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

We offer our subscribers Last Sale, Level 1, and Level 2 real-time services for TSX, TSXV (including NEX, a market for issuers that have fallen below the listing standards of TSXV) and Alpha. Last Sale is a new TMX innovation enabling open display of recent trades for TSX, TSXV and Alpha markets to be displayed on internet media in real-time, providing broad market transparency. 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 is under application to be renewed for a four year period commencing on July 1, 2018.

### Real-Time Derivative Market Data Products

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

### Historical, Online, and Other Market Data Products

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

### **Co-location and Managed 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. At December 31, 2017, over 90% of capacity was contracted or sold.

### **TMX Insights**

#### TMX Global Analytics

TMX Global Analytics provides information and market insights by leveraging multi-asset class content across TMX Group business lines and other sources. TMX Global Analytics enables clients to gain insight into market activity, liquidity, and price discovery, to enhance their ability to improve trading strategies, meet regulatory requirements, and manage risk. TMX Global Analytics provides these capabilities to clients with display based solutions for visualizations of analytics as well as access to power suite of quantitative tools for clients to derive insights directly from TMX's data suite and analytics calculation systems.

#### Equities and Derivatives - Index Products

We have an arrangement with S&P Dow Jones Indices (S&P DJI) under which we share license fees received from organizations that create products, such as mutual funds and ETFs, based on the S&P/TSX indices. In general, these license fees are based on a percentage of funds under management in respect of these proprietary products. In January 2016 we announced the the renewal of the multi-year Index Operation and License Agreement between TSX Inc. and S&P DJI further extending our long-standing partnership. The Agreement between S&P DJI and TSX 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<sup>19</sup>.

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<sup>19</sup> 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.

### Fixed Income – Index and Analytics Products

We have a 24.3% ownership interest in FTSE TMX Global Debt Capital Markets Limited, an international fixed income index business. Income from our 24.2% interest is recorded under **Net income of equity accounted investees** and Global Solutions, Insights and Analytics revenue (as a royalty).

### **Trayport**

In October 2017 we entered into an agreement to acquire Trayport, the acquisition closed in December 2017 (See **Initiatives and Accomplishments - Acquisition of Trayport and Sale of Natural Gas Exchange and Shorcan Energy Brokers** for more information). Trayport is the primary connectivity network and data and analytics platform for the European wholesale energy markets. Trayport's solutions provide price discovery, trade execution, post-trade transparency, and post-trade straight through processing.

### **Strategy**

- Provide unified platforms for TMX Group proprietary content and complete product gaps for all core TMX Group content
- Expand TMX Global Analytics, a suite of multi-asset class, real time and historical analytics using proprietary and third party data
- Expand benchmark and index business by assessing market opportunities in new and existing asset classes (including energy and commodities)

### **Revenue Description**

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.

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

Trayport subscribers pay a monthly rate for access to the the platform, and are normally on multi-year contracts with an average term of about two years.

In 2017, approximately 45% of our Global Solutions, Insights & Analytics revenue was billed in U.S. dollars. In 2017, approximately 93% of Trayport's revenue was billed in British Pound Sterling. We do not currently hedge this revenue and therefore it is subject to foreign exchange fluctuations. (For details, see **Financial Risk Management - Market Risk - Foreign Currency Risk**.)

## Year Ended December 31, 2017 Compared with Year Ended December 31, 2016

### Non-IFRS Financial Measures

EBITDA, adjusted earnings per share, and adjusted diluted earnings per share are non-IFRS measures and do not have standardized meanings prescribed by IFRS and are, therefore, unlikely to be comparable to similar measures presented by other companies. We present EBITDA, adjusted earnings per share, and adjusted diluted earnings per share to indicate ongoing financial performance from period to period, exclusive of a number of adjustments. These adjustments include amortization of intangibles related to acquisitions, acquisition costs, gain on FX forward, gain on sale of NGX and Shorcan Energy, non-cash impairment charges, product write-off, write-off of deferred income tax assets, increase in deferred income tax assets resulting from capital loss carryback, strategic re-alignment expenses, and change in net deferred income tax assets/liabilities resulting from change to Quebec, B.C., and U.S. corporate income tax rates. Management uses these measures, and excludes certain items, because it believes doing so results in a more effective analysis of underlying operating and financial performance, including, in some cases, our ability to generate cash. Excluding these items also enables comparability across periods. The exclusion of certain items does not imply that they are non-recurring or not useful to investors.

### Additional IFRS Measures

Income from operations before acquisition costs and strategic re-alignment expenses, and income from operations are important indicators of TMX Group's ability to generate liquidity through operating cash flow to fund future working capital needs, service outstanding debts and fund future capital expenditures. The intent of these performance measures is to provide additional useful information to investors and analysts; however, these measures should not be considered in isolation.

### BOX (BOX Holdings)

In January 2015, BOX launched a program to incent subscribers to provide liquidity. In exchange for providing this liquidity and a nominal cash payment, subscribers received volume performance rights (VPRs), which are comprised of Class C units of BOX and an order flow commitment. The VPRs vest over 20 quarters of the 5-year order flow commitment period if minimum volume targets are achieved. If a subscriber fails to meet its minimum volume targets, its VPRs are available for reallocation to those subscribers that exceed their minimum volume targets, if any. Those VPRs may vest earlier. In September 2015, the VPR program was granted regulatory approval by the Securities Exchange Commission (SEC). Pursuant to the terms of the VPR program, subscribers became entitled to immediate economic participation in BOX for VPRs held.

As of July 1, 2016, we determined that we did not hold majority voting power on the board of directors as Class C units in certain vested VPRs became entitled to vote at board meetings. As of this date, we no longer consolidated BOX as we ceased to hold the majority of voting power on the board of directors and exercise control. As a result our financial results from July 1, 2016 forward do not include the results of BOX other than our share of BOX's net income (loss), which is reflected in Share of net income (loss) from equity accounted investees. For periods prior to July 1, 2016 our financial results include the results from BOX on a consolidated basis.

Effective July 1, 2016, Derivatives revenue also includes revenue from licensing SOLA technology and providing other services to BOX. This revenue was previously eliminated when BOX's operating results were consolidated in our financial statements.

### Sale of NGX and Shorcan Energy - discontinued operations

On December 14, 2017, we completed the sale of NGX and Shorcan Energy. TMX Group has classified the sale of NGX and Shorcan Energy as discontinued operations. Prior to the sale, the operations of NGX and Shorcan Energy entirely comprised of the *Energy Trading and Clearing* operating segment and a small portion of the *Global Solutions, Insights and Analytics* operating segment.

The classification of discontinued operations occurred at December 14, 2017 which is the date of disposal of the operations. Accordingly, TMX Group has re-presented the comparative consolidated income statements to show the discontinued operations separately from continuing operations.

The information below reflects the financial statements of TMX Group for the year ended December 31, 2017 compared with the year ended December 31, 2016.

(in millions of dollars, except per share amounts)	<b>Year Ended December 31, 2017</b>	Year Ended December 31, 2016	<b>\$ increase/ (decrease)</b>	<b>% increase/ (decrease)</b>
Revenue	<b>\$668.9</b>	\$683.7	\$(14.8)	(2)%
Operating expenses before acquisition costs and strategic re-alignment expenses	<b>356.3</b>	383.6	(27.3)	(7)%
Income from operations before acquisition costs and strategic re-alignment expenses <sup>20</sup>	<b>312.6</b>	300.1	12.5	4%
Acquisition costs <sup>21</sup>	<b>13.8</b>	—	13.8	n/a
Strategic re-alignment expenses	—	21.0	(21.0)	(100)%
Income from operations <sup>22</sup>	<b>298.8</b>	279.1	19.7	7%
Income from discontinued operations, net of tax	<b>176.8</b>	15.7	161.1	1026%
Net income attributable to TMX Group shareholders	<b>368.0</b>	196.4	171.6	87%
Earnings per share - before discontinued operations <sup>23</sup>				
Basic	<b>3.46</b>	3.31	0.15	5%
Diluted	<b>3.43</b>	3.30	0.13	4%
Earnings per share <sup>24</sup>				
Basic	<b>6.66</b>	3.60	3.06	85%
Diluted	<b>6.60</b>	3.58	3.02	84%
Adjusted Earnings per share <sup>25</sup>				
Basic	<b>4.69</b>	4.49	0.20	4%
Diluted	<b>4.65</b>	4.47	0.18	4%
Cash flows from operating activities	<b>276.6</b>	314.4	(37.8)	(12)%

<sup>20</sup> See discussion under the heading "Additional IFRS Financial Measures".

<sup>21</sup> Includes costs related to the acquisition of Trayport.

<sup>22</sup> See discussion under the heading "Additional IFRS Financial Measures".

<sup>23</sup> Earnings per share information is based on net income attributable to TMX Group shareholders, discontinued operations include NGX and Shorcan Energy.

<sup>24</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>25</sup> Adjusted earnings per share includes discontinued operations, net of gain on sale of NGX and Shorcan Energy, and is a non-IFRS measure. See discussion under the heading "Non-IFRS Financial Measures".

## Net income attributable to TMX Group shareholders

Net income attributable to TMX Group shareholders in the year ended December 31, 2017 was \$368.0 million, or \$6.66 per common share on a basic basis and \$6.60 per common share on a diluted basis, compared with a net income of \$196.4 million, or \$3.60 per common share on a basic and \$3.58 on a diluted basis, for the year ended December 31, 2016. The increase in net income in the year ended December 31, 2017 included an after tax gain on the sale of NGX and Shorcan Energy, of \$157.3 million as well as a gain on FX forwards relating to the Trayport acquisition. There were lower operating expenses before acquisition costs and strategic re-alignment and no strategic re-alignment expenses in 2017 compared with 2016. There was also a decrease in income tax expense of approximately \$2.4 million related to a capital loss carryback, which increased net income in 2017. In addition, we incurred lower finance costs in the year ended December 31, 2017 compared with the year ended December 31, 2016. During 2016, we recorded non-cash impairment charges of \$8.9 million relating to AgriClear and TMX Atrium whereas in 2017 we recorded non-cash impairment charges and wrote off product costs totaling \$7.7 million (after tax) relating to AgriClear and TMX Atrium.

These increases in net income were partially offset by lower revenue, acquisition costs on purchase of Trayport and a non-cash income tax adjustment of \$2.9 million relating to the write off of deferred income tax assets relating to TMX Atrium. In 2017, we recorded non-cash income tax adjustments relating to a change in the B.C. and U.S. corporate income tax rate of approximately \$8.3 million, which increased income tax expense, whereas in 2016 we recorded a non-cash income tax adjustment relating to a change in the Quebec corporate income tax rate of approximately \$3.2 million which reduced income tax expense. There was also an unfavorable impact on basic and diluted earnings per share from an increase in the number of weighted-average common shares outstanding in the year ended December 31, 2017 compared with the year ended December 31, 2016.



## Adjusted Earnings per Share Reconciliation for Year Ended December 31, 2017 and Year Ended December 31, 2016

The following is a reconciliation of earnings per share to adjusted earnings per share:

(unaudited)	Year Ended December 31, 2017		Year Ended December 31, 2016	
	Basic	Diluted	Basic	Diluted
Earnings per share - before discontinued operations	\$3.46	\$3.43	\$3.31	\$3.30
Earnings per share - discontinued operations	\$3.20	\$3.17	\$0.29	\$0.28
Earnings per share <sup>26</sup>	\$6.66	\$6.60	\$3.60	\$3.58
Adjustments related to:				
Amortization of intangibles related to acquisitions	0.49	0.48	0.51	0.51
Acquisition costs (including finance costs) <sup>27</sup>	0.25	0.25	—	—
Gain on FX Forward	(0.16)	(0.16)	—	—
Strategic re-alignment expenses	—	—	0.28	0.28
Increase in deferred income tax assets resulting from capital loss carryback <sup>28</sup>	(0.04)	(0.04)	—	—
Gain on sale of NGX and Shorcan Energy	(2.85)	(2.82)	—	—
Non-cash impairment charges (including product write-off in 2017) <sup>29</sup>	0.14	0.14	0.16	0.16
Write-off of deferred income tax assets <sup>30</sup>	0.05	0.05	—	—
Change in net deferred income tax assets/liabilities resulting from change to Quebec, B.C., and U.S. corporate income tax rates	0.15	0.15	(0.06)	(0.06)
Adjusted earnings per share <sup>31</sup>	\$4.69	\$4.65	\$4.49	\$4.47
Weighted average number of common shares outstanding	55,285,668	55,730,437	54,616,160	54,810,538

Adjusted diluted earnings per share increased by 4% from \$4.47 in the year ended December 31, 2016 to \$4.65 in the year ended December 31, 2017. The increase in adjusted diluted earnings per share reflected significantly lower operating expenses before acquisition costs and strategic re-alignment expenses, excluding amortization of intangibles related to acquisitions, partially offset by lower revenue. In addition, we incurred lower finance costs in the year ended December

<sup>26</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>27</sup> Includes costs related to the acquisition of Trayport (24 cents), including finance costs (1 cent).

<sup>28</sup> Related to Razor Risk.

<sup>29</sup> Related to TMX Atrium (10 cents), and Agriclear impairment (6 cents) in 2016; and TMX Atrium impairment (9 cents), Agriclear impairment (3 cents), and product write-off (2 cents) in 2017.

<sup>30</sup> Related to TMX Atrium Wireless.

<sup>31</sup> Adjusted earnings per share includes discontinued operations, net of gain on sale of NGX and Shorcan Energy, and is a non-IFRS measure. See discussion under the heading "Non-IFRS Financial Measures".

31, 2017 compared with the year ended December 31, 2016. The increase in basic and diluted earnings per share were partially offset by the impact from an increase in the number of weighted-average common shares outstanding in the year ended December 31, 2017 compared with the year ended December 31, 2016.

## Revenue

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase/ (decrease)	% increase/ (decrease)
Capital Formation	\$188.7	\$182.9	\$5.8	3%
Equities and Fixed Income Trading and Clearing	182.1	173.5	8.6	5%
Derivatives Trading and Clearing	114.8	117.5	(2.7)	(2)%
Global Solutions, Insights and Analytics	186.5	208.3	(21.8)	(10)%
Other	(3.2)	1.5	(4.7)	(313)%
	<b>\$668.9</b>	\$683.7	\$(14.8)	(2)%

Revenue was \$668.9 million in the year ended December 31, 2017, down \$14.8 million or 2% compared with \$683.7 million in the year ended December 31, 2016. There were decreases in *Global Solutions, Insights and Analytics* revenue reflecting both a \$5.9 million decrease in revenue from Razor Risk (sold on December 31, 2016) and a \$17.7 million decrease in revenue from TMX Atrium (sold on April 30, 2017), partially offset by \$4.5 million revenue from Trayport (acquired on December 14, 2017). The decrease in *Other* revenue was primarily due to recognizing higher net foreign exchange losses on U.S. dollar and other non-Canadian denominated net monetary assets in the year ended December 31, 2017 compared with the year ended December 31, 2016 and reclassifying revenue from BOX's regulatory entity from *Other* revenue to *Derivatives Trading and Clearing* revenue effective July 1, 2016. These decreases were partially offset by increases in *Equities and Fixed Income Trading and Clearing*, and *Capital Formation* revenue. Revenue for the year ended December 31, 2017 increased by 2% over the year ended December 31, 2016, excluding the Razor Risk and TMX Atrium businesses and the \$6.5 million net impact from de-consolidating BOX (effective July 1, 2016).

## Capital Formation

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase/ (decrease)	% increase/ (decrease)
Initial listing fees	\$12.5	\$8.7	\$3.8	44%
Additional listing fees	82.7	90.1	(7.4)	(8)%
Sustaining listing fees	70.3	65.6	4.7	7%
Other issuer services	23.2	18.5	4.7	25%
	<b>\$188.7</b>	\$182.9	\$5.8	3%

- *Initial listing fees* on TSX and TSXV for the year ended December 31, 2017 were higher than in the year ended December 31, 2016 reflecting an increase in both the number of new issuers listed and amount of IPO financing dollars raised on TSX and TSXV.
- *Additional listing fees* in the year ended December 31, 2017 decreased from the year ended December 31, 2016 reflecting a 13% decrease in the number of transactions billed on TSX. There was also a decrease in *additional listing fees* on TSXV where the number of financings decreased in the year ended December 31, 2017 compared with the year ended December 31, 2016.
- Issuers listed on TSX and TSXV pay annual sustaining listing fees primarily based on their market capitalization at the end of the prior calendar year, subject to minimum and maximum fees. There was an increase in *sustaining listing fees* on both TSX and TSXV due to the increase in the market capitalization of issuers at December 31, 2016 compared with December 31, 2015.
- *Other issuer services* revenue in the year ended December 31, 2017 was higher compared to the year ended December 31, 2016 reflecting higher revenue from TSX Trust for transfer agent and corporate trust services.

## Equities and Fixed Income Trading and Clearing

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase	% increase
Equities and fixed income trading	\$104.0	\$102.3	\$1.7	2%
Equities and fixed Income clearing, settlement, depository and other services (CDS)	78.1	71.2	6.9	10%
	<b>\$182.1</b>	\$173.5	\$8.6	5%

- There was a 2% increase in *equities and fixed income trading* revenue in the year ended December 31, 2017 compared with the year ended December 31, 2016. The increase was largely attributable to higher *fixed income trading* revenue reflecting increased activity in Government of Canada Bonds and swaps largely offset by a decline in *equity trading* revenue. The overall volume of securities traded on our equities marketplaces decreased by 5% (142.0 billion securities in the year ended December 31, 2017 versus 149.7 billion securities in the year ended December 31, 2016). Volumes on TSXV increased by 15% and volumes on Alpha increased by 4% from the year ended December 31, 2016 to the year ended December 31, 2017; however, volumes on TSX decreased by 15% over the same period. The decreases in *equities trading* revenue on TSX more than offset the increases in *equities trading* revenue on TSXV and Alpha.

- Excluding intentional crosses, our combined domestic equities trading market share was 63% in the year ended December 31, 2017, down from 69% in the year ended December 31, 2016<sup>32</sup>. The decline in market share reflects an increase in trading volume of issues not listed on TSX or TSXV.
- CDS revenue increased by 10% from the year ended December 31, 2016 to the year ended December 31, 2017 reflecting revisions to the fee schedule for issuer services implemented on March 1, 2017.

## Derivatives Trading and Clearing

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$114.8	\$117.5	\$(2.7)	(2)%

- The decrease in *Derivatives Trading and Clearing* revenue largely reflected the impact from excluding revenue from BOX effective July 1, 2016 when we ceased to consolidate BOX's results from operations. Partially offsetting this decrease, also effective July 1, 2016, *Derivatives Trading and Clearing* revenue includes revenue from licensing SOLA technology and providing other services to BOX. This revenue was previously eliminated when BOX's operating results were consolidated in our financial statements. The net reduction in revenue related to BOX was \$6.5 million.
- This decrease was partially offset by higher revenue from MX and CDCC reflecting higher volumes somewhat offset by the impact of lower revenue per contract due to higher rebates. Volumes increased by 5% on MX (96.3 million contracts traded in the year ended December 31, 2017 versus 91.9 million contracts traded in the year ended December 31, 2016).
- Excluding BOX, *Derivatives Trading and Clearing* revenue from MX and CDCC increased by 3% in the year ended December 31, 2017 over the year ended December 31, 2016.

## Global Solutions, Insights and Analytics

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$186.5	\$208.3	\$(21.8)	(10)%

- The decrease in *Global Solutions, Insights and Analytics* revenue reflected a decline of \$5.9 million in revenue from Razor Risk, and \$17.7 million in revenue from TMX Atrium. The decrease also reflected lower revenue recoveries related to under-reported usage of real time quotes in prior periods, a decrease in professional market data subscriptions, and an unfavourable impact from a stronger Canadian dollar relative to the U.S. dollar in the year ended December 31, 2017 compared with the year ended December 31, 2016.
- The decreases were somewhat offset by an increase in revenue from co-location services, benchmarks and indices, and new analytic products in the year ended December 31, 2017 compared with the year ended December 31, 2016. There was also additional revenue from Trayport (acquired December 14, 2017) of approximately \$4.5 million.
- Revenue for the year ended December 31, 2017 increased by 1% over the year ended December 31, 2016 in the *Global Solutions, Insights and Analytics* business, excluding Razor Risk and TMX Atrium and including Trayport.

<sup>32</sup> Source: IIROC.

- The average number of professional market data subscriptions for TSX and TSXV products decreased by 3% from the year ended December 31, 2016 to the year ended December 31, 2017 (102,018 professional market data subscriptions in the year ended December 31, 2017 compared with 105,629 in the year ended December 31, 2016).
- The average number of MX professional market data subscriptions decreased by 4% from the year ended December 31, 2016 to the year ended December 31, 2017 (18,003 MX professional market data subscriptions in the year ended December 31, 2017 compared with 18,681 in the year ended December 31, 2016).

## Other

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$(3.2)	\$1.5	\$(4.7)	(313)%

- The decrease in *Other* revenue was primarily due to recognizing higher net foreign exchange losses on U.S. dollar and other non-Canadian denominated net monetary assets in the year ended December 31, 2017 compared with the year ended December 31, 2016 and reclassifying revenue from BOX's regulatory entity from *Other* revenue to *Derivatives Trading and Clearing* revenue effective July 1, 2016.

## Operating expenses before acquisition costs and strategic re-alignment expenses

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase/ (decrease)	% increase/ (decrease)
Compensation and benefits	\$171.4	\$183.1	\$(11.7)	(6)%
Information and trading systems	51.2	67.2	(16.0)	(24)%
Selling, general and administration	82.1	76.7	5.4	7%
Depreciation and amortization	51.6	56.6	(5.0)	(9)%
	<b>\$356.3</b>	<b>\$383.6</b>	<b>\$(27.3)</b>	<b>(7)%</b>

Operating expenses before acquisition costs and strategic re-alignment expenses in the year ended December 31, 2017 were \$356.3 million, down \$27.3 million or 7%, from \$383.6 million in the year ended December 31, 2016. There were lower compensation and benefits costs (including employee performance incentive plan costs) of approximately \$7.7 million related to our strategic re-alignment initiative, as well as reduced costs related to Razor Risk and TMX Atrium of approximately \$11.9 million and approximately \$20.8 million respectively. Effective July 1, 2016, we excluded operating expenses related to BOX when we ceased to consolidate BOX's results from operations, which were approximately \$7.6 million in 1H/16. The decreases in costs were partially offset by approximately \$4.7 million of higher employee performance incentive plan costs and increased severance costs of \$5.3 million (not included as part of strategic re-alignment expenses). There were also higher compensation costs related to Trayport, higher occupancy costs, and approximately \$2.2 million higher expenses related to our global marketing campaign.

### **Compensation and benefits<sup>33</sup>**

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$171.4	\$183.1	\$(11.7)	(6)%

- *Compensation and benefits* costs decreased in the year ended December 31, 2017 compared with the year ended December 31, 2016 reflecting reduced costs related to Razor Risk and TMX Atrium of approximately \$10.3 million and approximately \$4.1 million respectively, and the exclusion of BOX costs effective July 1, 2016 when we ceased to consolidate BOX's results from operations. In addition, there were lower compensation and benefits costs (including employee performance incentive plan costs) of approximately \$7.7 million related to our strategic re-alignment initiative, and lower costs related to projects (net of labour capitalization).
- These decreases were largely offset by an increase of approximately \$4.7 million in employee performance incentive plan costs relating to current employees in 2017 compared with the 2016 driven by the increase in our share price, and increased severance costs (not included as part of strategic re-alignment expenses) of approximately \$5.3 million. There were also higher costs associated with employee compensation including merit increases, and Trayport.
- There were 1,238 TMX Group employees at December 31, 2017 versus 1,075 employees at December 31, 2016 reflecting a higher headcount related to the acquisition of Trayport on December 14, 2017 which employs approximately 240 people. This increase was offset by reduction in headcount due to our strategic realignment initiative, the sale of Razor Risk on December 31, 2016 which employed approximately 30 people, the sale of TMX Atrium on April 30, 2017 which employed approximately 20 people, and the sale of NGX and Shorcan Energy which collectively employed approximately 70 people.

<sup>33</sup> The "Compensation and benefits" 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.

- For compensation and benefits, we will likely have higher severance costs related to organizational changes in the range of \$3.5 to \$4.5 million in Q1/18, which is expected to generate an annual savings of approximately \$2 million starting in Q2/18.

### Information and trading systems

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$51.2	\$67.2	\$(16.0)	(24)%

- Information and trading systems* expenses decreased by \$16.0 million in the year ended December 31, 2017 compared with the year ended December 31, 2016 reflecting lower expenses related to Razor Risk and TMX Atrium. In addition, expenses related to BOX were excluded effective July 1, 2016 when we ceased to consolidate BOX's results from operations. Offsetting these decreases, there was a write-off of costs related to discontinued AgriClear products of \$1.7 million (\$1.2 million after tax).

### Selling, general and administration

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase	% increase
	\$82.1	\$76.7	\$5.4	7%

- Selling, general and administration* expenses increased by \$5.4 million in the year ended December 31, 2017 compared with the year ended December 31, 2016 reflecting increases in occupancy costs of \$2.6 million mainly related to recoveries in 2016, higher expenses related to our global marketing campaign of \$2.2 million, as well as higher external fees.
- These increases were partially offset by lower Razor Risk and TMX Atrium costs as well as the exclusion of BOX costs effective July 1, 2016 when we ceased to consolidate BOX's results from operations.

### Depreciation and amortization

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$51.6	\$56.6	\$(5.0)	(9)%

- Lower *Depreciation and amortization* costs reflected a reduction in amortization related to BOX effective July 1, 2016 when we ceased to consolidate BOX's results from operations. There was also a decrease in *Depreciation and amortization* costs related to Quantum XA, TMX Atrium, and Razor.
- The *Depreciation and amortization* costs in the year ended December 31, 2017 of \$51.6 million included \$34.3 million related to amortization of intangibles assets related to acquisitions (49 cents per basic and 48 cents per diluted share). The *Depreciation and amortization* costs in the year ended December 31, 2016 of \$56.6 million included \$34.8 million (\$34.3 million, net of non-controlling interests, NCI, for the six months ended June 30, 2016) related to amortization of intangibles related to acquisitions (51 cents per basic and diluted share).

## Acquisition expenses

	Year Ended December 31, 2017		Year Ended December 31, 2016	
(in millions of dollars)	Pre-tax Amount	Basic and Diluted Earnings per Share Impact <sup>34</sup>	Pre-tax Amount	Basic and Diluted Earnings per Share Impact <sup>35</sup>
	\$13.8	\$0.25	\$—	\$—

- The increase in acquisition costs relate to the acquisition of Trayport that closed on December 14, 2017 (See **INITIATIVES AND ACCOMPLISHMENTS - Acquisition of Trayport and Sale of Natural Gas Exchange and Shorcan Energy Brokers**).

## Strategic re-alignment expenses

	Year Ended December 31, 2017		Year Ended December 31, 2016	
(in millions of dollars, except per share amounts) (unaudited)	Pre-tax Amount	Basic and Diluted Earnings per Share Impact <sup>36</sup>	Pre-tax Amount	Basic and Diluted Earnings per Share Impact <sup>37</sup>
Severance and related costs	—	—	\$18.3	\$0.24
Professional and consulting fees and other charges	—	—	2.7	0.04
Strategic re-alignment expenses	\$—	\$—	\$21.0	\$0.28

- The decrease in strategic re-alignment expenses from the year ended December 31, 2016 to the year ended December 31, 2017 reflected a decrease in severance costs and amounts paid to consultants. The initiative to transform the organization was largely completed by the end of 2016 (See **INITIATIVES AND ACCOMPLISHMENTS - Update on Integrated Clearing Platform and Strategic Re-alignment Process**).

<sup>34</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>35</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>36</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>37</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.



## Additional Information

### Income from discontinued operations

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase	% increase
	\$176.8	\$15.7	\$161.1	1026%

- The increase in *income from discontinued operations* is primarily driven by the gain in the sale of NGX and Shorcan Energy. In 2017, we completed the sale of NGX and Shorcan Energy at a combined amount of \$379.2 million as partial consideration for the related acquisition of Trayport. We disposed net assets of \$174.0 million. There was an income tax expense of \$45.4 million resulting in an after-tax gain of \$157.8 million.
- Income from NGX and Shorcan Energy was \$19.1 million net of tax from January 1, 2017 to December 14, 2017, an increase of \$3.4 million from the year ended December 31, 2016.

### Share of net income from equity accounted investees

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase	% increase
	\$2.9	\$2.4	\$0.5	21%

- In the year ended December 31, 2017 our share of net income from equity accounted investees increased by \$0.5 million primarily attributable to an increase in our share of income from FTSE TMX Global Debt Capital Markets Limited. This increase was partially offset by decreases in our share of income from BOX and Candéal.

### Impairment charges

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$6.5	\$8.9	\$(2.4)	(27)%

- In Q4/16 we determined that the fair value of TMX Atrium and Agriclear were below their carrying value, resulting in impairment charges of \$8.9 million
- In Q1/17 we determined that the fair value of TMX Atrium was below its carrying value, resulting in impairment charges relating to the write-down of goodwill of \$4.8 million. In February 2017, we entered into an agreement to sell TMX Atrium. The transaction closed on April 30, 2017 (see **INITIATIVES AND ACCOMPLISHMENTS - Global Solutions, Insights and Analytics**). There was no material gain or loss on sale in Q2/17.
- In Q4/17 we determined that the fair value of Agriclear was below its carrying value, resulting in impairment charges of \$1.7 million.

## Net finance costs

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)	% (decrease)
	\$15.0	\$31.4	\$(16.4)	(52)%

- The decrease in net finance costs reflects higher gains in 2017 compared with 2016. In 2017 we had gains on FX forwards related to the Trayport acquisition of \$10.2 million before tax (16 cents per share on a basic and diluted basis), gains on U.S. dollar denominated Commercial Paper and lower interest expenses due to decreased average debt levels throughout the year. In addition, there were mark to mark gains on interest rate swaps in 2017 compared with mark to mark losses in 2016. Offsetting these decreases in net finance costs, we incurred finance costs of approximately \$0.3 million related to the acquisition of Trayport in 2017.

## Income tax expense and effective tax rate<sup>38</sup>

Income Tax Expense (in millions of dollars)		Effective Tax Rate (%)	
Year Ended December 31, 2017	Year Ended December 31, 2016	Year Ended December 31, 2017	Year Ended December 31, 2016
\$89.0	\$61.8	32%	26%

- Excluding adjustments, primarily related to the items noted below, the effective tax rate would have been approximately 27% for both 2017 and 2016.
- With the acquisition of Trayport, we expect our 2018 statutory tax rate to be approximately 26%.

### 2017

- In Q4/17, there were non-cash income tax adjustments related to changes in B.C. and U.S. corporate income tax rates. These changes increased net deferred income tax liabilities and reduced net deferred income tax assets, respectively, resulting in a corresponding non-cash net increase in deferred income tax expense of approximately \$8.3 million.
- In Q4/17, we incurred acquisition costs related to Trayport, and non-cash impairment charges related to Agriclear that are non-deductible for tax purposes, which increased our effective tax rate in Q4/17. The impact was somewhat offset by the gain on FX forwards being taxed at 50% of our statutory rate.
- In Q1/17, we incurred non-cash impairment charges of \$4.8 related to TMX Atrium. We also wrote-down \$2.9 million of deferred tax assets relating to TMX Atrium Wireless which increased our effective tax rate for Q1/17. These items increased our effective tax rate and income tax expense in Q1/17.

### 2016

- In Q4/16, the Quebec corporate income tax rate decreased, effective January 1 of each year, starting January 1, 2017. As a result of this change there was a decrease in the value of net deferred income tax liabilities and a corresponding non-cash net decrease in deferred income tax expense of approximately \$3.2 million.
- In Q4/16, we incurred non-cash impairment charges of \$8.9 million as well as a loss on the sale of Razor Risk of \$0.8 million. On a net basis, the related tax impact of these two items increased our effective tax rate for Q4/16.

<sup>38</sup> The "Income tax expense and effective tax rate" 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.

- In Q3/16, we recorded non-cash income tax adjustments of approximately \$2.0 million (net) largely related to the de-consolidation of results from BOX, which reduced income tax expense.

### Net loss attributable to non-controlling interests

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ (decrease)
	\$—	\$0.7	\$(0.7)

- As of July 1, 2016, we no longer consolidated BOX as we ceased to hold the majority of voting power on the board of directors and exercise control. As a result our financial results from July 1, 2016 forward do not include the results of BOX, and our share of BOX's net income (loss), is reflected in **Net income from equity accounted investees** in our financial statements.
- For periods prior to July 1, 2016 our financial results include the results from BOX on a consolidated basis and we reported the net income (loss) attributable to non-controlling interests.

### Total equity attributable to shareholders of TMX Group

(in millions of dollars)	As at December 31, 2017	as at December 31, 2016	\$ increase
Total equity attributable to shareholders of TMX Group	<b>\$3,182.8</b>	\$2,920.7	\$262.1

- At December 31, 2017, there were 55,383,736 common shares issued and outstanding and 1,878,926 options outstanding under the share option plan.
- At February 7, 2018, there were 55,403,013 common shares issued and outstanding and 1,831,909 options outstanding under the share option plan.
- The increase in *Total equity attributable to shareholders of TMX Group* is primarily attributable to the inclusion of net income of \$368.0 million, proceeds from exercised share options of \$17.3 million, less dividend payments to shareholders of TMX Group of \$107.8 million.

## Segments

The following information reflects TMX Group's segment results for the year ended December 31, 2017 compared with the year ended December 31, 2016.

### Year Ended December 31, 2017

(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	\$ 188.7	\$ 182.1	\$ 114.8	\$ 186.5	\$ (3.2)	\$ 668.9
Inter-segment revenue	—	1.5	—	0.6	(2.1)	—
Total revenue	188.7	183.6	114.8	187.1	(5.3)	668.9
Income (loss) from operations before acquisition costs and strategic re-alignment expenses	107.0	84.0	55.0	117.7	(51.1)	312.6

### Year Ended December 31, 2016

(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	\$ 182.9	\$ 173.5	\$ 117.5	\$ 208.3	\$ 1.5	\$ 683.7
Inter-segment revenue	—	1.8	—	1.8	(3.6)	—
Total revenue	182.9	175.3	117.5	210.1	(2.1)	683.7
Income (loss) from operations before strategic re-alignment expenses	113.6	75.2	46.0	108.2	(42.9)	300.1

### Income (loss) from operations before acquisition costs and strategic re-alignment expenses

The decrease in *Income from operations before acquisition costs and strategic re-alignment expenses* from *Capital Formation* reflects higher operating costs before strategic re-alignment expenses in the year ended December 31, 2017 compared with the year ended December 31, 2016. The decrease was somewhat offset by higher revenue from *initial and sustaining listing fees* as well as higher revenue from TSX Trust partially offset by lower revenue from *additional listing fees*.

The increase in *income from operations before acquisition costs and strategic re-alignment expenses* from *Equities and Fixed Income Trading and Clearing* was driven by higher revenue from *Fixed Income Trading* and CDS partially offset by lower *Equities Trading* revenue. There were also lower operating costs before acquisition costs and strategic re-alignment expenses in 2017 compared with 2016.

*Income from operations before acquisition costs strategic re-alignment expenses* from *Derivatives* increased reflecting lower operating costs before acquisition costs and strategic re-alignment expenses. There was also higher revenue from MX and CDCC, reflecting a 5% increase in volumes on MX somewhat offset by the impact of lower revenue per contract

due to higher rebates. *Income from operations before strategic re-alignment expenses from Derivatives* also reflects the exclusion of revenue and expenses from BOX effective July 1, 2016 when we ceased to consolidate BOX's results from operations. Also effective July 1, 2016, *Derivatives* revenue and expenses include revenue and expenses from licensing SOLA technology and providing other services to BOX. This revenue and associated expense were previously eliminated when BOX's operating results were consolidated in our financial statements. The net reduction in *Derivatives* revenue related to BOX from the year ended December 31, 2017 to the year ended December 31, 2016 was \$6.5 million.

The increase in *Income from operations before acquisition costs and strategic re-alignment expenses from Global Solutions, Insights and Analytics* largely reflects the positive impacts from the sales of Razor Risk and TMX Atrium. While revenue from Razor Risk declined by \$5.9 million in the year ended December 31, 2017 compared with the year ended December 31, 2016, operating expenses declined by \$11.9 million in the year ended December 31, 2017 compared with the year ended December 31, 2016. Revenue from TMX Atrium declined by \$17.7 million in the year ended December 31, 2017 compared with the year ended December 31, 2016, while operating expenses decline by \$20.8 million in the year ended December 31, 2017 compared with the year ended December 31, 2016.

*Other* includes certain revenue as well as corporate and other costs related to initiatives, not allocated to the operating segments. Revenue related to foreign exchange gains and losses and other services are presented in the *Other* segment. Costs and expenses related to the amortization of purchased intangibles, along with certain consolidation and elimination adjustments, are also presented in *Other*. The higher *loss from operations before acquisition costs and strategic re-alignment expenses* for the *Other* segment reflected a decrease in corporate and other costs allocated to other segments, and lower revenue. The decrease in *Other* revenue was primarily due to recognizing higher net foreign exchange losses on U.S. dollar and other non-Canadian denominated net monetary assets in the year ended December 31, 2017 compared with the year ended December 31, 2016 and reclassifying revenue from BOX's regulatory entity from *Other* revenue to *Derivatives Trading and Clearing* revenue effective July 1, 2016.

## Geographical Information

The following information provides revenue by geography for the years ended December 31, 2017 and December 31, 2016.

### 2017

(in millions of dollars)	Canada	U.S.	U.K.	Other	TMX Group
Revenue	\$511.0	\$118.2	\$16.7	\$23.0	\$668.9

### 2016

(in millions of dollars)	Canada	U.S.	U.K.	Other	TMX Group
Revenue	\$493.2	\$145.6	\$16.2	\$28.7	\$683.7

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

In 2017, revenue originating from outside of Canada decreased by \$32.6 million with revenue originating from U.S. decreasing by \$27.4 million or 3% of total revenue, and revenue from Other regions decreasing by \$5.7 million or 1% of total revenue. These decreases were driven by the sale of Razor Risk (sold December 31, 2016), and TMX Atrium (sold April 30, 2017), revenue from both businesses were predominantly outside of Canada. These decreases were partially offset by Trayport revenue (acquired December 14, 2017) that largely originates from the U.K.

## LIQUIDITY AND CAPITAL RESOURCES

### Summary of Cash Flows

#### *Year Ended December 31, 2017 compared with Year Ended December 31, 2016*

(in millions of dollars)	Year Ended December 31, 2017	Year Ended December 31, 2016	\$ increase/ (decrease) in cash
Cash flows from operating activities	\$276.6	\$314.4	\$(37.8)
Cash flows from/(used in) financing activities	270.4	(207.3)	477.7
Cash flows used in investing activities	(612.0)	(18.3)	(593.7)

- In 2017, *Cash flows from operating activities* decreased compared with 2016 reflecting an increase in income taxes paid.
- In 2017, *Cash flows from financing activities* were higher than in 2016 when we used cash in financing activities. During 2016, we used \$350.0 million in cash when we repaid our Series C Debentures whereas in 2017 there was an increase in cash following the issuance of \$300.0 million in Series D Debentures. The impact of this \$650.0 million increase in cash was partially offset by a net reduction in the issuance of Commercial Paper of approximately \$150.0 million and an increase in dividends paid to equity holders.
- In 2017, there was an increase in *Cash flows used in investing activities* compared with 2016 reflecting a cash outflow of \$613.5 million related to the purchase of Trayport and an increase in cash outlays for additions to premises and equipment and intangible assets, partially offset by the proceeds on the sale of TMX Atrium.

### Summary of Cash Position and Other Matters<sup>39</sup>

#### Cash, Cash Equivalents and Marketable Securities

(in millions of dollars)	As at December 31, 2017	as at December 31, 2016	\$ (decrease)
	\$225.1	\$302.4	\$(77.3)

We had \$225.1 million of cash, cash equivalents and marketable securities at December 31, 2017. There was a decrease in cash, cash equivalents and marketable securities primarily reflecting a cash outflow of \$613.5 million relating to the purchase of Trayport, dividends to TMX Group shareholders of \$107.8 million and additions to premises and equipment and intangible assets of \$44.1 million. These decreases in cash were offset by cash flows from operating activities of \$281.9 million, proceeds from the issuance of our Series D Debentures of \$300.0 million, a net increase in Commercial Paper of approximately \$85.4 million and proceeds from exercised options of \$17.3 million. Based on our current business operations and model, we believe that we have sufficient cash resources to operate our business, make interest payments, as well as meet our covenants under the trust indentures governing our debentures and the terms of the Amended and Restated Credit Agreement (as amended on December 14, 2017) and commercial paper program (Commercial Paper Program) (see **LIQUIDITY AND CAPITAL RESOURCES - Commercial Paper, Debentures, Credit and Liquidity Facilities**), and satisfy the capital maintenance requirements imposed by regulators.

<sup>39</sup> 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.

Going forward, we expect to have increased capital requirements related to premises as we consolidate our Toronto and Montreal facilities. Approximately \$17.0 million of capital expenditure was spent in 2017, and a further approximately \$13.0 million of spending is expected in 2018. The expected annual savings will result in reductions in operating expenses of approximately \$2.4 to \$2.8 million on a run rate basis starting in Q3/18. During Q2/18, we also expect to record charges of approximately \$5.0 million related to lease terminations.

We will also have cash outlays in integrating our clearing platforms (see - **INITIATIVES AND ACCOMPLISHMENTS - Update on Integrated Clearing Platform and Strategic Re-alignment Process**)

Debt financing of future investment opportunities could be limited by current and future economic conditions, the covenants in the Amended and Restated Credit Agreement (as amended on December 14, 2017) and the Debentures, and by capital maintenance requirements imposed by regulators. At December 31, 2017, there was \$395.3 million of Commercial Paper outstanding, and the authorized limit under the program was \$500.0 million.

## Total Assets

(in millions of dollars)	As at December 31, 2017	as at December 31, 2016	\$ increase
	\$25,624.8	\$22,201.4	\$3,423.4

- Our consolidated balance sheet as at December 31, 2017 includes outstanding balances on open REPO agreements within *Balances with Clearing Members and Participants*. These balances have equal amounts included within *Total Liabilities*. The increase in *Total Assets* of \$3,423.4 million from December 31, 2016 reflected higher balances in CDCC related to REPO agreements at December 31, 2017.

## Defined Benefit Pension Plan

Based on the most recent actuarial valuations, we estimate a deficit of approximately \$12.3 million of which \$1.4 million was funded in 2017. The next required tri-annual valuation for the TMX RPP will be as at December 31, 2019, however with the proposed new Ontario funding rules, we will be filing a new RPP valuation as at December 31, 2017.

## Commercial Paper, Debentures, Credit and Liquidity Facilities

### Commercial Paper

(in millions of dollars)	As at December 31, 2017	as at December 31, 2016	\$ increase
	\$395.3	\$309.9	\$85.4

TMX Group maintains a Commercial Paper Program to offer potential investors up to \$500.0 million (or the equivalent U.S. dollars) of Commercial Paper to be issued in various maturities of no more than 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 100% backstopped by a credit agreement with a syndicate of lenders.

The Commercial Paper issued represents an unsecured obligation and ranks equally with all other senior unsecured obligations of TMX Group. The Commercial Paper has been assigned a rating of "R-1 (low)" with a Stable trend by DBRS Limited (DBRS).

There was \$395.3 million outstanding under the program at December 31, 2017 reflecting a net increase in the year ended December 31, 2017 of approximately \$85.4 million. The Commercial Paper outstanding at December 31, 2017 included approximately \$376.6 million issued in Canadian dollars and approximately \$18.8 million in the Canadian dollar equivalent amount of U.S.dollar Commercial Paper. Commercial paper is short term in nature, and the average term to maturity from the date of issue in the year ended December 31, 2017 was 61.2 days on Canadian dollar Commercial Paper and 31.9 days on U.S.dollar Commercial Paper.

## Debentures

TMX Group has the following Debentures outstanding:

Debenture	Principal Amount (\$ millions)	Coupon	Maturity Date	DBRS Credit Rating
Series A	\$400.0	3.253% per annum, payable in arrears in equal semi-annual installments (long first coupon)	October 3, 2018	A (high)
Series B	250.0	4.461% per annum, payable in arrears in equal semi-annual installments (long first coupon)	October 3, 2023	A (high)
Series D	300.0	2.997% per annum, payable in arrears in equal semi-annual installments	December 11, 2024	A (high)

- The Series A and Series B 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 Indenture) and 100% of the principal amount of the Debentures being redeemed to the date fixed for redemption. For the Series B Debentures, if redeemed on or after the date that is three months prior to the maturity date of the series, the redemption price is equal to 100% of the aggregate principal amount outstanding on the Series B Debentures to be redeemed.
- On December 11, 2017, the Company completed a private placement offering of \$300.0 million aggregate principal amount of senior unsecured debentures ("Series D Debentures") to accredited investors. The Series D Debentures received a credit rating of A (high) with a Stable trend from DBRS Limited. The Company incurred financing costs of \$1.7 for the initial issuance of the Series D Debentures, and these costs are offset against the initial carrying value of the Debentures. The Series D Debentures may be redeemed, as a 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 Indenture) and 100% of the principal amount of the Debentures being redeemed. If the 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 Debentures together with accrued and unpaid interest to the date of the redemption.
- The trust indentures governing the Debentures (the Trust Indentures) include the following covenants:
  - 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.
  - Limitation on indebtedness of material subsidiaries of TMX Group – the Trust Indentures impose restrictions on the ability of material subsidiaries to enter into certain types of indebtedness.
  - Repurchase on change of control of TSX Inc. or MX coupled with a triggering event – in the event of a change of control (as such term is defined in the Trust Indentures) of either TSX Inc. or MX and 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.

- 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)	<b>As at December 31, 2017</b>	as at December 31, 2016	<b>\$ increase</b>
Current Debentures	<b>\$399.8</b>	\$0.0	\$399.8
Non-Current Debentures	<b>\$547.6</b>	\$648.7	\$(101.1)
	<b>\$947.4</b>	\$648.7	\$298.7

## Credit Facilities

In 2014, TMX Group entered into a Credit Agreement with a syndicate of lenders establishing a credit facility to provide a 100% backstop to the Commercial Paper Program. It is also available for general corporate purposes. The original amount available under the TMX Group credit facility was \$400.0 million, or USD equivalent, less the amount of: (i) Commercial Paper outstanding and (ii) inter-company notes payable outstanding to NGX, CDS and CDCC.

In 2016, TMX Group entered into an Amended and Restated Credit Agreement which had a maturity date of May 2, 2019. The new facility for \$500.0 million, or USD equivalent, replaced the \$400.0 million Credit Agreement described above, which had a maturity date of August 1, 2016. The amount available under this facility is also reduced by the amount of Commercial Paper outstanding and the above-mentioned inter-company notes payable outstanding.

On December 14, 2017 in connection with the acquisition of Trayport and sale of NGX and Shorcan Energy, we amended the Amended and Restated Credit Agreement to extend the maturity date to May 2, 2020. In addition, certain terms of the credit agreement were also amended including a less restrictive total leverage ratio as described below:

- an Interest Coverage Ratio of more than 4.0:1, where Interest Coverage Ratio:
  - means the ratio of adjusted EBITDA for the period comprised of the four most recently completed financial quarters to an annualized consolidated interest expense for the first three financial quarters following the closing date, December 14, 2017;
  - and thereafter means 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;
- a Total Leverage Ratio of not more than:
  - 3.75:1 on and after January 1, 2017 until December 31, 2018; and
  - 3.5:1 on January 1, 2019 and thereafter

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. 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, 2017, all covenants were met under the Amended and Restated Credit Agreement.

The following table summarizes the Applicable Rates and Fee Rates and corresponding Total Leverage Ratios under the Amended and Restated 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.

<b>Applicable Margin Pricing Matrix</b>			
<b>Total Leverage Ratio (x)</b>	<b>Standby Fee for undrawn portion of Revolving Facility</b>	<b>Prime Rate Loans and US Base Rate Loans</b>	<b>BA Instruments/ LIBOR Loans / Letters of Credit</b>
≤ 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 ≤ 3.75	37.5 bps	87.5 bps	187.5 bps
> 3.75	40.0 bps	100.0 bps	200.0 bps

### **Foreign Exchange Forwards to hedge the Trayport acquisition**

On October 27, 2017 we entered into foreign exchange forwards to economically hedge the cash consideration of the purchase price of the Trayport acquisition. Upon settlement, we realized gains on the FX forwards which are included in net finance costs (see **Additional Information - Net finance costs**).

### **Interest Rate Swaps (IRS)**

As at December 31, 2017 we have the following IRS in place:

<b>Interest Rate</b>	<b>Maturity Date</b>	<b>Principal (in millions)</b>
1.08%	May 2, 2019	\$100.0

This swap was put in place to economically hedge the issuance of commercial paper starting on October 3, 2016 (see **MANAGING CAPITAL**). As this IRS was not designated as a hedge for accounting purposes, it is possible that there will be fluctuations in net income as we mark to market the fair value of this IRS each quarter until maturity.

## Effective Interest Rates

The effective interest rates as at December 31, 2017 for the Debentures and Commercial Paper are shown below:

Debentures and Commercial Paper	Principal (\$CAD millions)	Maturity	All-in Rate
Series A Debentures	\$400.0	Oct. 3, 2018	3.253%
Series B Debentures	250.0	Oct. 3, 2023	4.461%
Series D Debentures	300.0	Dec. 11, 2024	2.997%
Commercial Paper, CAD - interest rate economically hedged	100.0	Jan 5 - Feb 2, 2018	1.08% <sup>40</sup>
Commercial Paper, CAD - interest rate unhedged	276.6	Jan 5 - Feb 13, 2018	1.39% <sup>41</sup>
Commercial Paper, USD - interest rate unhedged	18.8	Jan 8 - Jan 22, 2018	1.54% <sup>42</sup>

## Other Credit and Liquidity Facilities

CDCC maintains daylight liquidity facilities for a total of \$600.0 million to provide liquidity on the basis of collateral in the form of securities that have been received by CDCC. The daylight liquidity facilities must be cleared to zero at the end of each day.

CDCC also maintains a repurchase facility with a syndicate of six Canadian major chartered banks. This facility is in place to provide end-of-day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero or if emergency liquidity is required 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. The size of this facility increased from \$13,638.0 million of uncommitted liquidity to \$13,788.0 million during the year ended December 31, 2017 as a result of Clearing Members' activities. CDCC has the option to re-size this facility on a quarterly basis in order to stay consistent with its liquidity risk policy.

CDCC maintains a \$300.0 million syndicated revolving standby liquidity facility to provide end-of-day liquidity in the event that CDCC is unable to clear the daylight liquidity facilities to zero or if emergency liquidity is required in the event of a Clearing member default. Advances under the facility are secured by collateral in the form of securities that have been pledged to or received by CDCC. As at December 31, 2017, CDCC did not have any failed REPO settlement and as such did not require a draw. On March 3, 2017, TMX Group extended the facility from March 3, 2017 to March 2, 2018. In addition, CDCC has 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 maintains unsecured operating demand loans totaling \$6.0 million to support short-term operating requirements. To support processing and settlement activities of Participants, an unsecured overdraft facility and demand loan of \$15.0 million and an overnight facility of US\$5.5 million are available. The borrowing rates for these facilities are the Canadian prime rate or the U.S. base rate, depending on the currency drawn. No amounts were drawn on these credit facilities as at December 31, 2017.

<sup>40</sup> Rate denoted in CAD.

<sup>41</sup> Rate denoted in CAD.

<sup>42</sup> Rate denoted in USD.

CDS also has a US\$400.0 million or Canadian dollar equivalent secured standby credit agreement with a syndicate of banks to support processing and settlement activities in the event of a Participant default. Borrowings under the secured facility are obtained by pledging or providing collateral pledged by Participants primarily in the form of debt instruments issued or guaranteed by federal, provincial and/or municipal governments in Canada or U.S. treasury instruments. The facility can be drawn in either U.S. or Canadian currencies and depending upon the currency drawn, the borrowing rate for the secured standby credit arrangement is the U.S. base rate or the Canadian prime rate. No amounts were drawn on these credit facilities as at December 31, 2017. In 2017, we modified the terms of the CDS standby liquid facility to extend the term from December 6, 2017 to February 28, 2018.

In addition, CDS has an agreement 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 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.

In compliance with PFMI and additional Canadian regulatory and oversight guidance, CDS Clearing and CDCC each maintain a recovery plan, to be applied in the event that the entity is unable to provide defined critical operations and services as a going concern. These recovery plans are filed with their respective Canadian regulators. In connection with the recovery plans, and if certain funding conditions are met, TMX Group agreed to provide certain limited financial support to CDS Clearing and CDCC, if necessary, in the context of a recovery.

AgriClear maintains a US\$10.5 million uncommitted letter of credit facility with a major Canadian chartered bank. The facility is being used to issue letters of credit to support the operations of the AgriClear business. As at December 31, 2017, C\$0.1 million and US\$9.2 million of letters of credit were outstanding. TMX Group has issued a US\$10.5 million guarantee for this facility. AgriClear maintains an uncommitted credit agreement for \$3.0 million and US\$3.0 million. The borrowing rates for these facilities, if drawn, are the Canadian prime or the US prime rate, depending on the currency drawn. The facilities are to be used by AgriClear to support its settlement operations.

Shorcan maintains a facility with a major chartered bank to provide end of day liquidity to cover any shortfalls due to timing of payments and receipts. Utilization of this facility is secured by collateral in the form of securities.

## Contractual Obligations

(in millions of dollars)	Total	Less than 1 year	1 - 3 years	3 - 5 years	5+ years
Commercial Paper	395.3	395.3	—	—	—
Debentures	950.0	400.0	—	—	550.0
Financial Lease Obligation	0.1	0.1	—	—	—
Operating Leases	162.0	22.8	27.2	21.6	90.4
Clearing and Other Obligations <sup>43</sup>	20,082.3	20,066.3	8.0	8.0	—

## MANAGING CAPITAL

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

<sup>43</sup> Clearing and Other Obligations includes fair value of open energy contracts, energy contracts payable, balances and cash collateral held with derivatives clearing members and balances with participants of CDS. There are offsetting assets in these clearing operations.

- Maintaining sufficient capital for operations to ensure market confidence and to meet regulatory requirements and credit facility requirements (see **Commercial Paper, Debentures, Credit and Liquidity Facilities** for a description of certain financial covenants under the Credit Agreement). Currently, we target to retain a minimum of \$170.0 million in cash, cash equivalents and marketable securities. This amount is subject to change;
- Maintaining our credit ratings in a range consistent with our current A (high) and R1 (low) credit ratings from DBRS;
- Using excess cash to invest in and continue to grow the business;
- Returning capital to shareholders through methods such as dividends paid to shareholders and purchasing shares for cancellation; and
- Reducing the debt levels to be below the Total Leverage Ratios under the Credit Agreement, which decrease over time.

We achieve the above objectives while managing our capital subject to capital maintenance requirements imposed on us and our subsidiaries by regulators. Certain of the requirements described below may impose restrictions on the amount of upstream dividends or other amounts that a subsidiary may distribute to its shareholders:

- In respect of TSX, as required by the OSC to maintain certain financial ratios on both a consolidated and non-consolidated basis, as defined in the OSC recognition order, as follows:
  - a current ratio of greater than or equal to 1.1:1;
  - a debt to cash flow ratio of less than or equal to 4:1; and
  - a financial leverage ratio of less than or equal to 4:1.
- In respect of TSXV, as required by various provincial securities commissions to maintain sufficient financial resources.
- In respect of MX, as required by the AMF to maintain certain regulatory ratios as defined in the AMF recognition order, as follows:
  - a working capital ratio of more than 1.5:1;
  - a cash flow to total debt outstanding ratio of more than 20%; and
  - a financial leverage ratio of less than 4.0.
- In respect of CDCC, to maintain certain amounts, as follows:
  - maintain sufficient financial resources as required by the OSC and AMF;
  - \$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;
  - sufficient cash, cash equivalents and marketable securities to cover 12 months of operating expenses, excluding amortization and depreciation; and
  - \$30.0 million total shareholders' equity.

- In respect of Shorcan:
  - by IIROC which requires Shorcan to maintain a minimum level of shareholder's equity of \$0.5 million;
  - by the National Futures Association which requires Shorcan to maintain a minimum level of net capital; and
  - by the OSC which requires Shorcan to maintain a minimum level of excess working capital.
- In respect of CDS and CDS Clearing, as required by the OSC and the AMF, to maintain certain financial ratios as defined in the OSC recognition order, as follows:
  - a debt to cash flow ratio of less than or equal to 4.0; and
  - a financial leverage ratio of less than or equal to 4.0.
  - In addition, the OSC requires CDS and CDS Clearing to maintain working capital to cover 6 months of operating expenses (excluding, in the case of CDS, the amount of shared services fees charged to CDS Clearing). CDS Clearing introduced dedicated own resources in the Continuous Net Settlement (CNS) default waterfall for the CNS function; beginning January 1, 2016, funded with \$1.0 million in cash and cash equivalents or marketable securities to cover the potential loss incurred due to Participant's default.
- In respect of Alpha, as required by the OSC, to maintain certain financial ratios on both a consolidated and non-consolidated basis as defined in the OSC recognition order, as follows:
  - a current ratio of greater than or equal to 1.1:1;
  - a debt to cash flow ratio of less than or equal to 4.0:1; and
  - a financial leverage ratio of less than or equal to 4.0:1.
- In respect of TSX Trust, as required by the Office of the Superintendent of Financial Institutions, to maintain a certain minimum capital amount and ratio and a financial leverage ratio of less than or equal to 8%.

As at December 31, 2017, we were in compliance with each of these externally imposed capital requirements, except those in respect of Shorcan's minimum level of net capital and excess working capital required by the National Futures Association and the OSC, respectively. See **Credit Facility** in this MD&A for a description of the financial covenants imposed on us. Subsequent to year end, we completed a capital contribution to Shorcan which put Shorcan inside its National Futures Association (NFA) and Ontario Securities Commission (OSC) regulatory requirements.

## FINANCIAL INSTRUMENTS

### Cash, Cash Equivalents and Marketable Securities

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

We have designated our marketable securities as fair value through profit and loss. Fair values have been determined by reference to quoted market prices. There were no unrealized or realized gains reflected in net income for the year ended December 31, 2017, compared with unrealized gains of \$0.1 million and realized gains of \$0.1 million for the year ended December 31, 2016.

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 **Credit Risk - Cash and cash equivalents, Credit Risk – Marketable Securities, Market Risk - Interest Rate Risk – Marketable Securities, Liquidity Risk - Cash and cash equivalents and Liquidity Risk - Marketable securities.**

### **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, 2017, we had restricted cash and cash equivalents of \$116.3 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 **Credit Risk - Restricted Cash and cash equivalents and Liquidity Risk - Restricted Cash and cash equivalents.**

### **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 a provision for that portion which may not be collectible.

The primary risks related to trade receivables are credit risk and market risk. For a description of these risks, please refer to **Credit Risk – Trade Receivables and Market risk - Foreign Currency Risk.**

### **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.

Securities held in custody by CDS for participants and associated non-cash entitlement transactions on these securities are not financial assets of the corporation nor do these transactions give rise to a contractual or constructive obligation. All cash dividends, interest, and other cash distributions received by the corporation on securities held in custody awaiting distribution are recognized as an asset and offsetting liability as these amounts are ultimately owed to participants.

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 **Credit Risk – CDS, Other Market Price Risk – CDS, Market Risk - Foreign Currency Risk, Liquidity Risk - Balances with Clearing members and participants, Liquidity Risk - New York Link service - CDS and Liquidity Risk - Credit and liquidity facilities - Clearing operations.**

### **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 Clearing Members and participants. 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**

In February 2012, CDCC launched the clearing of 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 **Credit Risk - CDCC, Other Market Price Risk - CDCC, Liquidity Risk - Balances with Clearing members and participants and Liquidity Risk - Credit and liquidity facilities - Clearing operations.**

## **Commercial Paper**

TMX Group maintains a Commercial Paper Program to offer potential investors up to \$500.0 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.

In connection with the Amended and Restated Credit Agreement (see **Credit Facility**), we increased the authorized limit of the Commercial Paper program from \$400.0 million to \$500.0 million on May 4, 2016.

The Commercial Paper issued represents an unsecured obligation and ranks equally with all other senior unsecured obligations of TMX Group. The Commercial Paper has been assigned a rating of “R-1 (low)” with a Stable trend by DBRS.

The Commercial Paper is subject to market risk and liquidity risk. For a description of these risks, please refer to **Market Risk – Interest Rate Risk - Commercial Paper and Debentures, Market Risk - Foreign Currency Risk and Liquidity Risk - Commercial Paper, Debentures and Credit Facility.**

## **Debentures**

TMX Group has the following Debentures outstanding: a \$400-million principal amount Series A Debentures with a 3.253% coupon and a five-year term, a \$250-million Series B Debentures with a 4.461% coupon and a 10-year term, and a \$300.0-million principal amount Series D Debentures with a 2.997% coupon and a seven-year term. The Debentures received and maintain a credit rating of A (high) with a Stable trend from DBRS. The fair value of the Debentures was obtained using market prices as inputs.

On October 3, 2018, the Series A Debentures of \$400-million will mature.



The Debentures are subject to market risk and liquidity risk. For a description of these risks, please refer to **Market Risk – Interest Rate Risk - Commercial Paper and Debentures and Liquidity Risk - Commercial Paper, Debentures and Credit Facility**.

### **Interest Rate Swaps (IRS)**

We have an IRS in place to economically hedge the issuance of commercial paper starting on October 3, 2016 (see **Commercial Paper, Debentures, Credit and Liquidity Facilities – Interest Rate Swaps**). We mark to market the fair value of the IRS, which is determined by using observable market information. At December 31, 2017, the fair value of the IRS was an asset of \$1.1 million. There was a charge of \$0.1 million to net income for the year ended December 31, 2017, representing the net amount of interest paid. The counterparty on this IRS is a major Canadian chartered bank. As this IRS was not designated as a hedge for accounting purposes, it is possible that there will be fluctuations in net income as we mark to market the fair value of this IRS each quarter until maturity.

IRSs are subject to credit risk. For a description of this risk, please refer to **Credit Risk – Interest Rate Swaps (IRS)**.

## **CRITICAL ACCOUNTING ESTIMATES**

### ***Goodwill and Intangible Assets – Valuation and Impairment Testing***

We recorded goodwill and intangible assets valued at \$5,067.6 million as at December 31, 2017, up by \$747.8 million from \$4,319.8 million at December 31, 2016, largely reflecting the acquisition of goodwill and intangible assets associated with Trayport, a world-leading provider of technology solutions for energy traders, brokers and exchanges. On December 14, 2017, we completed this acquisition. We have conducted a preliminary purchase price allocation and intend to finalize the allocation within twelve months following the acquisition date. 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 recognized at cost less accumulated amortization, where applicable, and any impairment in value. Cost includes any expenditure that is directly attributable to the acquisition of the asset. The cost of internally developed assets includes the cost of materials and direct labour, and any other costs directly attributable to bringing the assets to a working condition for their intended use.

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 goodwill and intangible 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.

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 recoverable amount of an asset or CGU is based on the higher of the value in use or fair value. 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.

An impairment loss is recognized if the carrying amount of an asset, or its CGU, exceeds its estimated recoverable amount. Impairment losses recognized in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit on a pro rata basis. Impairment losses along with any related deferred income tax effects are recognized in the consolidated income statement.

There was an impairment loss related to goodwill and intangible assets of \$6.5 million for the year ended December 31, 2017 (See **Results of Operations - Impairment Charges**).

Considerable judgement is required to evaluate the impact of operating performance and macroeconomic changes and to estimate cash flows. Disruptions to our business and economic weakness including a continued decline in the resource sector, could result in further impairment charges related to goodwill and intangible assets. A further significant impairment charge in the future could have a significant impact on our reported net income.

### ***Capital Formation – Listings***

In 2017, management updated its growth projections. Based on current assumptions, the recoverable amount for the Listings CGU remains above carrying value, and as such no impairment has been identified. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount. Changes in these assumptions that would cause the carrying value to equal the recoverable amount are a 3.5% increase in the pre-tax discount rate, a 5.8% reduction in the terminal growth rate, or a 22.7% decrease in cash flow.

### ***Capital Markets - Equities Trading***

In 2017, management updated its growth projections. Based on current assumptions, the recoverable amount for Equity Trading remains above carrying value, and as such no impairment has been identified. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount. Changes in these assumptions that would cause the carrying value to equal the recoverable amount are a 7.7% increase in the pre-tax discount rate, a 16.0% reduction in the terminal growth rate, or a 38.8% decrease in cash flow.

### ***Capital Markets - CDS***

In 2017, management updated its growth projections. Based on current assumptions, the recoverable amount for the CDS CGU remains above carrying value, and as such no impairment has been identified. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount. Changes in these assumptions that would cause the carrying value to equal the recoverable amount are a 17.1% increase in the pre-tax discount rate, a 60.2% reduction in the terminal growth rate, or a 65.3% decrease in cash flow.

### ***Global Solutions, Insights & Analytics - TMX Datalinx and TMX Analytics***

In 2017, management updated its growth projections. Management has determined that the Datalinx/Analytics CGU may be subject to a reasonably possible change to one or more of the key assumptions used to determine the recoverable amount, which could cause this CGU to become impaired. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount. Changes in these assumptions that would cause the carrying value to equal the recoverable amount are a 0.8% increase in the pre-tax discount rate, a 1.2% reduction in the terminal growth rate, or a 5.9% decrease in cash flow.

### ***Derivatives Trading and Clearing - MX/CDCC***

In 2017, management updated its growth projections. Based on current assumptions, the recoverable amount for Derivatives remains above carrying value, and as such no impairment has been identified. Management has identified three key assumptions, the pre-tax discount rate, the terminal growth rate, and the cash flow projections, that have a significant impact on the estimate of the recoverable amount. Changes in these assumptions that would cause the carrying value to equal the recoverable amount are a 2.5% increase in the pre-tax discount rate, a 3.4% reduction in the terminal growth rate, or a 26.1% decrease in cash flow.

### ***Other - AgriClear***

Launched in 2015, AgriClear is an online transaction platform and payment service for U.S. and Canadian cattle buyers and sellers. In 2016, management updated its growth projections for AgriClear as we re-assess the tactical plan for this business, and determined the recoverable value of AgriClear was below its carrying value, which resulted in an impairment charge of \$3.6 million. In 2017 we took a further goodwill impairment charge of \$1.7 million, which brought the carrying value of AgriClear to zero, and a product impairment charge of \$1.7 million (\$1.2 million after tax).

## **SELECT ANNUAL AND QUARTERLY FINANCIAL INFORMATION**

Certain comparative figures have been reclassified in order to conform with the financial presentation adopted in the current year. On December 14, 2017, we completed the sale of NGX and Shorcan Energy. TMX Group has classified the sale of NGX and Shorcan Energy as discontinued operations. Prior to the sale, the operations of NGX and Shorcan Energy entirely comprised of the *Energy Trading and Clearing* operating segment and a small portion of the *Global Solutions, Insights and Analytics* operating segment.

The classification of discontinued operations occurred at December 14, 2017 which is the date of disposal of the operations. Accordingly, TMX Group has re-presented the comparative consolidated income statements to show the discontinued operations separately from continuing operations.

## Select Annual Information

(in millions of dollars except per share amounts)	2017	2016	2015
Revenue	\$ 668.9	\$ 683.7	\$ 662.7
Net income before discontinued operations	191.2	180.0	(70.8)
Net Income/(loss) attributable to TMX Group shareholders	368.0	196.4	(52.3)
Total assets (as at December 31)	25,624.8	22,204.1	17,017.4
Non-current liabilities (as at December 31)	1,433.3	1,547.1	1,536.0
Earnings per share - before discontinued operations <sup>44</sup>			
Basic	3.46	3.31	(1.30)
Diluted	3.43	3.30	(1.30)
Earnings (loss) per share: <sup>45</sup>			
Basic	6.66	3.60	(0.96)
Diluted	6.60	3.58	(0.96)
Adjusted earnings per share: <sup>46</sup>			
Basic	4.69	4.49	3.64
Diluted	4.65	4.47	3.64
Cash dividends declared per common share	1.95	1.65	1.60

### 2017 compared with 2016

(See **RESULTS OF OPERATIONS** and **LIQUIDITY AND CAPITAL RESOURCES - Year ended December 31, 2017 compared with Year ended December 31, 2016**)

### 2016 compared with 2015

#### **Revenue**

Revenue for 2016 was up \$21.0 million compared with 2015. There were increases in all revenue categories with the exception of *Global Solutions, Insights and Analytics* due to a decline in Razor Risk revenue, and *Other* revenue. The decrease in *Other* revenue was primarily due to recognizing net foreign exchange losses on U.S. dollar and other non-Canadian denominated net monetary assets in 2016 compared with net foreign exchange gains in 2015.

#### **Net income/loss attributable to TMX Group Shareholders, Earnings per share and Adjusted earnings per share**

Net income attributable to TMX Group shareholders in 2016 was \$196.4 million, or \$3.60 per common share on a basic basis and \$3.58 per common share on a diluted basis, compared with a net loss of \$52.3 million, or \$0.96 per common share on a basic and diluted basis, for 2015. In 2015, there was a net loss attributable to TMX Group shareholders driven by non-cash impairment charges related to Capital Formation (Listings), Equity Trading and Derivatives (BOX) and other assets of \$221.7 million (\$200.0 million after tax, net of NCI). In 2016, we recorded impairment charges of \$8.9 million (\$8.9 million after tax) relating to TMX Atrium and AgriClear. The increase in net income in 2016 over 2015 also reflected

<sup>44</sup> Earnings per share information is based on net income attributable to TMX Group shareholders, discontinued operations include NGX and Shorcan Energy.

<sup>45</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

<sup>46</sup> Adjusted earnings per share includes discontinued operations, net of gain on sale of NGX and Shorcan Energy, and is a non-IFRS measure. See discussion under the heading "Non-IFRS Financial Measures".

higher revenue, lower operating expenses before strategic re-alignment expenses and slightly lower strategic realignment expenses. During 2016, we recorded a non-cash income tax adjustment relating to a change in the Quebec corporate income tax rate of approximately \$3.2 million, which reduced income tax expense whereas in 2015 we recorded a similar non-cash income tax adjustment of approximately \$7.1 million relating to a change in the Alberta corporate income tax rate, which increased income tax expense. In addition, we incurred lower net finance costs in 2016 compared with 2015.

Adjusted diluted earnings per share increased by 23% from \$3.64 in 2015 to \$4.47 in 2016. The increase in adjusted diluted earnings per share reflected higher revenue and lower operating expenses, before strategic re-alignment expenses, excluding amortization of intangibles related to acquisitions. In addition, we incurred lower net finance costs in 2016 compared with 2015. (See **2015 MD&A for a reconciliation of Earnings per share to Adjusted earnings per share**)

## **Total assets**

Our consolidated balance sheet as at December 31, 2016 includes outstanding balances on open REPO agreements within *Balances with Clearing Members and Participants*. These balances have equal amounts included within Total Liabilities. The increase in Total Assets of \$5,184.0 million from December 31, 2015 to December 31, 2016 was largely attributable to the significant increase in clearing of REPO agreements by CDCC in 2016 compared with 2015. *Balances with Clearing Members and Participants* relating to CDCC were \$14,741.3 million at December 31, 2016 compared with \$10,731.9 million at December 31, 2015.

## **Non-current liabilities**

Non-current liabilities at December 31, 2016 was essentially unchanged from December 31, 2015.

## QUARTERLY FINANCIAL INFORMATION

(in millions of dollars except per share amounts - unaudited)	Dec 31 2017	Sept 30 2017	Jun 30 2017	Mar 31 2017	Dec 31 2016	Sept 30 2016	Jun 30 2016	Mar 31 2016
Capital Formation	\$49.4	\$43.0	\$51.6	\$44.8	\$46.6	\$45.9	\$51.8	\$38.6
Equities and Fixed Income Trading	25.2	22.9	26.8	29.2	26.5	23.7	26.5	25.6
Equities and fixed Income - clearing, settlement, depository and other services (CDS)	20.4	18.7	19.9	19.0	18.2	17.4	18.1	17.5
Derivatives Trading & Clearing	27.6	27.7	31.4	28.1	28.4	27.2	30.4	31.5
Global Solutions, Insights and Analytics	48.3	41.6	46.3	50.3	53.2	51.9	52.2	51.0
Other	—	(2.0)	(1.0)	(0.2)	2.0	0.3	0.8	(1.4)
Revenue	170.9	151.9	175.0	171.2	174.9	166.4	179.8	162.8
Operating expenses before acquisition costs and strategic re-alignment expenses	87.1	84.1	89.6	95.8	96.1	93.6	97.4	96.4
Income from operations before acquisition costs and strategic re-alignment expenses <sup>47</sup>	83.8	67.8	85.4	75.4	78.8	72.8	82.4	66.4
Acquisition costs	13.4	0.4	—	—	—	—	—	—
Strategic re-alignment expenses	—	—	—	—	—	17.7	2.0	1.3
Income from operations <sup>48</sup>	70.4	67.4	85.4	75.4	78.8	55.1	80.4	65.1
Net income before discontinued operations	41.2	46.6	62.5	43.3	47.6	36.5	54.0	42.8
Net income from discontinued operations, net of tax	161.1	5.4	4.0	4.0	5.0	2.7	4.3	3.5
Net Income (loss) attributable to TMX Group shareholders	202.3	52.0	66.5	47.3	52.6	39.2	58.3	46.3
Earnings per share - before discontinued operations <sup>49</sup>								
Basic	0.74	0.84	1.13	0.79	0.87	0.67	0.99	0.79
Diluted	0.74	0.84	1.12	0.78	0.86	0.67	0.99	0.79
Earnings per share: <sup>50</sup>								
Basic	3.65	0.94	1.20	0.86	0.96	0.72	1.07	0.85
Diluted	3.63	0.93	1.19	0.85	0.95	0.72	1.07	0.85

<sup>47</sup> See discussion under the heading "Additional IFRS Financial Measures".

<sup>48</sup> See discussion under the heading "Additional IFRS Financial Measures".

<sup>49</sup> Earnings per share information is based on net income attributable to TMX Group shareholders, discontinued operations include NGX and Shorcan Energy Brokers Inc.

<sup>50</sup> Earnings per share information is based on net income attributable to TMX Group shareholders.

## Review of Fourth Quarter Results

### Q4/17 compared with Q4/16

- *Revenue* was \$170.9 million in Q4/17, down \$4.8 million from Q4/16 reflecting a decrease in *Global Solutions, Insights and Analytics* due to decreases in TMX Atrium (sold April 30, 2017) of \$6.7 million, and Razor Risk (sold December 31, 2016) of \$1.4 million. There were also decreases in *Equities and Fixed Income Trading, Derivatives Trading and Clearing*, and *Other*. These decreases were partially offset by increases in *Capital Formation*, and *CDS* revenue.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q4/17 decreased by 8.9 million from Q4/16 reflecting reduced expenses related to Razor Risk (sold December 31, 2016) and TMX Atrium (sold April 30, 2017) of approximately \$2.2 million and \$8.3 million respectively. There were also lower *Compensation and benefit* costs partially offset by higher occupancy and marketing spend.
- *Net Income attributable to TMX Group shareholders* in Q4/17 was \$202.3 million or \$3.46 per common share on a basic and \$3.43 on a diluted basis, compared with net income of \$52.6 million, or \$0.96 per common share on a basic and \$0.95 on a diluted basis in Q4/16. There was a gain on the sale of NGX and Shorcan Energy of approximately \$157.8 million after-tax and a gain on the FX forward in Q4/17.
- *In Q4/17, Cash flows from operating activities* decreased compared with Q4/16 reflecting a decrease in income from operations (excluding depreciation and amortization) net of acquisition costs.
- *In Q4/17, Cash flows from financing activities* were higher than in Q4/16 when we used cash in financing activities. During Q4/16, we used \$350.0 million in cash when we repaid our Series C Debentures whereas in Q4/17 there was an increase in cash following the issuance of \$300.0 million in Series D Debentures. The impact of this \$650.0 million increase in cash was partially offset by a net reduction in the issuance of Commercial Paper of almost \$170.0 million.
- *In Q4/17, there was an increase in Cash flows used in investing activities* compared with Q4/16 reflecting a cash outflow of \$613.5 million related to the purchase of Trayport. In addition, there was an increase in cash outlays for additions to premises and equipment and intangible assets. These cash outflows were partially offset by a net sale of marketable securities in Q4/17 compared with a net purchase of marketable securities in Q4/16.

### Q4/17 compared with Q3/17

- *Revenue* was \$170.9 million in Q4/17, up \$18.4 million from Q3/17 reflecting increases in almost all segments including Trayport revenue of \$4.5 million in the *Global Solutions, Insights and Analytics* segment.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* were up in Q4/17 compared with Q3/17 reflecting operating costs from Trayport, a write down of assets, higher external fees as well as increased marketing and occupancy costs. The increases were partially offset by lower severance costs and reduced depreciation and amortization.
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* increased from Q3/17 to Q4/17 due to higher revenue partially offset by higher operating expenses.
- *Net Income attributable to TMX Group shareholders* in Q4/17 was \$202.3 million or \$3.46 per common share on a basic and \$3.43 on a diluted basis, compared with net income of \$52.0 million, or \$0.94 per common share on a basic and \$0.93 on a diluted basis in Q3/17. There was a gain on the sale of NGX and Shorcan Energy of approximately \$157.8 million and a gain on the FX forward in Q4/17.

### **Q3/17 compared with Q2/17**

- *Revenue* in Q3/17 decreased over Q2/17 reflecting decreases in *Capital Formation, CDS, Derivatives Trading and Clearing, Equities and Fixed Income Trading* as well as *Global Solutions, Insights and Analytics* revenue, including approximately \$2.3 million related to TMX Atrium (sold April 30, 2017).
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q3/17 decreased by \$5.5 million from Q2/17 largely reflecting lower overall *Compensation and benefits* costs, reduced infrastructure spending, lower *Depreciation and amortization* costs and reduced expenses of approximately \$2.0 million from TMX Atrium (sold April 30, 2017).
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* decreased from Q2/17 to Q3/17 due to the lower revenue partially offset by lower operating expenses.
- *Net income attributable to TMX Group shareholders* for Q3/17 was \$51.9 million, or \$0.94 per common share on a basic basis and \$0.93 on a diluted basis, compared with net income of \$66.5 million, or \$1.20 per common share on a basic basis and \$1.19 on a diluted basis, for Q2/17 reflecting significantly lower revenue partially offset by lower operating expenses and lower net finance costs. In addition, for Q2/17, there was a \$2.4 million increase in deferred income tax assets from a capital loss carryback, which reduced income tax expense and net income.

### **Q2/17 compared with Q1/17**

- *Revenue* in Q2/17 increased over Q1/17 reflecting increases in *Capital Formation, CDS, and Derivatives Trading and Clearing* revenue. This was somewhat offset by decreases in *Equities and Fixed Income Trading* as well as *Global Solutions, Insights and Analytics* revenue, including approximately \$4.5 million related to TMX Atrium (sold April 30, 2017).
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q2/17 decreased by \$6.2 million from Q1/17 largely reflecting lower expenses of approximately \$5.5 million from TMX Atrium (sold April 30, 2017).
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* increased from Q1/17 to Q2/17 reflecting both higher revenue and lower operating expenses.
- *Net income attributable to TMX Group shareholders* for Q2/17 was \$66.5 million, or \$1.19 per common share on a diluted basis, compared with net income of \$47.3 million, or \$0.85 per common share on a diluted basis, for Q1/17 reflecting higher revenue, lower operating expenses, lower net finance costs and a \$2.4 million increase in deferred income tax assets from a capital loss carryback. In addition, during Q1/17, net income was reduced by a non-cash income tax adjustment of \$2.9 million relating to the write off of deferred income tax assets and a non-cash impairment charge of \$4.8 million, both amounts related to TMX Atrium.

### **Q1/17 compared with Q4/16**

- *Revenue* in Q1/17 decreased over Q4/16 reflecting decreases in *Capital Formation* and *Global Solutions, Insights and Analytics* revenue, including \$1.4 million related to Razor Risk in Q4/16. This is somewhat offset by an increase in *Equities and Fixed Income Trading* revenue.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q1/17 were essentially unchanged from Q4/16 reflecting increased *Compensation and benefits* expenses, offset by lower *Depreciation and Amortization*. The increase in *Compensation and benefits* expenses reflected higher payroll taxes in Q1/17 compared with Q4/16, partially offset by lower Razor Risk expenses (sold December 31, 2016). Both *Information and trading systems* costs as well as *Selling, general and administration* expenses remained essentially flat.
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* decreased from Q4/16 to Q1/17 reflecting the lower revenue.
- *Net income attributable to TMX Group shareholders* for Q1/17 was \$47.3 million, or \$0.85 per common share on a diluted basis, compared with net income of \$52.6 million, or \$0.95 per common share on a basic and diluted



basis, for Q4/16 reflecting the lower revenue, impairment charges related to TMX Atrium, and the write off of deferred income tax assets related to businesses being sold.

### **Q4/16 compared with Q3/16**

- *Revenue* in Q4/16 increased over Q3/16 reflecting increases in *Equities and Fixed Income Trading, CDS, Derivatives Trading and Clearing*, as well as in *Capital Formation, Global Solutions, Insights and Analytics* and *Other* revenue.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q4/16 increased by 3% compared with Q3/16 reflecting an increase in *Selling, general and administration* expenses including commodity taxes and external fees, mainly related to clearing house platform consolidation, offset by lower occupancy costs. The increase was partially offset by a sequential decline in *Information and trading systems* expenses as we wrote-off of \$2.8 million in costs related to discontinued products in Q3/16. *Compensation and benefits* costs declined slightly as lower costs from reduced headcount were partially offset by other *Compensation and benefits* expenses including those related to higher long-term employee performance incentive plan costs.
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* increased from Q3/16 to Q4/16 reflecting the higher revenue somewhat offset by slightly higher operating expenses before strategic re-alignment expenses. *Income from operations* was higher in Q4/16 compared with Q3/16 due to the increase in revenue and significant decrease in strategic re-alignment expenses including severance costs related to the initiative we announced in September 2016.
- *Net income attributable to TMX Group shareholders* for Q4/16 was \$52.6 million, or \$0.95 per common share on a diluted basis, compared with net income of \$39.2 million, or \$0.72 per common share on a basic and diluted basis, for Q3/16 reflecting the higher revenue and significantly lower strategic re-alignment expenses.

### **Q3/16 compared with Q2/16**

- *Revenue* in Q3/16 decreased over Q2/16 reflecting lower revenue from *Derivatives Trading and Clearing*, following the de-consolidation of revenue from BOX effective July 1, 2016. The net reduction in *Derivatives Trading and Clearing* revenue related to BOX from Q2/16 to Q3/16 was \$2.7 million. There was also a reduction in *Capital Formation as well as in Equities and Fixed Income Trading and CDS* revenue reflecting less active equity market conditions compared with Q2/16. *Global Solutions, Insights and Analytics* revenue also declined from Q2/16 to Q3/16.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q3/16 decreased by 4% compared with Q2/16 reflecting the exclusion of operating expenses related to BOX when we ceased to consolidate BOX's results from operations and reduction in costs attributable to overall lower headcount. There were also reduced commodity tax and marketing expenses in Q3/16 compared with Q2/16. These decreases in expenses were somewhat offset by higher employee performance incentive plan costs and higher overall *Information and trading systems* expenses partially attributable to the write-off of \$2.8 million in costs related to discontinued products.
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* decreased from Q2/16 to Q3/16 reflecting the lower revenue somewhat offset by lower operating expenses before strategic realignment expenses. *Income from operations* was significantly lower in Q3/16 compared with Q2/16 due to the increase in strategic re-alignment expenses including severance costs related to the initiative we announced in September 2016.
- *Net income attributable to TMX Group shareholders* for Q3/16 was \$39.2 million, or 72 cents per common share on a basic and diluted basis, compared with net income of \$58.3 million, or \$1.07 per common share on a basic and diluted basis, for Q2/16 reflecting the lower revenue and higher strategic re-alignment expenses.

## Q2/16 compared with Q1/16

- *Revenue* in Q2/16 increased over Q1/16 reflecting higher revenue from *Capital Formation* (largely additional listing fees), *Global Solutions, Insights and Analytics, Equities and Fixed Income Trading and CDS*, as well as *Other* revenue, somewhat offset by a decline in *Derivatives* revenue. The increase in *Other* revenue was primarily due to recognizing lower net foreign exchange losses on U.S. dollar and other non-Canadian denominated net monetary assets in Q2/16 compared with Q1/16.
- *Operating expenses before acquisition costs and strategic re-alignment expenses* for Q2/16 were essentially unchanged compared with Q1/16. Higher employee performance incentive plan costs and increased *selling, general and administration costs*, including higher marketing costs, essentially offset lower *compensation and benefits* costs related to reduced payroll taxes and a higher capitalization of labour costs in Q2/16 compared with Q1/16.
- *Income from operations before acquisition costs and strategic re-alignment expenses* and *Income from operations* increased from Q1/16 to Q2/16 reflecting the higher revenue.
- *Net income attributable to TMX Group shareholders* for Q2/16 was \$58.3 million, or \$1.07 per common share on a basic and diluted basis, compared with net income of \$46.3 million, or 85 cents per common share on a basic and diluted basis, for Q1/16 reflecting the higher revenue.

## ENTERPRISE RISK MANAGEMENT

TMX Group's operating subsidiaries provide essential services to the Canadian capital and global commodity markets and effectively managing risk is fundamental to our ability to provide products and services to our clients. In providing the products and services to our clients, we undertake activities that expose us to various risks. The objective of enterprise risk management (ERM) is to ensure that the outcomes of these risk-taking activities across the enterprise are transparent and understood, materially consistent with our objectives and risk appetite, and appropriately balance risk and reward.

We have identified a number of principles which guide our management of risks. These include 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 (*first line of defence*) own all risks assumed in their activities and are accountable for the effective management of those risks, supported by the risk management (*second line of defence*) and internal audit (*third line of defence*) divisions. We adequately define responsibilities and levels of authority for risk-taking across the enterprise.
- We employ effective and consistent risk management processes across the enterprise to ensure risks are transparent and remain within our approved risk appetite.
- We employ sufficient resources and effective tools, methods, models and technology to support risk management processes.
- Our ERM reflects industry standards, legal and regulatory requirements and is regularly reassessed.

## Risks and Uncertainties

The Risk Management Committee (RMC), a management committee of TMX Group, has established a list of Key Enterprise Risks (KERs) that it believes are the most significant risks that TMX Group is exposed to. The RMC undertakes a formal review of these KERs at least annually by evaluating the impact and likelihood of each risk after taking into account known

mitigations and established internal controls. These KERs are evaluated against TMX Group's risk appetite. The RMC also discusses any new or emerging risks that should be considered. These KERs are grouped under one of the risk categories of strategic, financial, operational as well as legal and regulatory.

The risks and uncertainties described below are not the only ones facing TMX Group. Additional risks and uncertainties not presently known to us or that we currently believe are 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 materially adversely affected.

## **Strategic Risks**

### ***Competition Risk***

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

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

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

While some Canadian issuers seek a listing on another major North American or international exchange, historically, the vast majority of these issuers also list on TSX or TSXV and do not bypass our markets. We also compete with institutions and various market participants that offer alternative forms of financing including private equity, venture capital and various forms of debt financing.

In addition, crowdfunding, a new way for start-ups and SMEs to raise capital through small amounts of money raised from a large number of investors over the internet via an internet portal intermediary, is emerging. Similarly, Initial Coin Offerings (ICOs) are emerging as an alternative way to raise capital via a tokenized form of asset or currency.

#### ***Toronto Stock Exchange, TSX Venture Exchange and TSX Alpha Exchange face competition from other exchanges, other marketplaces and trading mechanisms***

We face competition for business from other exchanges, especially those in the U.S. as they continue to consolidate and investing becomes more global. In particular, these competitors could look to attract Canadian issuers that are listed on one of our exchanges. For example, one of our U.S.-based competitors has acquired a Canadian ATS that has the second largest market share in Canadian equities trading and has since commenced the process towards obtaining exchange status to enable it to compete for listings in Canada. It is possible that this competitor could, in addition to competing for listing and trading of Canadian issuers, enter into other business areas in which we currently operate including the trading of other asset classes or areas under our Capital Formation, Derivatives or Global Solutions, Insights and Analytics segments.

In addition, the variety of other marketplaces and trading venues in the U.S. that trade Canadian securities, including dark markets and internalization facilities, places increasing competitive pressure on our business. For example, some market participants in the U.S., known as wholesalers, are currently able to pay our customers for order flow under U.S. securities laws and regulations. This practice is not permitted in Canada, and therefore puts us at a competitive disadvantage. IIROC published guidance and a technical notice to clarify the requirements for investment dealers when orders in Canadian-listed securities are executed away from Canadian markets, an important step in IIROC's approach to addressing concerns about the routing of orders to the U.S. If we are unable to continue to provide competitive trade execution, the volume traded in all interlisted issuers on our equity exchanges could decrease in the future and adversely affect our operating results. Our combined market share (including TSX, TSXV, and Alpha) of the total volume traded in Canadian based interlisted issues was approximately 30% in 2017, compared with approximately 32% in 2016. 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 with the establishment of ATSS in Canada. Technological advances have lowered barriers to entry and have created a multiple marketplace environment for trading TSX and TSXV listed securities. There are currently 14 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 69%<sup>51</sup> in 2017, down from 71% in 2016. Excluding intentional crosses, in all listed issues in Canada, our combined domestic equities trading market share was 63% in the year ended December 31, 2017, down from 69% in the year ended December 31, 2016.

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 data and analytics 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 competitively. 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 also offering inverted pricing 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***

While MX is the only financial derivatives exchange offering standardized products and CDCC the only clearing house headquartered in Canada, their various component activities are exposed. MX already competes with, among others, options and other derivatives exchanges as well as the OTC market. This competition 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 exemption orders from regulators to operate as clearing agencies. For example, in 2013, Canada's central bank designated SwapClear, a

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<sup>51</sup> Source: IIROC

global system for clearing over-the-counter interest rate swaps, as subject to its regulatory oversight, citing the potential to pose systemic risk to the Canadian financial system. SwapClear is operated by LCH, a U.K.-based company that operates several central counter-party services.

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, eliminating challenges end customers may face in obtaining clearing agent services from banks.

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

### ***Shorcan faces competition from OTC markets and other sources***

Shorcan has several competitors in the fixed income IDB market. If Shorcan fails to attract institutional dealer order flow from this market, it would adversely affect its operating results.

### ***Global Solutions, Insights & Analytics***

With the advent of a multi-marketplace environment in Canada, we face competition in market data and analytics, from other trading venues and vendors. Market data is generated from trading activity and the success of certain data products is linked to maintaining order flow.

### ***Economic Risk***

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

### ***We depend on the economy of Canada***

Our financial results are, and continue to be affected by the Canadian economy, including by commodity prices in the resource sector, and especially fluctuations in the price for crude oil. Any prolonged economic downturn could have a significant negative impact on our business. If the profit growth of Canadian-based companies is generally lower than the profit growth of companies based in other countries, the markets on which those other issuers are listed may be more attractive to investors than our equity exchanges. A prolonged economic downturn may also have a negative impact on investment performance, which could materially adversely affect the number of issuers and new listed issuers, the market capitalization of our listed issuers, additional securities being listed or reserved, trading volumes across our markets, the number of transactions related to our equity and fixed income clearing and settlement, depository, custodial and entitlement services and market data sales.

### ***Our operating results may be adversely impacted by global economic conditions***

The economic and market conditions in Canada, the United States, Europe, China and the rest of the world impact the different aspects of our business and our revenue drivers. In particular, lower commodity prices, including fluctuations in the price for crude oil, can, and has, negatively impacted our business. Changes in the economic and political climate in the United States, including potential changes relating to NAFTA, could impact our business. In addition, increased

uncertainty in Europe, including the impact of Brexit and the possibility of sovereign defaults on debt, can also impact our business. Because listing, 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 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, prolonged negative economic conditions 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. In addition, a low-volatility environment can result in lower levels of trading, particularly for derivative products.

### ***We depend on market activity that is outside of our control***

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

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

- the overall economic conditions and monetary policies in Canada, the United States, Europe, and in the world in general (especially growth levels, political stability and debt crisis);
- broad trends in business and corporate finance, including trends in the exchange industry, capital market trends and the mergers and acquisitions environment;
- the condition 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, including the regulation of marketplaces and other market participants, both in Canada and other jurisdictions;
- the relative activity and performance of global capital markets;
- investor confidence in the prospects and integrity of our listed issuers, and the prospects of Canadian-based listed issuers in general;
- pricing volatility of global commodities and energy markets; and
- changes in tax legislation that would impact the relative attractiveness of certain types of securities, or listing in certain countries.

We may be able to indirectly influence the volume of trading by providing efficient, reliable and low-cost trading; 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 and trading facilities. However, those activities may not have a positive effect on or effectively counteract the factors that are outside of our control.

### ***Strategic Planning Risk***

We are exposed to the risk that poorly planned strategy and change initiatives reduce the probability of successful organizational transformation.

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

Our strategic planning process includes a thorough analysis of the environment in which we operate as well as significant peer and competitive analysis. It is possible that we may not identify or respond to opportunities or threats in our industry despite the investment of time and resources in this process.

### ***Execution Risk***

We are exposed to the risk that we lack capabilities or fail to prioritize initiatives to deliver against our strategy and objectives in an efficient and effective manner.

#### ***We may not be successful in executing our strategy***

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

#### ***New business activities may adversely affect income***

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

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

We continue to expand our operations internationally, including making acquisitions such as Trayport, opening offices and acquiring distribution, technology and other systems in foreign jurisdictions, 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:

- restrictions on the use of trading terminals or the contracts that may be traded;
- reduced protection for intellectual property rights;
- difficulties in staffing and managing foreign operations;
- potentially adverse tax consequences;
- enforcing agreements and collecting receivables through certain foreign legal systems; and



- foreign currency fluctuations for international business.

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

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

### **Commercial Risk**

We are exposed to the risk that we fail to promote and sell our products and services effectively resulting in loss of revenue.

#### ***Our exchanges depend on the development, marketing and acceptance of new products and services***

We are dependent to a great extent on developing and introducing new investment, trading and clearing products and services and their acceptance by the investment community. While we continue to review and develop new products and services that respond to the needs of the marketplace, we may not continue to develop successful new products and services or we may not effectively promote and sell our products and services. Our current offerings may become outdated or lose market favour before we can develop adequate enhancements or replacements. Other exchanges, ATSS or ECNs may introduce new products or services or enhancements that make our offerings less attractive. Even if we develop an attractive new product, we could lose trading activity to another marketplace that introduces a similar or identical offering which offers greater liquidity or lower cost. We also may not receive regulatory approval (in a timely manner or at all) for our new offerings. Any of these events could materially adversely affect our business, financial condition and operating results.

### **Integration/Divestitures Risk**

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

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

As part of our strategy to sustain growth, we have and expect to continue to pursue appropriate acquisitions of other companies and technologies. An acquisition will only be successful if we can integrate the acquired businesses' operations, products and personnel; retain key personnel; and expand our financial and management controls and our reporting systems and procedures to accommodate the acquired businesses. It is possible that integrating an acquisition could result in less management time being devoted to other parts of our core business. In addition, pursuant to the Final Recognition Orders<sup>52</sup>, 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.

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<sup>52</sup> Recognition orders issued by the securities regulators with respect to the Maple Transaction.



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

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

## **Operational Risks**

### ***Technology Risk***

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

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

We are extremely dependent on our information technology systems. Trading and data on our cash equities markets, trading and clearing on our derivatives and energy markets and clearing, settlement and depository activity for equities and fixed income securities are conducted exclusively on an electronic basis. SOLA, the MX proprietary trading system, is currently in use at BOX and other venues. In addition, we provide the technical operations services related to BOX's trading and surveillance platforms.

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

The current technological architecture for our cash equities, derivatives trading and clearing, and market data information technology systems may not effectively or efficiently support our changing business requirements.

We are continually improving our information technology systems so that we can handle 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 expenditures which may require us to expend significant amounts of resources in the future. System changes may introduce risk; while we have and 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***

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

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

Our networks and those of our third-party service providers, our POs and approved participants and our customers may be vulnerable to cyber risks, including unauthorized access, computer viruses, denial of service attacks, and other security issues. Persons who circumvent security measures could wrongfully use our information or cause interruptions or malfunctions in our operations which could damage the integrity of our markets and data provision, any of which could

have a material adverse effect on our business, financial condition and results of operations. We may be required to expend significant resources to protect against the threat of security breaches or to alleviate problems, including reputational harm and litigation, caused by any breaches. Although we intend to continue to implement industry-standard security measures, these measures may prove to be inadequate and result in system failures and delays that could lower trading volume and have a material adverse effect on our business, financial condition and results of operations.

### ***Geopolitical & External Disruption Risks***

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

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

The continuity of our critical business functions could be interrupted by geopolitical upheaval, including terrorist, criminal and political, or by other types of external disruptions, including human error, climate change, natural disasters, extreme weather, power loss, telecommunication failures, theft, sabotage and vandalism. Given our position in the Canadian capital markets, we may be more likely than other companies to be a target of such activities.

We have a series of integrated disaster recovery and business continuity plans for critical business functions to mitigate the risk of an interruption. We currently maintain duplicate facilities to provide redundancy and back-up to reduce the risk and recovery time of system disruptions for key systems. However, not all systems are duplicated, and any major disruption may affect our existing and back-up facilities. Any interruption in our key services could impair our reputation, damage our brand name, and negatively impact our financial condition and operating results.

### ***Talent Management Risk***

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

### ***We need to retain and attract qualified personnel***

Our success depends to a significant extent upon the continued employment and performance of a number of key management personnel whose compensation is partially tied to vested share options and long-term incentive plans that mature over time. The value of this compensation is dependent upon total shareholder return performance factors, which includes appreciation in our share price. The loss of the services of key personnel could materially adversely affect our business and operating results. We also believe that our future success will depend in large part on our ability to attract and retain highly skilled technical, managerial and marketing personnel. There can be no assurance that we will be successful in retaining and attracting the personnel we require.

### ***Critical Infrastructure Risk***

We are exposed to the risk that we fail to manage our trading, clearing and settlement infrastructure effectively, thereby exposing ourselves to systemic failure.

### ***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, as well as the services we provide to BOX; cause delays in settlement; cause us to lose data; corrupt our trading and clearing operations, data and records; or disrupt our business operations, including BOX's operations. This could undermine confidence in our exchanges and clearinghouses, materially adversely affect our reputation or operating results, and may

lead to customer claims, litigation and regulatory sanctions. Failure of CDS' systems could also affect other systemically important financial infrastructures such as the Large Value Transfer System operated by Payments Canada.

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

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

### ***Operations Risk relating to Transfer Agent and Corporate Trust Services Business***

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

The principal risks associated with the services and products offered by TSX Trust are operational in nature as TSX Trust does not lend money or trade in marketable securities. The most significant operational risks include securities issuance and transfers, corporate actions processing, disbursements, escrows, corporate trust and segregated accounts reconciliation activities. To mitigate these risks, the management has instituted a comprehensive set of internal controls, which are audited by an external party on at least an annual basis.

#### ***Model Risk***

We are exposed to the risk that our clearing and settlement risk models 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 ongoing internal controls to regularly assess the adequacy of the models. In addition, our clearinghouse risk models are subject to independent third-party vetting and validation thereby ensuring that those models continue to perform as they were originally designed to do. Failure of the models may result in under or over estimation of financial risk exposures and may create systemic risks.

#### ***Third Party Risk***

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

#### ***We depend on third-party suppliers and service providers***

We depend on a number of third parties, such as IIROC, 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. If a third party suffers an interruption in or stops providing services and we cannot

make suitable alternative arrangements, or if we fail to renew certain of our agreements on favourable terms or at all, our business, financial condition or operating results could be materially adversely affected.

### ***Client Concentration Risk***

#### ***We depend on an adequate number of clients***

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

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

During 2017, approximately 73% of our trading and related revenue, net of rebates, on TSX and approximately 65% of our trading and related revenue on TSXV were accounted for by the top ten POs on each exchange based on volumes traded.

Approximately 58% of CDS's revenue, net of rebates, in 2017 was accounted for by the top ten customers (excluding securities regulators).

Approximately 61% of MX and CDCC's trading and clearing revenue, net of rebates, in 2017 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 30, 2017.

#### ***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., regulate us, our exchanges, our clearing houses and certain of our other businesses. Regulators in other jurisdictions may regulate our future operations. Canadian regulators propose changes, including amendments to National Instruments, on an ongoing basis.

In Canada, our exchanges are regulated by certain provincial securities regulators. In addition, MX is recognized as an SRO in Québec. Shorcan is a registrant under the “exempt market dealer” category and has been approved by Investment Industry Regulatory Organization of Canada (IIROC) to act as an inter-dealer broker. TSX Trust has been granted the requisite trust licenses by the Office of the Superintendent of Financial Institutions (OSFI) and the provinces. Our clearing agencies are regulated by certain provincial securities regulators and CDS and CDCC are also subject to regulation and oversight by the Bank of Canada (BOC).

In the U.S., MX carries on certain activities as a Foreign Board of Trade (FBOT) in compliance with an Order of Registration issued by the Commodity Futures Trading Commission (CFTC). CDCC is subject to regulatory requirements of the SEC and various U.S. state securities regulators. Shorcan is registered as an introducing broker with the National Futures Association, which enforces CFTC reporting requirements for its members under the U.S. Commodity Exchange Act.

Outside the U.S. and Canada, MX is recognized as a foreign market in France and can undertake certain activities in Israel subject to the conditions listed in a no-action letter issued by the Israel Securities Authority. TSX Inc. has a representative office in China for TSX and TSXV, which is subject to regulation by the China Securities Regulatory Commission. CDCC has been recognized by the European Securities and Markets Authority as a foreign clearing house under European Market Infrastructure Regulation.

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. The Canadian Derivatives Clearing Service (CDCS), operated by CDCC, and CDSX, operated by CDS Clearing, have each been designated by the BOC as being of systemic importance under the Payment Clearing and Settlement Act (Canada). Under such designation, the BOC has broad powers relating to the regulation and oversight of CDS Clearing and CDCC.

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 act 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 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 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 relevant 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 on our businesses and operations. Changes in, and additions to, the rules affecting our exchanges and clearing houses 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 or to enter into new business areas. 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 central counterparties for cash and derivative markets, commodity markets, securities settlement systems and central securities depositories that are subject to the CPMI-IOSCO Principles for Financial Market Infrastructure (PFMIs) for these types of services, which are reflected in the requirements of such entities' regulators and applicable securities law including National Instrument 24-102 Clearing Agency Requirements. The ongoing implementation of PFMIs by regulators of these businesses will continue to impact the cost of regulatory compliance. In 2016, in compliance with the PFMIs and additional Canadian regulatory and oversight guidance, CDS Clearing and CDCC each adopted a recovery plan, to be applied in the event that the entity is unable to provide defined critical operations and services as a going concern. These recovery plans were filed with their respective Canadian regulators. In connection with the recovery plans, and if certain funding conditions are met, TMX Group agreed to provide certain limited financial support to CDS Clearing and CDCC, if necessary, in the context of a recovery.

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

### ***Our Recognition Orders impose significant regulatory constraints***

Under the Recognition Orders, we are subject to extensive regulation and regulatory oversight with respect to, among other things, fees, fee models, discounts and incentives. The Recognition Orders also impose significant regulatory constraints on our ongoing business. The additional regulatory and oversight provisions provided for in the Recognition Orders provide the applicable regulators with broad powers that could, depending on how such powers are exercised in the future, impose barriers or constraints that limit our ability to build an efficient, competitive organization, which could have a material adverse effect on our business, financial condition and results of operations.

With respect to the fees charged by all of our equity exchanges (TSX, Alpha, and TSXV), the Recognition Orders impose restrictions or prohibitions on certain types of fee discounts or incentives that such exchanges may provide, including discounts or incentives that are accessible only to a particular marketplace participant or class of marketplace participants. Such prohibitions and restrictions may limit the ability of our equity exchanges to introduce new products in the future or to introduce them on a timely basis, 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 must be revoked.

Changes to TSX and Alpha fees are filed for approval with the OSC at least seven business days before becoming effective. Fee changes for TSXV are filed for approval with the Alberta Securities Commission (ASC) and British Columbia Securities Commission (BCSC) at least seven business days in advance. Prior to becoming effective, changes to MX trading fees are filed with the AMF and the OSC at least seven business days in advance. It is possible that the AMF, OSC, BCSC or the ASC may require more time to review the fee filing, object, or require revisions to, the proposed fee changes.

In addition, changes to TMX Datalinx fees related to TSX, TSXV, Alpha and MX market data and co-location are filed with the OSC, BCSC, ASC and the AMF, as applicable, for approval, seven business days before becoming effective. It is possible that the regulators may require more time to review the fee filing, object, or require revisions to the proposed fee changes.

Prior to becoming effective, changes to CDCC fees are filed with the AMF and OSC.

With respect to CDS, under the applicable Recognition Orders certain fees charged by it and its subsidiaries are subject to prior approval of the applicable regulators. Under the CDS Recognition Orders granted by the OSC, AMF and BCSC, fees for services and products offered by certain CDS subsidiaries will be those fees in effect on November 1, 2011 (the 2012 base fees). We cannot adjust such fees without the approval of the OSC, AMF and BCSC. In addition, we may only seek approval for fee increases on clearing and other core CDS Clearing services (which services are outlined in the OSC and AMF Recognition Orders) where there has been a significant change from circumstances as at August 1, 2012, the effective date of the Recognition Orders, and approval may or may not be granted. Accordingly, even where costs may be rising in the future (including as a result of trading volumes falling), we would only be permitted to seek a fee increase on such services if we could establish to the applicable regulators that there has been a significant change. Under the CDS Recognition Orders the OSC and the AMF each have the right to require the applicable CDS entity to submit a fee, fee model or incentive that has been previously approved by the OSC and/or the AMF for re-approval. In such circumstances, if the OSC and/or AMF, as applicable, decide not to re-approve the fee, fee model or incentive, it must be revoked. Such constraints on the ability to amend CDS fees could have a material adverse impact on our business, financial condition and results of operations in the future. **(see OUR BUSINESS - CAPITAL MARKETS - Equities and Fixed Income Clearing, Settlement, Depository and Other Services - CDS.)**

We have incurred increased costs to comply with the additional 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 the Recognition Orders, prior regulatory approval is also required before we can implement changes to a number of aspects of our operations. This includes prior regulatory approval of (a) changes to internal cost allocation models and any transfer pricing between affiliated entities, (b) significant integration, combination or reorganization of businesses, operations or corporate functions between TMX Group entities, (c) non-ordinary course changes to TSXV's operations, and (d) any outsourcing of key services or systems by a marketplace. 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.

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

### **Intellectual Property Risk**



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

***We may be unable to protect our intellectual property***

To protect our intellectual property rights, we rely on a combination of trademark laws, copyright laws, patent laws, trade secret protection, confidentiality agreements, and other contractual arrangements with our affiliates, customers, strategic partners, and others. This protection may not be adequate to deter others from misappropriating our proprietary information. We may not be able to detect the unauthorized use of, or take adequate steps to enforce, our intellectual property rights. We have registered, or applied to register, our trademarks in Canada and in some other jurisdictions. 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 claim 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**

### ***Foreign Exchange***

We are exposed to the risk that future movements in exchange rates will adversely affect the valuation of our revenues, expenses, assets or liabilities (For details, see **Foreign Currency Risk under Market Risk section - Financial Risk Management**).

### ***Cost Structure Risk***

#### ***Our cost structure is largely fixed***

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.

### ***Market Event Risk***

#### ***Our derivatives and cash markets clearing businesses may be harmed by a systemic market event***

In the case of sudden, large price movements, certain market participants may not be able to meet their obligations to brokers who, in turn, may not be able to meet their obligations to their counterparties. The impact of such an event could have a material adverse effect on CDCC and CDS' businesses. In such cases, it could be possible that Clearing Members and/or participants default with CDCC and/or CDS. As referred to in the **Financial Risk Management – Credit Risk – CDS and Credit Risk – CDCC sections**, CDCC and/or CDS would use its risk management mechanisms to manage such a default. In extreme situations such as large-scale market price moves or multiple defaults occurring at the same time, all these mechanisms may prove insufficient and could result in significant losses.



## **Capital Structure Risk**

We are exposed to the risk that we fail to develop, implement and maintain the appropriate corporate finance model and capital structure.

We have approximately \$950 million of indebtedness and are subject to ongoing covenants under the Trust Indentures governing the Debentures and the terms of our Credit Facility and Commercial Paper Program.

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). Some, or all, of these restrictions could limit our flexibility to change our capital structure.

### ***The terms of our Credit Facility and Commercial Paper Program***

Our Credit Agreement requires us to satisfy and maintain an interest coverage ratio and a leverage ratio, among other covenants, including the timely payment of principal and interest when due. It is important that we meet all of the terms under our Credit Facility since it provides a 100% backstop to our Commercial Paper Program (see **Liquidity and Capital Resources - Commercial Paper, Debentures, Credit and Liquidity Facilities - Credit Facility**). Our ability to meet the financial ratios under the Credit Facility and other covenants, including the timely payment of principal and interest when due, under the Credit Agreement and Trust Indentures are dependent on our cash flows and earnings, level of indebtedness and other financial performance measures, which are affected by prevailing interest rates and general economic, market, financial, competitive, regulatory and other factors, such as the volume of securities traded on our equity markets, the number of transactions cleared and settled in our cash market clearing, settlement and depository services, the number of transactions, volume of contracts or products traded and cleared on our cash and derivatives markets, the number of new and additional listings on our equity markets, the number and market capitalization of listed issuers, the number of subscribers to market data, fee regulation by securities regulatory authorities, and increased competition from other exchanges and marketplaces, all of which are beyond our control, as well as on our ability to control our expenses.

Based on the current level of operations and anticipated growth, we believe that our cash flows from operations and our available cash are adequate to meet our current liquidity needs. However, we cannot guarantee that our businesses will generate sufficient earnings or cash flows from operations or that anticipated growth will be realized or that we will be able to control our expenses in an amount sufficient to enable us to satisfy the financial ratios and other covenants, or pay our indebtedness or fund our other liquidity needs. If we do not have sufficient funds, we may be required to renegotiate the terms of, restructure, or refinance all or a portion of our indebtedness on or before our stated maturity, reduce or delay capital investments and acquisitions, reduce or eliminate our dividends, or sell assets. Our ability to renegotiate, restructure, or refinance our indebtedness would depend on the condition of the financial markets and our financial condition at that time. Failure to comply with the financial ratios as well as covenants of the Credit Agreement could result in a default under the Trust Indentures, which, if not cured or waived, could result in TMX Group being required to repay outstanding borrowings under both the Credit Agreement and the Debentures before their due dates. In addition, an event of default under the Trust Indentures governing the Debentures that would result in an acceleration of maturity of the applicable series of Debentures could lead to an acceleration of the maturity of the Credit Agreement.

In addition, if we fail to comply or are reasonably likely to fail to comply with any financial covenant or ratio contained in any Final Recognition Order, such failure could result in a default under the Credit Agreement as well, if a governmental authority issues a decision or orders restrictions on us or any of our subsidiaries as a result of the non-compliance where a requisite majority of the lenders determine that the restrictions have or will have a material adverse effect as defined in the Credit Agreement. It will also be a default under the Credit Agreement if a governmental authority issues a decision or orders restrictions on our or any of our subsidiaries' ability to move cash or cash equivalents among TMX Group and our subsidiaries, where a requisite majority of the lenders determine that the restrictions have or will have a material adverse effect. If these events of default under the Credit Agreement were to result in an acceleration of maturity under the Credit Agreement, the event(s) could constitute an event of default under the Trust Indentures, which in turn would

result in the acceleration of maturity of the outstanding Debentures. If we are forced to refinance these borrowings on less favourable terms or cannot refinance these borrowings, our business, results of operations, and financial condition would be adversely affected.

***Our variable rate indebtedness subjects us to interest rate risk, which could cause our indebtedness service obligations to increase significantly / Our hedging arrangements could also increase indebtedness***

Borrowings under the Commercial Paper Program and Credit Agreement incur interest at variable rates and expose us to interest rate risk. If interest rates increase, our debt service obligations on our variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income and cash flows, including cash available for servicing the indebtedness, would correspondingly decrease. Although we have entered into various interest rate hedging arrangements to partially mitigate this risk, there is no assurance that such hedging arrangements will be effective. In addition, if interest rates decrease, we would accrue indebtedness in connection with these hedging arrangements, which may impact our ability to meet our financial ratios under the Credit Agreement. Our exposure to increases in variable interest rates on indebtedness is also somewhat mitigated by the fact that we hold cash and marketable securities at variable interest rates.

***Our ability to incur additional indebtedness could be impacted by adverse changes to our credit rating***

TMX Group has an issuer rating of A (high) from DBRS with a Stable trend. Our Debentures, including our Series D Debentures, have the same credit rating from DBRS with a Stable trend. The Commercial Paper has been assigned a rating of “R-1 (low)” with a Stable trend by DBRS.

DBRS 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.

***The shareholdings of the investors may adversely affect the liquidity of TMX Group shares***

In aggregate the Nominating Investors<sup>53</sup> hold a significant proportion of the common shares outstanding of TMX Group. The substantial number of common shares that are held by these investors may adversely affect the liquidity of the common shares held by the public. The liquidity in our common shares did improve somewhat after August 22, 2016 when three of the Nominating investors sold a combined 5.4 million common shares, or approximately 9.9% of our common shares issued and outstanding, on an underwritten block trade basis. Our liquidity continued to improve after the October 2, 2017 transaction when two Nominating Investors sold a combined 5.5 million common shares, or approximately 9.9% of our common shares issued and outstanding. Based on the criteria for eligibility in the S&P/TSX Composite Index, there is a continued risk that we could be removed from the index, which could make our shares less attractive to certain investors, particularly index funds.

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<sup>53</sup> “Nominating Investors” consist of Caisse de dépôt et placement du Québec, Canada Pension Plan Investment Board, National Bank Group Inc., Ontario Teachers’ Pension Plan Board and TD Securities Inc., either directly or through an affiliate as of December 31, 2017.

## Financial Risk Management

### 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 and CDCC, cash and cash equivalents, restricted cash and cash equivalents, marketable securities, trade receivables, total return swaps, interest rate swaps, the brokerage operations of Shorcan and TSX Trust.

In 2016, in compliance with the PFMI and additional Canadian regulatory and oversight guidance, CDS Clearing and CDCC each adopted a recovery plan, to be applied in the event that the entity is unable to provide defined critical operations and services as a going concern. (see ***Legal & Regulatory Risk - New regulatory requirements may make it more costly to comply with relevant regulation, to operate our exiting businesses or to enter into new business areas***)

#### ***Credit Risk – CDS***

The primary credit risk of CDS and its subsidiaries is 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 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.

Through New York Link (NYL) and DTC Direct Link (DDL), credit risk exposures are created. During the course of each business day, settlement transactions by NSCC/DTC can result in a net payment obligation from NSCC/DTC to CDS Clearing or the obligation of CDS Clearing to make a payment to NSCC/DTC. As a corollary result, CDS has a legal right to receive the funds from sponsored participants in a debit position or has an obligation to pay the funds to sponsored participants in a credit position.

The potential failure of the Participant to meet its payment obligation to CDS Clearing in CDS Clearing's NYL or DDL services results in a payment risk. To mitigate the risk of default, CDS Clearing has in place default risk mitigation mechanisms to minimize losses to the surviving participants as set out in the CDS Participant Rules. The process includes participants posting collateral with CDS Clearing and NSCC/DTC.

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. Cash collateral is held by CDS Clearing at the Bank of Canada and NSCC/DTC and non-cash collateral pledged by Participants under Participant Rules is held by CDS Clearing.

As of January 1, 2016, the effective date of a new regulatory requirement based on PFMI, CDS Clearing also holds \$1.0 million of its cash and cash equivalents and marketable securities to contribute pre-funded resources to its CNS default waterfall. This default fund of \$1.0 million would be accessed following the exhaustion of a suspended Participant's CNS Participant Fund and Default Fund contribution.

As a result of calculations of participants' exposure at December 31, 2017, the total amount of collateral required by CDS Clearing was \$5,888.3 million (2016 – 5,572.0 million). The actual collateral pledged to CDS Clearing at December 31, 2017 was \$6,789.4 million (2016 - \$6,630.4 million). The collateral pledged at December 31, 2017 was comprised of Cash (included within Balances with participants on the consolidated balance sheet) of \$505.7 million (2016 - \$501.4 million) and Treasury bills and Fixed Income Securities of 6,283.7 million (2016 - 6,129.0 million). Non-cash collateral is not included on our consolidated balance sheet.

CDS may receive payment from securities issuers for entitlements, for example, maturity or interest payments, prior to the date of payment to the participants holding those securities. In rare circumstances, due to the timing of receipt of these payments or due to market conditions, these funds may be held with a major Canadian chartered bank. As a result, CDS could be exposed to the credit risk associated with the potential failure of the bank.

See **Other Credit and Liquidity Facilities** for a description of CDS' credit and liquidity facilities.

### ***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 line of 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 regards 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 (DCMM) process that evaluates the financial strength of a Clearing Member against its margin requirements. CDCC monitors the margin requirement of a Clearing Member as a percentage of its capital (net allowable assets). CDCC will make additional margin calls when the ratio of margin requirement/net allowable assets exceeds 100%. The additional margin is equal to the excess of the ratio over 100% and is meant to ensure that Clearing Member leverage in the clearing activities does not exceed the value of the firm. In 2015, CDCC introduced 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.

Global regulatory requirements for central-counterparties (CCP) like CDCC have highlighted the need for CCPs to have a component of their capital at risk in the default management process. CDCC holds \$10.0 million of its cash and cash equivalents and marketable securities to cover the potential loss incurred due to Clearing Member defaults. This \$10.0 million would be accessed in the event that a defaulting Clearing Member's margin and clearing fund deposits are insufficient to cover the loss incurred by CDCC. The \$10.0 million is allocated into two separate tranches. The first tranche of \$5.0 million is intended to cover the loss resulting from the first defaulting Clearing Member. If the loss incurred is greater than \$5.0 million, and as such the first tranche is fully depleted, CDCC will fully replenish the first tranche using the second tranche of \$5.0 million. This second tranche is in place to ensure there is \$5.0 million available in the event of an additional Clearing Member default.

CDCC's cash margin deposits and cash clearing fund deposits are held at the Bank of Canada thereby alleviating the credit risk CDCC were to face with deposits held at commercial banks. The actual cash collateral pledged to CDCC at December 31, 2017 was \$877.3 million (2016 - \$842.8 million). CDCC's non-cash margin deposits and non-cash clearing fund deposits are pledged to CDCC under irrevocable agreements and are held by approved depositories. This collateral may be seized by CDCC in the event of default by a Clearing Member. At December 31, 2017, non-cash margin deposits of \$8,413.5 million (2016 - \$6,926.2 million) and non-cash clearing fund deposits of \$956.1 million (2016 - \$571.3 million) had been pledged to CDCC. Non cash collateral is held in government securities, put letters of guarantee, and equity securities and is not included in our consolidated balance sheet.

See **Other Credit and Liquidity Facilities** for a description of CDCC's credit facilities.

### ***Credit Risk – Cash and cash equivalents and Restricted cash and cash equivalents***

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 major Canadian chartered banks or in Federal and Provincial treasury bills.

### ***Credit Risk – Marketable Securities***

We manage exposure to credit risk arising from investments in marketable securities by holding investment funds that actively manage credit risk or by holding high-grade individual fixed income securities with credit ratings of A/R1-low or better. In addition, when holding individual fixed income securities, we will limit our exposure to any non-government security. Our investment policy will only allow excess cash to be invested within money market securities or fixed income securities.

The majority of the portfolio is held within Bank deposits, notes and Treasury Bills.

### ***Credit Risk – Trade Receivables***

Our exposure to credit risk resulting from uncollectable accounts is influenced by the individual characteristics of our customers, many of whom are banks and financial institutions. We invoice our customers on a regular basis and maintain a collections team to monitor customer accounts and minimize the amount of overdue receivables. There is no concentration of credit risk arising from accounts receivable from a single customer. In addition, customers that fail to maintain their account in good standing risk loss of listing, trading, clearing, data access privileges and other services.

### ***Credit Risk – Total Return Swaps (TRS)***

Due to the bilateral nature of the TRSs, we are exposed to the counterparty credit risk. To manage this credit risk, we only enter into the TRSs with major Canadian chartered banks.

### ***Credit Risk – Interest Rate Swaps (IRS)***

Due to the bilateral nature of the IRSs, we are exposed to the counterparty credit risk. To manage this credit risk, we only enter into the IRSs with major Canadian chartered banks.

### ***Credit Risk – TSX Trust***

TSX Trust is exposed to credit risk on foreign exchange transactions processed for clients in the event that either the client or the financial counterparty fails to settle contracts for which foreign exchange rates have moved unfavourably. The risk of a financial counterparty failing to settle a transaction is considered remote as TSX Trust deals only with reputable financial institutions comprised of 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.

### ***Equity Price Risk – RSUs, DSUs, TRS***

We are exposed to market risk relating to equity prices when we grant DSUs and RSUs to our directors and employees, respectively, as our obligation 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 these RSUs and DSUs.

### ***Interest Rate Risk – Cash, cash equivalents, and marketable securities***

We are exposed to market risk on interest earned on our cash, cash equivalents marketable securities. This risk is partially mitigated by having variable interest rates on our short-term debt (Commercial Paper). At December 31, 2017, TMX Group held \$50.1 million (\$61.8 million at December 31, 2016) in marketable securities of which, 100.0% were held in Federal and Provincial treasury bills.

### ***Interest Rate Risk – Commercial Paper***

We are exposed to market risk relating to interest paid on our **Commercial Paper**. Assuming Commercial Paper outstanding of approximately \$395.3 million (balance at December 31, 2017), the approximate annual impact on income before income taxes of a +1.0% rise and a -1.0% fall in interest rates with respect to Commercial Paper is a decrease of \$4.0 million and an increase of \$4.0 million, respectively. We partially manage the market risk relating to interest paid on our Commercial Paper through an interest rate swap with a notional value of 100.0 million. It expires on May 2, 2019. **(See Commercial Paper, Debentures, Credit and Liquidity Facilities – Interest Rate Swaps).**

### ***Other Market Price Risk – CDS, CDCC, and Shorcan***

We are exposed to market risk factors from the activities of CDS, CDCC, and Shorcan if a customer, contracting party or clearing member, 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 is exposed to market risk through its CCP function in the event a Participant defaults it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions.

The principal mitigation of the market risk exposure post default is the default management process. CDS 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.

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

Settlements in the clearing and settlement services occur in both Canadian and U.S. dollars. Foreign exchange risk is created when the currency of the payment obligation is different from the valuation currency of the collateral supporting that payment obligation. This risk is mitigated by discounting the collateral value of securities where these mismatches occur.

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

The principal mitigation of the market risk exposure post default is the default management process. CDCC has developed detailed default management processes that would enable it to neutralize the market exposures through either its auction process or via open 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.

Shorcan's risk is limited by its status as an agent, in that it does not purchase or sell securities or commodities 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 or commodities.

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

### ***Foreign Currency Risk***

We are 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. We are also exposed to market risk on revenue and expenses where we invoice or procure in a foreign currency, principally in U.S. dollars. Based on 2017 revenue and operating expenses (exclusive of TMX Atrium, NGX, and Shorcan Energy), 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 \$6.5 million. Based on Trayport's 2017 revenue and operating expenses, the approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with GBP (Sterling) on revenue, net of operating expenses, is approximately \$3.1 million.

At December 31, 2017, cash and cash equivalents and trade receivables, net of current liabilities, include US\$14.1 million, which are exposed to changes in the US-Canadian dollar exchange rate (2016 – US\$20.3 million), £1.5 million which are exposed to changes in the British Pound Sterling-Canadian dollar exchange rate (2016 - £0.2 million), and €0.7 million which are exposed to changes in the Euro-Canadian dollar exchange rate (2016 - €0.6 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, 2017 is a \$2.1 million decrease or increase in income before income taxes, respectively. 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 transactions as at December 31, 2017 is a \$5.3 million decrease or increase in equity attributable to equity holders, respectively.

We are exposed to market risk relating to foreign currency rates applicable to some of our Commercial Paper. As at December 31, 2017 we borrowed US\$15.0 million under our Commercial Paper Program. The US\$15.0 million is not hedged with forward contracts but is partially hedged by our U.S. dollar assets. With respect to the US\$15.0 million of Commercial Paper, the approximate impact of a 10% rise or a 10% decline in the Canadian dollar compared with the U.S. dollar is a \$1.9 million increase or decrease in income before income taxes, respectively.

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.

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

## **Liquidity Risk**

Liquidity risk is the risk of loss due to the inability of TMX Group or its participants/customers 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 the clearing and depository services, liquidity risk results from the requirement to convert collateral to cash in the event of the default of a participant.

### ***Cash and cash equivalents and Restricted cash and cash equivalents***

Cash and cash equivalents and restricted cash and cash equivalents consist of cash and highly liquid investments.

### ***Marketable securities***

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.

As at December 31, 2017 marketable securities were comprised of Federal and Provincial treasury bills.

### ***Balances with Clearing Members and participants***

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

### ***New York Link service – CDS***

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



vast majority of potential Participant default scenarios. Residual liquidity risk in excess of CDS' liquidity facility is transferred to surviving participant users of the New York Link service and as a result CDS' liquidity risk exposure is limited to a maximum of its available liquidity facility.

### ***Credit and liquidity facilities – Clearing operations***

In response to the liquidity risk that CDS and CDCC are exposed to through their clearing operations, they have arranged various facilities (see ***Other Credit and Liquidity Facilities***).

CDS maintains unsecured operating demand loans totaling \$6.0 million to support short-term operating requirements. To support processing and settlement activities of participants, an unsecured overdraft facility and demand loans of \$15.0 million and an overnight facility of US\$5.5 million are available.

CDS maintains a secured standby liquidity facility of US\$400.0 million, or Canadian dollar equivalent, that can be drawn in either U.S. or Canadian currency. This arrangement is available to support processing and settlement activities in the event of a participant default. Borrowings under the secured facility are obtained by pledging or providing collateral pledged by participants primarily in the form of debt instruments issued or guaranteed by federal, provincial and/or municipal governments in Canada or U.S. treasury instruments.

CDCC maintains daylight liquidity facilities for a total of \$600.0 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.

The syndicated revolving standby liquidity facility for a total of \$300.0 million is 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. The overall size of this facility increased from \$13,638.0 million to \$13,788.0 million of uncommitted liquidity in 2017. Also, as of December 31, 2017, the size of the repurchase facility stood at approximately \$13,800.0 million as a result of Clearing Members' activities. CDCC has the option to re-size this facility on a quarterly basis in order to stay consistent with its liquidity risk policy.

Finally, CDCC's Bank of Canada 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.

### ***Commercial Paper, Debentures and Credit Facility***

Our capital structure includes approximately \$950 million of indebtedness. As highlighted in the **Capital Structure Risk**, we rely on our Commercial Paper Program, Debentures and Credit Facility as a source of financing. If our indebtedness under the terms of our Commercial Paper Program, Debentures or Credit Facility (if drawn) was to become due prior to the maturity dates as a result of not meeting covenants under the Trust Indentures, the terms of the Commercial Paper Program or the Credit Facility, we could be required to seek more costly sources of financing, or potentially would not be able to obtain an alternative form of financing. The specific liquidity risk related to Commercial Paper is that we are unable to borrow under a new Commercial Paper issuance in order to pay for Commercial Paper that is coming due because of a lack of liquidity or demand for our Commercial Paper in the market. To mitigate this risk, we maintain a Credit Agreement that provides 100% coverage or backstop to the Commercial Paper Program (see **Liquidity and Capital Resources - Commercial Paper, Debentures, Credit and Liquidity Facilities - Credit Facility**).

## Accounting and Control Matters

### Changes in accounting policies

The following new amendments were effective for "the Company" (TMX Group Limited) from January 1, 2017:

- Amendments to IAS 7 Disclosure initiative (Amendments to IAS 7, Statement of Cash Flows) - the Company's liabilities arising from financing activities consist of borrowings and certain other financial liabilities. A reconciliation between the opening and closing balances of the items is provided in note 12;
- Amendments to IFRS 12 included in the 2014-2016 Annual Improvements 2014-2016 cycle - the standard states that an entity need not provide summarized financial information for interests in subsidiaries, associates or joint ventures that are classified (or included in a disposal group that is classified) as held for sale. The amendments clarify that this is the only concession from the disclosure requirements of IFRS 12 for such interests; and
- Recognition of deferred tax assets for unrealized losses (Amendments to IAS 12, Income Taxes) - the amendments clarify how an entity should evaluate whether there will be sufficient future taxable profits against which it can utilize a deductible temporary difference.

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

### Future changes in accounting policies

A number of other new standards and amendments to standards and interpretations are not yet effective for the year ending December 31, 2017, and have not been applied in the preparation of the financial statements. These new and amended standards and interpretations are required to be implemented for financial years beginning on or after January 1, 2018, unless otherwise noted:

- IFRS 15, Revenue from Contracts with Customers - The IASB and the U.S. Financial Accounting Standards Board ("FASB") jointly issued converged accounting standards on the recognition of revenue from contracts with customers; the IASB's standard is IFRS 15, Revenue from Contracts with Customers. The previous requirements of both IFRS and U.S. GAAP were different and often resulted in different accounting for transactions that were economically similar. IFRS 15 and its U.S. GAAP equivalent, contain a single revenue model that applies to contracts with customers with the exception of contracts for insurance, financial instruments and leases. Under the model, there are two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The mandatory effective date for IFRS 15 is for annual periods beginning on or after January 1, 2018 with either full retrospective application, retrospective with optional practical expedients or a modified prospective approach with disclosure requirements.

The Company has undertaken an assessment of each material revenue stream in accordance with the prescribed five-step model to determine the impact on the timing and measurement of its revenue recognition. Based on this assessment, the Company has determined that this standard will only have an impact on the timing of revenue recognition related to listing fees. However, the impact is not expected to be material. The Company intends to adopt the cumulative effect approach of transition to IFRS 15.

- IFRS 9, Financial Instruments- IFRS 9 replaces the guidance in IAS 39, Financial Instruments: Recognition and Measurement, for the classification and measurement of financial assets and financial liabilities and new standards for hedge accounting. Financial assets will be classified into one of two categories on initial recognition: amortized cost or fair value. For financial liabilities measured at fair value under the fair value option, changes in fair value attributable to changes in credit risk will be recognized in other comprehensive income, with the remainder of the change recognized in profit or loss. IFRS 9 will provide for more hedging strategies to qualify for hedge accounting, introduce more judgment in assessing the effectiveness of a hedging relationship, and include a single, forward-looking "expected loss" impairment model. The mandatory date for IFRS 9 is for annual periods beginning on or after January 1, 2018, with early application permitted for annual periods beginning on or after January 1, 2015.

To assess the classification and measurement of its financial assets, the Company analyzed its business model for managing financial assets, the respective cash flow characteristics, and the contractual terms of these assets. To assess the impairment of its financial instruments, the Company identified assets or asset classes that are in scope

and applied a simplified approach or a three-stage model for impairment based on changes in credit quality since initial recognition. The adoption of IFRS 9 is expected to change the Company's accounting policy for recognition, classification and measurement of financial instruments. However, the impact is not expected to be material. The Company intends to adopt IFRS 9 in its financial statements for the annual period beginning on January 1, 2018.

Annual improvements 2014-2016 cycle (Amendments to IFRS 1 and IAS 28) - The amendments remove out-dated exemptions for first time adopters under IFRS 1, First-time Adoption of International Financial Reporting Standards and clarify the election to measure an associate or joint venture at fair value under IAS 28, Investments in Associates and Joint Ventures for investments held directly, or indirectly, through a venture capital or other qualifying entity can be made on an investment-by-investment basis. The amendments are effective retrospectively for annual periods beginning on or after January 1, 2018.

The Company intends to adopt these amendments in its financial statements for the annual period beginning on January 1, 2018. The Company does not expect the amendments to have a material impact on the financial statements.

- Classification and measurement of share-based payment transactions (Amendments to IFRS 2, Share-based Payments) - The amendments clarify the accounting for the effects of vesting conditions on cash-settled share-based payment transactions, the classification of share-based payment transactions with net settlement features for withholding tax obligations and the accounting for a modification to the terms and conditions of a share-based payment that changes the transaction from cash-settled to equity-settled. The amendments are effective for annual periods beginning on or after January 1, 2018 with earlier application permitted. The Company intends to adopt the amendments to IFRS 2 in its financial statements for the annual period beginning on January 1, 2018. The Company does not expect the amendments to have a material impact on the financial statements.
- IFRIC 22, Foreign currency transactions and advance consideration (Interpretation of IAS 21, The Effects of Changes in Foreign Exchange Rates) - This interpretation clarifies the accounting for transactions that include the receipt or payment of advance consideration in a foreign currency. The interpretation is effective for annual periods beginning on or after January 1, 2018. The Company intends to adopt the Interpretation in its financial statements for the annual period beginning on January 1, 2018. The Company does not expect the Interpretation to have a material impact on the financial statements.
- IFRS 16, Leases - The IASB issued a new standard on leases which provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements. IFRS 16 supersedes IAS 17, Leases and its associated interpretative guidance. IFRS 16 applies a control model to the identification of leases, differentiating between leases and service contracts on the basis of whether there is an identified asset controlled by the customer. Among other significant changes, the distinction between operating and finance leases is removed and assets and liabilities are recognized in respect of all leases. Further, IFRS 16 requires a front-loaded pattern for the recognition of lease expense over the life of the lease. The mandatory effective date for IFRS 16 is for annual periods beginning on or after January 1, 2019 with earlier application permitted for entities that have also adopted IFRS 15. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on January 1, 2019. The extent of the impact of adoption of the standard has not yet been determined.

## **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 disclosure controls and procedures as of December 31, 2017. Based on this evaluation, the CEO and CFO have concluded that our disclosure controls and procedures were effective as of December 31, 2017.

### ***Internal Control over Financial Reporting***

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in NI 52-109. Internal control over financial reporting 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 internal control over financial reporting can only provide reasonable assurance and may not prevent or detect misstatements due to error or fraud.

Our management, including the CEO and CFO, subject to the limitation on scope of design as discussed below, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2017 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 internal control over financial reporting was effective as of December 31, 2017.

### **Limitation on Scope of Design**

TMX Group has limited the scope of design of DCP and our Internal Controls over Financial Reporting (ICFR) to exclude controls, policies and procedures of Trayport acquired on December 14, 2017. The scope limitation is in accordance with section 3.3(1)(b) of NI 52-109 which allows an issuer to limit its design of ICFR to exclude controls, policies and procedures of a business that the issuer acquired not more than 365 days before the end of the fiscal period.

The tables below presents the summary financial information of Trayport:

(in millions of dollars)	<b>As at December 31, 2017</b>
Current assets	28.6
Non-current assets <sup>54</sup>	1,015.8
Current liabilities	22.7
Non-current liabilities	0.7

<sup>54</sup> Trayport non-current assets as at December 31, 2017 includes \$1,005.1 million of goodwill and intangibles related to the acquisition of Trayport.

(in millions of dollars)	Year ended December 31, 2017
Revenue	100.3
Expense	66.2
Income from operations	34.1

### ***Changes in Internal Control over Financial Reporting***

There were no changes to internal control over financial reporting during the quarter ended December 31, 2017 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### **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. While in aggregate the Nominating Investors<sup>55</sup> own a significant portion of the common shares outstanding 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 compensation***

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

(in millions of dollars)	2017	2016
Salaries and other short-term employee benefits	<b>\$8.2</b>	\$9.9
Post-employment benefits	<b>0.7</b>	1.0
Share-based payments	<b>6.0</b>	15.1
	<b>14.9</b>	26.0

#### ***Related party transactions***

In aggregate, the Nominating Investors hold a significant proportion of our common shares outstanding. TMX Group and its subsidiaries transact with a number of the Nominating Investors on a regular basis through their normal operations. Transactions are conducted at prevailing market prices and on general market terms and conditions.

<sup>55</sup> "Nominating Investors" consist of Caisse de dépôt et placement du Québec, Canada Pension Plan Investment Board, National Bank Group Inc., Ontario Teachers' Pension Plan Board, and TD Securities Inc., either directly or through an affiliate. In October 2017, Alberta Investment Management Corporation, and Scotia Capital Inc. sold down their positions and are no longer Nominating Investors. CIBC World Markets Inc. is also no longer a Nominating Investor.

## 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, the anticipated benefits of the Trayport acquisition to TMX Group; the expected impact of the Trayport acquisition on TMX Group’s earnings and adjusted earnings per share; estimated 2018 transaction costs; the ability and timing to integrate Trayport into TMX Group and the potential synergies; the acquisition of Trayport bolstering TMX Group’s strategy to shift towards recurring data and analytics revenue globally; the impact of the Trayport acquisition on certain of TMX Group’s segments, including capital markets, derivatives markets and global solutions, insights and analytics businesses as a result of a European presence; Trayport’s expected conversion to the SaaS model and the timing thereof; the potential for geographic expansion; the ability for TMX Group to accelerate Trayport’s growth; the ability of TMX Group to de-leverage and the timing thereof; TMX Group’s business integration initiative including the integration of clearing platforms, including the expected cash expenditures related to the integration of our clearing platforms and the anticipated cost savings resulting from this initiative and the timing of the integration and the anticipated savings; costs associated with the consolidation of office premises and anticipated cost savings related to consolidation of office premises statements; other statements related to cost reductions and strategic realignment expenses; the impact of changes to each of our equity trading fees, market data fees, and additional listing fees on TMX Group’s revenue; the impact of the increase of market capitalization of TSX and TSXV issuers overall (from 2016 to 2017) net of changes to sustaining fees on TMX Group’s revenue; anticipated increases to severance costs as a result of organizational changes, the expected annual cost savings related to these changes, and the timing thereof; TMX Group’s anticipated statutory income tax rate for 2018; factors relating to stock, and derivatives exchanges and clearing houses and the business, strategic goals and priorities, market conditions, pricing, proposed technology and other initiatives, financial results or financial condition, operations and prospects of TMX Group which are subject to significant risks and uncertainties.

These risks include: competition from other exchanges or marketplaces, including alternative trading systems and new technologies, on a national and international basis; dependence on the economy of Canada; adverse effects on our results caused by global economic conditions 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; 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 effectively integrate acquisitions, including the Trayport acquisition, to achieve planned economics, or divest under performing businesses; currency risk; adverse effect of new business activities; adverse effects from business divestitures; not being able to meet cash requirements because of our holding company structure and restrictions on paying dividends; dependence on third-party suppliers and service providers; dependence of trading operations on a small number of clients; risks associated with our clearing operations; challenges related to international expansion; restrictions on ownership of TMX Group common shares; inability to protect our intellectual property; adverse effect of a systemic market event on certain of our businesses; risks associated with the credit of customers; cost structures being largely fixed; the failure to realize cost reductions in the amount or the time frame anticipated; dependence on market activity that cannot be controlled; the regulatory constraints that apply to the business of TMX Group and its regulated subsidiaries, costs of on exchange clearing and depository services, trading volumes (which could be higher or lower than estimated) and revenues; future levels of revenues being lower than expected or costs being higher than expected.

Forward-looking information is based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions in connection with the ability of TMX Group to successfully compete against global and regional marketplaces; business and economic conditions generally; exchange rates (including estimates of exchange rates from Canadian dollars to the U.S. dollar or British pound sterling), 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; productivity at TMX Group, as well as that of TMX Group's competitors; market competition; research and development activities; the successful introduction and client acceptance of new products; successful introduction of various technology assets and capabilities; the impact on TMX Group and its customers of various regulations; TMX Group's ongoing relations with its employees; and the extent of any labour, equipment or other disruptions at any of its operations of any significance other than any planned maintenance or similar shutdowns.

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 under the heading **RISKS AND UNCERTAINTIES** in this MD&A.

# **Financial Statements**



# Management Statement

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

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

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



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**Louis V. Eccleston**

Chief Executive Officer  
TMX Group Limited



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**John McKenzie**

Chief Financial Officer  
TMX Group Limited

February 12, 2018



KPMG LLP  
Chartered Professional Accountants  
Bay Adelaide Centre  
333 Bay Street, Suite 4600  
Toronto ON M5H 2S5

Telephone (416) 777-8500  
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Internet: [www.kpmg.ca](http://www.kpmg.ca)

## INDEPENDENT AUDITORS' REPORT

To the Shareholders of TMX Group Limited:

We have audited the accompanying consolidated financial statements of TMX Group Limited (the "Company"), which comprise the consolidated balance sheets as at December 31, 2017 and 2016, the consolidated income statements, the consolidated statements of comprehensive income (loss), consolidated statements of changes in equity and consolidated statements of cash flows for the years then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

### ***Management's Responsibility for the Consolidated Financial Statements***

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

### ***Auditors' Responsibility***

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

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



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***Opinion***

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of TMX Group Limited as at December 31, 2017 and 2016, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board.

*KPMG LLP*

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Chartered Professional Accountants, Licensed Public Accountants

February 12, 2018  
Toronto, Canada

# TMX GROUP LIMITED

## Consolidated Balance Sheets

<i>(In millions of Canadian dollars)</i>	<i>Note</i>	<b>December 31, 2017</b>	December 31, 2016
<b>Assets</b>			
<b>Current assets:</b>			
Cash and cash equivalents	15	\$ 175.0	\$ 240.6
Restricted cash and cash equivalents	15	116.3	66.0
Marketable securities	15	50.1	61.8
Trade and other receivables	16	102.3	84.9
Energy contracts receivable	4 & 10	—	781.3
Fair value of open energy contracts	4 & 10	—	122.8
Balances with Clearing Members and Participants	10	19,946.0	16,315.5
Other current assets	23	18.1	16.2
		<b>20,407.8</b>	17,689.1
<b>Non-current assets:</b>			
Fair value of open energy contracts	4 & 10	—	27.4
Goodwill and intangible assets	17	5,067.6	4,319.8
Other non-current assets	23	134.4	128.3
Deferred income tax assets	9	15.0	36.8
<b>Total Assets</b>		<b>\$ 25,624.8</b>	<b>\$ 22,201.4</b>
<b>Liabilities and Equity</b>			
<b>Current liabilities:</b>			
Trade and other payables	19	\$ 90.3	\$ 77.5
Participants' tax withholdings	15	116.3	66.0
Energy contracts payable	4 & 10	—	781.3
Fair value of open energy contracts	4 & 10	—	122.8
Balances with Clearing Members and Participants	10	19,946.0	16,315.5
Debt	12	795.0	309.9
Credit and liquidity facilities drawn	12	—	4.6
Other current liabilities	23	61.1	56.0
		<b>21,008.7</b>	17,733.6
<b>Non-current liabilities:</b>			
Fair value of open energy contracts	4 & 10	—	27.4
Debt	12	547.6	648.7
Other non-current liabilities	23	61.3	58.0
Deferred income tax liabilities	9	824.4	813.0
<b>Total Liabilities</b>		<b>22,442.0</b>	19,280.7
<b>Equity:</b>			
Share capital	26	2,915.5	2,896.4
Contributed surplus	24	11.8	10.3
Retained earnings (deficit)		252.6	(5.3)
Accumulated other comprehensive income		2.9	19.3
<b>Total Equity</b>		<b>3,182.8</b>	2,920.7
Commitments and contingent liabilities	21 & 22		
<b>Total Liabilities and Equity</b>		<b>\$ 25,624.8</b>	<b>\$ 22,201.4</b>

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

Approved on behalf of the Board of Directors on February 12, 2018:

/s/ Charles Winograd Chair /s/ William Linton Director

# TMX GROUP LIMITED

## Consolidated Income Statements

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

	Note	For the year ended December 31,	
		2017	2016
Revenue	6	\$ 668.9	\$ 683.7
REPO interest:			
Interest income		78.4	61.7
Interest expense		(78.4)	(61.7)
Net REPO interest		—	—
<b>Total revenue</b>		<b>668.9</b>	<b>683.7</b>
<b>Expenses:</b>			
Compensation and benefits		171.4	183.1
Information and trading systems		51.2	67.2
Selling, general and administration		82.1	76.7
Depreciation and amortization		51.6	56.6
<b>Total operating expenses before acquisition costs and strategic re-alignment expenses</b>		<b>356.3</b>	<b>383.6</b>
<b>Income from operations before acquisition costs and strategic re-alignment expenses</b>		<b>312.6</b>	<b>300.1</b>
Acquisition costs	3	13.8	—
Strategic re-alignment expenses	21	—	21.0
<b>Income from operations</b>		<b>298.8</b>	<b>279.1</b>
Share of income from equity accounted investees	18	2.9	2.4
Impairment charges	17	(6.5)	(8.9)
Other income		—	0.6
Finance income (costs):			
Finance income	3 & 7	13.1	1.7
Finance costs	4 & 7	(28.1)	(33.1)
Net finance costs		(15.0)	(31.4)
<b>Income before income tax expense and income from discontinued operations</b>		<b>280.2</b>	<b>241.8</b>
Income tax expense	9	89.0	61.8
<b>Net income before income from discontinued operations, net of tax</b>		<b>191.2</b>	<b>180.0</b>
Income from discontinued operations, net of tax	4	176.8	15.7
<b>Net income</b>		<b>\$ 368.0</b>	<b>\$ 195.7</b>
<b>Net income attributable to:</b>			
Equity holders of the Company		\$ 368.0	\$ 196.4
Non-controlling interests		—	(0.7)
		<b>\$ 368.0</b>	<b>\$ 195.7</b>
<b>Earnings per share (attributable to equity holders of the Company):</b>			
Net income before discontinued operations, net of tax - basic	8	\$ 3.46	\$ 3.31
Net income before discontinued operations, net of tax - diluted	8	\$ 3.43	\$ 3.30
Net income - basic	8	\$ 6.66	\$ 3.60
Net income - diluted	8	\$ 6.60	\$ 3.58

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

## TMX GROUP LIMITED

### Consolidated Statements of Comprehensive Income (Loss)

(In millions of Canadian dollars)

	Note	For the year ended December 31,	
		2017	2016
<b>Net income</b>		\$ 368.0	\$ 195.7
<b>Other comprehensive income (loss):</b>			
Items that will not be reclassified to the consolidated income statements:			
Actuarial losses on defined benefit pension and other post-retirement benefit plans (net of tax benefits of \$0.9, 2016 – tax benefit of \$0.3)	25	(2.3)	(0.7)
<b>Total items that will not be reclassified to the consolidated income statements</b>		<b>(2.3)</b>	<b>(0.7)</b>
Items that may be reclassified subsequently to the consolidated income statements:			
Unrealized loss on translating financial statements of foreign operations		(16.4)	(5.6)
Reclassification to net income of losses on interest rate swaps (2016 – tax expense of \$0.4)	12	—	1.1
<b>Total items that may be reclassified subsequently to the consolidated income statements</b>		<b>(16.4)</b>	<b>(4.5)</b>
<b>Total comprehensive income</b>		<b>\$ 349.3</b>	<b>\$ 190.5</b>
<b>Total comprehensive income attributable to:</b>			
Equity holders of the Company		\$ 349.3	\$ 193.1
Non-controlling interests		—	(2.6)
		<b>\$ 349.3</b>	<b>\$ 190.5</b>

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

# TMX GROUP LIMITED

## Consolidated Statements of Changes in Equity

(In millions of Canadian dollars)

For the year ended December 31, 2017

	Note	Attributable to equity holders of the Company				Total equity
		Share capital	Contributed surplus	Accumulated other comprehensive income	Retained earnings (deficit)	
<b>Balance at January 1, 2017</b>		\$ 2,896.4	\$ 10.3	\$ 19.3	\$ (5.3)	\$ 2,920.7
<b>Net income</b>		—	—	—	368.0	368.0
<b>Other comprehensive (loss) income:</b>						
Foreign currency translation differences		—	—	(16.4)	—	(16.4)
Actuarial losses on defined benefit pension and other post-retirement benefit plans, net of taxes	25	—	—	—	(2.3)	(2.3)
<b>Total comprehensive income (loss) income</b>		—	—	(16.4)	365.7	349.3
<b>Dividends to equity holders</b>	28	—	—	—	(107.8)	(107.8)
<b>Proceeds from exercised share options</b>		17.3	—	—	—	17.3
<b>Cost of exercised share options</b>		1.8	(1.8)	—	—	—
<b>Cost of share option plan</b>	24	—	3.3	—	—	3.3
<b>Balance at December 31, 2017</b>		\$ 2,915.5	\$ 11.8	\$ 2.9	\$ 252.6	\$ 3,182.8

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

# TMX GROUP LIMITED

## Consolidated Statements of Changes in Equity

(In millions of Canadian dollars)

For the year ended December 31, 2016

	Note	Attributable to equity holders of the Company					Total attributable to equity holders	Non- controlling interests	Total equity
		Share capital	Contributed surplus	Accumulated other comprehensive income	Retained earnings (deficit)				
Balance at January 1, 2016		\$ 2,861.7	\$ 11.0	\$ 21.9	\$ (106.6)	\$ 2,788.0	\$ 30.3	\$ 2,818.3	
Net income (loss)		—	—	—	196.4	196.4	(0.7)	195.7	
Other comprehensive (loss) income:									
Foreign currency translation differences		—	—	(3.7)	—	(3.7)	(1.9)	(5.6)	
Net change in interest rate swaps designated as cash flow hedges, net of taxes	12	—	—	1.1	—	1.1	—	1.1	
Actuarial losses on defined benefit pension and other post-retirement benefit plans, net of taxes	25	—	—	—	(0.7)	(0.7)	—	(0.7)	
Total comprehensive (loss) income		—	—	(2.6)	195.7	193.1	(2.6)	190.5	
Dividends to equity holders	28	—	—	—	(90.2)	(90.2)	—	(90.2)	
Dividend to non-controlling interests		—	—	—	—	—	(3.4)	(3.4)	
Changes to BOX Holdings non-controlling interests		—	—	—	(4.2)	(4.2)	(24.3)	(28.5)	
Proceeds from exercised share options		31.6	—	—	—	31.6	—	31.6	
Cost of exercised share options		3.1	(3.1)	—	—	—	—	—	
Cost of share option plan	24	—	2.4	—	—	2.4	—	2.4	
Balance at December 31, 2016		\$ 2,896.4	\$ 10.3	\$ 19.3	\$ (5.3)	\$ 2,920.7	\$ —	\$ 2,920.7	

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



# TMX GROUP LIMITED

## Consolidated Statements of Cash Flows

(In millions of Canadian dollars)

		For the year ended December 31,	
	Note	2017	2016
<b>Cash flows from (used in) operating activities:</b>			
Income (including discontinued operations) before income taxes	4	\$ 507.5	\$ 261.5
Adjustments to determine net cash flows:			
Depreciation and amortization		56.1	61.2
Impairment charges and write-offs	17	8.3	10.7
Gain on sale of NGX and Shorcan Energy before income taxes	4	(203.2)	—
Other income		—	(0.6)
Net finance costs	7	14.4	30.9
Share of income of equity accounted investees	18	(2.9)	(2.4)
Cost of share option plan	24	3.3	2.4
Employee defined benefits expense	25	3.8	3.7
Unrealized foreign exchange losses		(2.5)	0.3
Trade and other receivables, and prepaid expenses		(11.8)	(9.5)
Trade and other payables		0.8	1.5
Provisions		(7.9)	14.0
Deferred revenue		(2.8)	7.7
Other assets and liabilities		11.0	7.2
Cash paid for employee defined benefits	25	(2.2)	(5.2)
Income taxes paid		(95.3)	(69.0)
		<b>276.6</b>	<b>314.4</b>
<b>Cash flows from (used in) financing activities:</b>			
Interest paid	7	(29.0)	(31.8)
Net settlement on derivative instruments	12	10.2	(1.1)
Reduction in obligations under finance leases	22	(0.1)	(1.0)
Proceeds from exercised options	24	17.3	31.6
Dividends paid to equity holders	28	(107.8)	(90.2)
Dividend paid to non-controlling interests		—	(3.4)
Credit facility and debt financing fees	12	(2.0)	(1.0)
Repayment of debenture	12	—	(350.0)
Proceeds from issuance of debenture	12	300.0	—
Net movement of Commercial Paper	12	86.4	235.2
Credit and liquidity facilities drawn, net	12	(4.6)	4.4
		<b>270.4</b>	<b>(207.3)</b>
<b>Cash flows from (used in) investing activities:</b>			
Interest received		3.6	2.2
Dividends received		0.5	1.6
Additions to premises and equipment and intangible assets, net of grants		(39.6)	(13.5)
Marketable securities, net		11.7	9.4
Acquisition of Trayport and sale of NGX and Shorcan Energy, net of cash	3 & 4	(613.5)	—
Proceeds from sale of operations, net of cash disposed of	5	25.3	—
Decrease in cash from loss of control of BOX Holdings		—	(17.6)
Other investing activities		—	(0.4)
		<b>(612.0)</b>	<b>(18.3)</b>
<b>(Decrease) increase in cash and cash equivalents</b>		<b>(65.0)</b>	<b>88.8</b>
Cash and cash equivalents, beginning of the period		240.6	154.1
Unrealized foreign exchange losses on cash and cash equivalents held in foreign currencies		(0.6)	(2.3)
<b>Cash and cash equivalents, end of the period</b>		<b>\$ 175.0</b>	<b>\$ 240.6</b>

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

# TMX GROUP LIMITED

## Notes to the Consolidated Financial Statements

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

### NOTE 1 – GENERAL INFORMATION

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TMX Group Limited is a company domiciled in Canada and incorporated under the Business Corporations Act (Ontario). The registered office is located at The Exchange Tower, 130 King Street West, Toronto, Ontario, Canada.

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

- TSX Inc. ("TSX"), which operates Toronto Stock Exchange, a national stock exchange serving the senior equities market; TSX Venture Exchange Inc. ("TSX Venture Exchange"), which operates TSX Venture Exchange, a national stock exchange serving the public venture equity market; and Alpha Trading Systems Inc. ("Alpha"), which also operates an exchange for the trading of securities;
- Montréal Exchange Inc. ("MX"), Canada's national derivatives exchange, and its subsidiaries, including Canadian Derivatives Clearing Corporation ("CDCC"), the clearing house for options and futures contracts traded at MX and certain over-the-counter ("OTC") products and fixed income repurchase ("REPO") agreements. MX also holds an investment in BOX Holdings Group LLC ("BOX Holdings"), which wholly-owns BOX Market LLC ("BOX"). BOX provides a market for the trading of United States ("US") equity options. The Company accounts for its investment in BOX Holdings using the equity method (note 18);
- The Canadian Depository for Securities Limited and its subsidiaries ("CDS"), including CDS Clearing and Depository Services Inc. ("CDS Clearing"), which operates the automated facilities for the clearing and settlement of equities and fixed income transactions and custody of securities in Canada;
- Trayport Limited ("Trayport"), a world-leading provider of technology solutions for energy traders, brokers and exchanges based in London, UK. The Company acquired Trayport on December 14, 2017 from Intercontinental Exchange Inc. ("ICE") (note 3);
- Shorcan Brokers Limited ("Shorcan"), a fixed income inter-dealer broker and registered exempt market dealer; and
- TSX Trust Company, a provider of corporate trust, registrar, transfer agency and foreign exchange services).

On December 14, 2017, the Company sold Natural Gas Exchange Inc. ("NGX") and its subsidiaries, which operates an exchange for the trading and clearing of natural gas, electricity, and crude oil contracts in North America and Shorcan Energy Brokers Inc. ("Shorcan Energy"), a broker of crude oil contracts to ICE (note 4). As a result, the Company has reclassified the operations of NGX and Shorcan Energy as discontinued, and has restated the consolidated income statements on a comparative basis.

The audited annual consolidated financial statements as at and for the year ended December 31, 2017 and 2016 (the "financial statements"), comprise the accounts of TMX Group Limited and its subsidiaries (collectively referred to as the "Company"), and the Company's interests in equity accounted investees.

### NOTE 2 – BASIS OF PREPARATION

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#### (A) BASIS OF ACCOUNTING

The financial statements have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") and IFRS Interpretations Committee ("IFRIC") interpretations, as issued by the International Accounting Standards Board ("IASB"). The financial statements were approved by the Company's Board of Directors on February 12, 2018.

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

## **(B) BASIS OF MEASUREMENT**

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

- Certain financial instruments (note 14);
- Investment in privately-owned company (note 23);
- Liabilities arising from share-based payment plans (note 24); and
- Legal obligations associated with the restoration costs on the retirement of premises and equipment (note 21).

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

## **(C) JUDGEMENTS AND ESTIMATES**

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

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

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

- Consolidation of a subsidiary – As of July 1, 2016, the Company does not hold majority voting power on the board of directors of BOX Holdings and determined that it does not exercise control. The Company uses the equity method to account for its investment in BOX Holdings (note 18); and
- Reallocation of goodwill and certain intangibles – as a result of a strategic re-alignment which began in 2015, the Company revised its operating segments. The reorganization of the Company's reporting structure has changed the composition of one or more cash-generating units to which goodwill and certain intangibles have been allocated for impairment purposes (note 17).

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

- Fair values of assets acquired and liabilities assumed – for the acquisition of Trayport and the sale of NGX and Shorcan Energy, the provisional 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 (note 3 and 4);
- Impairment of goodwill and indefinite life intangible assets – impairment tests are completed using the higher of fair value less costs of disposal, where available, and value-in-use calculations, determined using management's best estimates of future cash flows, long-term growth rates and appropriate discount rates. Purchased intangibles are valued on acquisition using established methodologies and amortized over their estimated useful economic lives, except in those cases where intangibles are determined to have indefinite lives, where there is no foreseeable limit over which these intangibles would generate net cash flows. These valuations and lives are based on management's best estimates of future performance and periods over which value from the intangible assets will be derived (note 17);
- Measurement of defined benefit obligations for pensions, other post-retirement and post-employment benefits – the valuations of the defined benefit assets and liabilities are based on actuarial assumptions made by management with advice from the Company's external actuary (note 25);
- Provisions and contingencies – management judgement is required to assess whether provisions and/or contingencies should be recognized or disclosed, and at what amount. Management bases its decisions on past experience and other factors it considers to be relevant on a case by case basis (note 21);
- Share-based payments – The liabilities associated with the Company's share-based payment plans are measured at fair value using a recognized option pricing model based on management's assumptions. Management's assumptions are based on historical share price movements, dividend policy and past experience for the Company (note 24); and

- Income taxes – the accounting for income taxes requires estimates to be made, such as the recoverability of deferred tax assets. Where differences arise between estimated income tax provisions and final income tax liabilities, an adjustment is made when the difference is identified (note 9).

#### **(D) BASIS OF CONSOLIDATION**

Subsidiaries are entities controlled by the Company, and they are consolidated from the date on which control is transferred to the Company until the date that control ceases. Balances and transactions between the Company's subsidiaries have been eliminated on consolidation. On loss of control of a subsidiary, the Company derecognizes the assets and liabilities of the entity, and any related non-controlling interests and equity. Any gain or loss is recognized in the consolidated income statement and any retained interests measured at fair value at the date of loss of control.

Non-controlling interests are measured at the proportionate share of the acquiree's identifiable net assets at the date of acquisition. Changes in the Company's interest that do not result in a loss of control are accounted for as equity transactions.

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

#### **(E) FUNCTIONAL AND PRESENTATION CURRENCY**

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

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

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

#### **(F) REVENUE RECOGNITION**

Revenue is measured at the fair value of the consideration received or receivable. Revenue is recognized when the service or supply is provided, when it is probable that the economic benefits will flow to the Company, and when the revenue and the costs incurred in respect of the transaction can be reliably measured.

##### **(i) Capital formation**

Capital formation revenue includes revenue from listings services and other issuer services.

Initial and additional listings are recognized when the listing has occurred. Sustaining services for existing issuers are billed during the first quarter of the year and the amount is recorded as deferred revenue and amortized over the year on a straight-line basis. Sustaining services for new issuers are billed when the issuer's securities are officially listed and the amount is recorded as deferred revenue and amortized over the remainder of the year on a straight-line basis.

Other issuer services include revenue from registrar and transfer agency, corporate trust services, and trading of securities in the exempt market which is recognized as the services are provided. Margin income from funds held and administered on behalf of clients is also included in other issuer services revenue.

##### **(ii) Derivatives trading and clearing**

Derivatives trading and clearing revenue includes revenue from trading, clearing and licensing technology to BOX.

Trading and related revenues for derivatives markets are recognized in the month in which the trades are executed or when the related services are provided. Fees earned are recognized on the novation date of the related transaction.

BOX revenue from the Options Price Reporting Authority ("OPRA") is received quarterly based on BOX's pro-rata share of industry trade (not contract) volume. Estimates of OPRA's quarterly revenue are made and accrued each month. Subsequent to July 1, 2016, the Company accounts for its investment in BOX Holdings using the equity method (note 18).

**(iii) Global solutions, insights & analytics (formerly Market insights)**

Global solutions, insights & analytics revenue includes real time data, other market data products, data delivery solutions and technology solutions.

Real time market data revenue is recognized based on usage as reported by customers and vendors, less a provision for sales adjustments from the same customers. The Company conducts periodic audits of the information provided and records adjustments to revenues, if any, at the time that collectibility of the revenue is reasonably assured.

Other global solutions, insights & analytics revenue is recognized when the services are provided.

**(iv) Equities and fixed income trading and clearing**

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

Trading and related revenues for equities and fixed income trading are recognized in the month in which the trades are executed or when the related services are provided.

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

- Clearing services include the reporting and confirmation of all trade types within the multilateral clearing and settlement system referred to as CDSX. Clearing services also include the netting and novation of exchange trades through CDS's Continuous Net Settlement ("CNS") service prior to settlement. The related fees are recognized as follows:
  - Reporting fees are recognized when the trades are delivered to CDS;
  - Netting and novation fees are recognized when the trades are netted and novated;
  - Other clearing related fees are recognized when services are performed; and
  - Settlement revenue is recognized on the settlement date of the related transaction.
- Depository fees are charged for custody of securities, depository related activities and processing of entitlement and corporate actions and are recognized when the services are performed.
- Under the CDS recognition orders granted by the Ontario Securities Commission ("OSC") and the Autorité des marchés financiers ("AMF"), CDS is required to share any annual revenue increases on clearing and other core CDS Clearing services, as compared to revenues for the twelve-month period ended October 31, 2012, on a 50:50 basis with Participants. Beginning January 1, 2015 and subsequent years, CDS also shares with Participants, on a 50:50 basis, any annual increases in revenue applicable to the New York Link/Depository Trust Company Direct Link Liquidity Premium.
- These rebates are recorded as a reduction in revenue in the consolidated income statement in the period to which they relate.

Other equities and fixed income trading and clearing revenues are recognized when the services are performed.

**(v) Energy trading and clearing**

Energy trading, clearing, settlement and related revenues are recognized over the period the services are provided. Unrealized gains and losses on open energy contracts are equal and offsetting and hence have no impact on the consolidated income statement.

**(vi) Other income**

Other income is recorded and recognized as revenue over the period the service is provided.

**(vii) REPO interest**

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

**(G) COMPARATIVE FIGURES**

Certain comparative figures in these consolidated financial statements have been reclassified to reflect financial presentation adopted in the current year.

## NOTE 3 – ACQUISITION OF TRAYPORT

On December 14, 2017, the Company completed the acquisition of Trayport, a world-leading provider of technology solutions for energy traders, brokers and exchanges from Intercontinental Exchange, Inc. (ICE) for £551.8 (\$951.7). The UK Competition and Markets Authority has approved the sale of Trayport to the Company. The transaction was announced in October 2017.

In conjunction with the Trayport acquisition, the Company completed the sale of NGX and Shorcan Energy to ICE, at a combined value of £220.5 (\$379.2) (note 4). The sale of NGX and Shorcan Energy was used as partial consideration by the Company for the Trayport acquisition. The net purchase price of £331.3 (\$572.5) was funded through \$173.0 from commercial paper, \$101.2 of cash on hand and \$298.3 from the Series D Debentures offering, net of fees (note 12). The Company completed foreign exchange forward transactions to economically hedge £352.7 (\$610.0). As a result, a gain of \$10.2 was recognized as finance income (note 7).

The acquisition has been accounted for as a business combination with the Company consolidating 100% of the results of operations of Trayport from the date of the acquisition. The assets and liabilities of Trayport are included in the consolidated financial statements. Trayport is included in the Global Solutions, Insights & Analytics operating segment (note 6).

The preliminary purchase price allocation is as follows:

Goodwill	\$	621.7
Intangible assets		383.4
Other assets and liabilities, net		11.0
Deferred tax liabilities on identifiable intangible assets		(64.4)
<b>Fair value of net assets acquired</b>	<b>\$</b>	<b>951.7</b>

In determining the preliminary purchase price allocation, the Company considered, among other factors, the intended future use of acquired assets, analysis of historical financial performance and estimates of future performance of Trayport's business. The Company has not yet obtained all the information related to the fair value of the acquired assets and liabilities to finalize the purchase price allocation, including the valuation of identifiable intangible assets, income taxes, certain other assets and liabilities, and final working capital adjustments. The allocation of the purchase price will be finalized within twelve months following the acquisition date.

The following table sets forth the preliminary estimate of the components of the intangible assets associated with the acquisition as at December 31, 2017:

Intangible assets	Acquisition date fair value	Accumulated amortization	Net book value	Useful life (Years)
Customer relationships	\$ 307.6	\$ (0.5)	\$ 307.1	25
Trade name	39.2	—	39.2	Indefinite
Developed technology	36.6	(0.2)	36.4	2 to 10
<b>Total</b>	<b>\$ 383.4</b>	<b>\$ (0.7)</b>	<b>\$ 382.7</b>	

Approximately \$13.8 of acquisition related costs have been recognized as an expense in the consolidated income statement.

Had the acquisition of Trayport occurred as of January 1, 2017, the Company's consolidated income statement for the year ended December 31, 2017 would have included revenue of \$100.3 and income from operations of \$34.1, inclusive of pre-acquisition revenue of \$95.9 and income from operations of \$31.6. In determining these amounts, management has assumed that the fair value adjustments, determined provisionally, that arose on the acquisition date, would have been the same if the acquisition had occurred on January 1, 2017.

## NOTE 4 – SALE OF NGX AND SHORCAN ENERGY

In conjunction with the acquisition of Trayport (note 3), the Company completed the sale of NGX and Shorcan Energy to ICE on December 14, 2017, at a combined value of £220.5 (\$379.2). The sale of NGX and Shorcan Energy was used as partial consideration for the acquisition of Trayport. The Commissioner of Competition has issued a "no action" letter in respect of the sale of NGX and Shorcan Energy to ICE.

The financial information relating to the gain on sale of NGX and Shorcan Energy is as follows:

	December 31, 2017	
Gross proceeds from sale of NGX and Shorcan Energy	\$	379.2
Net assets disposed		(174.0)
Transaction costs		(2.0)
Gain on sale of NGX and Shorcan Energy before income taxes		203.2
Income tax expense		(45.4)
<b>Gain on sale of NGX and Shorcan Energy, net of tax</b>	<b>\$</b>	<b>157.8</b>

	December 31, 2017	
Goodwill	\$	10.4
Intangible assets		188.0
Other assets and liabilities, net		(24.4)
<b>Total assets disposed</b>	<b>\$</b>	<b>174.0</b>

The Company has classified the sale of NGX and Shorcan Energy as a discontinued operation. Prior to the sale, the operations of NGX and Shorcan Energy entirely comprised of the Energy Trading & Clearing operating segment and a small portion of the Global Solutions, Insights & Analytics operating segment. A discontinued operation is a component of the Company's business, the operations and cash flows of which can be clearly distinguished from the rest of the Company and which: (i) represents a separate major line of business or geographic area of operations; (ii) is part of a single co-ordinated plan to dispose of a separate major line of business or geographic area of operations; or (iii) is a subsidiary acquired exclusively with a view to re-sale.

The operations of NGX and Shorcan Energy were not previously classified as held-for-sale or as a discontinued operation. The classification of discontinued operation occurred at December 14, 2017 which is the date of disposal of the operations. Accordingly, the Company has re-presented the comparative consolidated income statements to show the discontinued operations separately from continuing operations.

The financial performance and cash flow information presented in the following table are for the beginning of the period to the date of sale and the year ended December 31, 2016:

	December 14, 2017		December 31, 2016	
Revenue	\$	58.3	\$	58.3
Operating expenses		34.9		39.1
<b>Income from operations</b>		<b>23.4</b>		19.2
Finance income		0.7		0.5
<b>Income before income taxes and gain on sale</b>		<b>24.1</b>		19.7
Income tax expense		4.9		4.0
Gain on sale of NGX and Shorcan Energy, net of tax		157.8		—
<b>Income from discontinued operations</b>	<b>\$</b>	<b>176.8</b>	<b>\$</b>	<b>15.7</b>

	December 14, 2017		December 31, 2016	
Net cash provided by operating activities	\$	19.1	\$	20.7
Net cash used in financing activities		0.1		—
Net cash generated by (used in) investing activities		(3.1)		(4.7)
<b>Net cash flow from discontinued operations</b>	<b>\$</b>	<b>16.1</b>	<b>\$</b>	<b>16.0</b>



## NOTE 5 – SALE OF TMX ATRIUM

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In February 2017, the Company entered into an agreement to sell its wireless and extranet infrastructure services business known as TMX Atrium. As at March 31, 2017, the Company determined that the recoverable amount of the TMX Atrium cash generating unit ("CGU") was lower than its carrying amount. In making its assessment of the recoverable amount of the TMX Atrium CGU, the Company used the expected proceeds on sale, net of disposal costs. For the three months ended March 31, 2017, the impact of the calculation resulted in an impairment charge of \$4.8 related to goodwill in the consolidated income statement. Further, the Company determined that tax losses incurred by TMX Atrium were no longer recoverable and has written off \$2.9 of deferred income tax assets within the income tax expense line item in the consolidated income statement.

The sale of TMX Atrium closed on April 30, 2017. For the year ended December 31, 2016, TMX Atrium earned revenue of \$26.3 and incurred operating expenses before acquisition costs and strategic re-alignment expenses of \$30.3. For the four months ended April 30, 2017, TMX Atrium earned revenue of \$8.6 and incurred operating expenses before acquisition costs and strategic re-alignment expenses of \$9.5.

## NOTE 6 – SEGMENT INFORMATION

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

### (A) INFORMATION ABOUT REPORTABLE SEGMENTS

Prior to the sale of NGX and Shorcan Energy (note 4), the Company had five reportable segments which included the Energy Trading & Clearing segment. The Energy Trading & Clearing segment fully comprised of NGX and Shorcan Energy. As a result of the sale, the Company's four reportable segments are as follows:

- **Global Solutions, Insights & Analytics (formerly Market Insights):** to deliver integrated data sets to fuel high-value proprietary and third party analytics to help clients make better trading and investment decisions. The Company's operations included in the Global Solutions, Insights & Analytics segment are TMX Datalinx, TMX Insights and as of December 14, 2017, Trayport (note 3). On April 30, 2017, the Company completed the sale of TMX Atrium (note 5).
- **Capital Formation:** to energize and expand the "capital market community" to better facilitate capital raising for issuers of all types at all stages of their development and to provide access to alternative sources of capital. The Company's operations included in the Capital Formation segment are: Toronto Stock Exchange ("TSX"), a national stock exchange serving the senior equities market; TSX Venture Exchange, a national stock exchange serving the public venture equity market; TSX Private Markets, a registered exempt market dealer and TSX Trust, a provider of corporate trust, registrar, transfer agency and foreign exchange services.
- **Derivatives Trading & Clearing:** to intensify new product creation and leverage our unique market position to benefit from increasing demand for derivatives products both in Canada and globally. The Company's operations included in the Derivatives Trading and Clearing segment are Montréal Exchange, a national derivatives exchange; and Canadian Derivatives Clearing Corporation ("CDCC"), a clearinghouse for options and futures contracts and certain over-the-counter products and fixed income repurchase agreements.

As of July 1, 2016, the Company determined that it did not hold majority voting power in BOX Holdings Group LLC ("BOX Holdings"), which wholly-owns BOX Market LLC ("BOX"), an exchange for trading of United States ("US") equity options. Beginning July 1, 2016, the Company no longer consolidates BOX and accounts for its investment in BOX Holdings using the equity method. With the equity method, the results of BOX are not included other than the Company's share of BOX's net income (loss). Beginning the same date, the results from licensing technology to BOX are included in the Derivatives Trading & Clearing segment. The income from licensing technology to BOX was previously eliminated when BOX's operating results were consolidated.

- **Equities and Fixed Income Trading & Clearing:** to operate innovative, efficient, reliable, fast, easy to use platforms for equities trading and clearing. The Company's operations included in the Equities and Fixed Income Trading and Clearing segment are the trading operations of Toronto Stock Exchange, TSX Venture Exchange, and TSX Alpha Exchange; CDS Clearing and



Depository Services Inc. ("CDS Clearing"), an automated facility for the clearing and settlement of equities and fixed income transactions and custody of securities in Canada and Shorcan Brokers Limited, a fixed income inter-dealer broker.

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

Information related to each reportable segment is as follows:

For the year ended						December 31, 2017	
	Global Solutions Insights & Analytics	Capital Formation	Derivatives Trading & Clearing	Equities and Fixed Income Trading & Clearing	Other	Total	
Revenue (external)	\$ 186.5	\$ 188.7	\$ 114.8	\$ 182.1	\$ (3.2)	\$ 668.9	
Inter-segment revenue	0.6	—	—	1.5	(2.1)	—	
<b>Total revenue</b>	<b>\$ 187.1</b>	<b>\$ 188.7</b>	<b>\$ 114.8</b>	<b>\$ 183.6</b>	<b>\$ (5.3)</b>	<b>\$ 668.9</b>	
<b>Income from operations before acquisition costs and strategic re- alignment expenses</b>	<b>\$ 117.7</b>	<b>\$ 107.0</b>	<b>\$ 55.0</b>	<b>\$ 84.0</b>	<b>\$ (51.1)</b>	<b>\$ 312.6</b>	
<b>Selected items:</b>							
Depreciation and amortization	\$ 1.9	\$ 0.1	\$ 0.2	\$ 0.5	\$ 48.9	\$ 51.6	
Impairment charges	\$ —	\$ —	\$ —	\$ —	\$ 6.5	\$ 6.5	

For the year ended						December 31, 2016	
	Global Solutions Insights & Analytics	Capital Formation	Derivatives Trading & Clearing	Equities and Fixed Income Trading & Clearing	Other	Total	
Revenue (external)	\$ 208.3	\$ 182.9	\$ 117.5	\$ 173.5	\$ 1.5	\$ 683.7	
Inter-segment revenue	1.8	—	—	1.8	(3.6)	—	
<b>Total revenue</b>	<b>\$ 210.1</b>	<b>\$ 182.9</b>	<b>\$ 117.5</b>	<b>\$ 175.3</b>	<b>\$ (2.1)</b>	<b>\$ 683.7</b>	
<b>Income from operations before acquisition costs and strategic re- alignment expenses</b>	<b>\$ 108.2</b>	<b>\$ 113.6</b>	<b>\$ 46.0</b>	<b>\$ 75.2</b>	<b>\$ (42.9)</b>	<b>\$ 300.1</b>	
<b>Selected items:</b>							
Depreciation and amortization	\$ 3.0	\$ 0.2	\$ 2.9	\$ 0.4	\$ 50.1	\$ 56.6	
Impairment charges	\$ —	\$ —	\$ —	\$ —	\$ 8.9	\$ 8.9	

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

Income from operations before acquisition costs and strategic re-alignment expenses and income from operations are important indicators of the Company's ability to generate liquidity through operating cash flow to fund future working capital needs, service outstanding debts, and fund future capital expenditures. Impairment charges includes impairment of goodwill and intangibles originating from acquisitions and is not considered an operating item. The intent of these performance measures is to provide additional useful information to investors and analysts; however, should not be considered in isolation.

**(B) INFORMATION ABOUT GEOGRAPHICAL AREAS**

The Company's revenue by geography is as follows:

For the year ended	December 31, 2017	December 31, 2016
Canada	\$ 511.0	\$ 493.2
US	118.2	145.6
UK	16.7	16.2
Other	23.0	28.7
	\$ 668.9	\$ 683.7

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

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

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

As at	December 31, 2017	December 31, 2016
Canada	\$ 5,150.5	\$ 4,373.6
UK	20.5	—
US	21.3	45.9
Other	0.8	10.6
	\$ 5,193.1	\$ 4,430.1

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

**NOTE 7 – FINANCE INCOME AND FINANCE COSTS**

Finance income comprises interest income on funds invested, and changes in the fair value of marketable securities. Finance costs comprise interest expense on borrowings and finance leases. Any realized gains or losses on interest rate swaps and foreign currency forward contracts are also included within net finance costs in the consolidated income statement.

Net finance costs for the period is as follows:

For the year ended	Note	December 31, 2017	December 31, 2016
<b>Finance income</b>			
Interest income on funds invested	15	\$ 2.9	\$ 1.7
Net settlement on derivative instruments	3	10.2	—
		13.1	1.7
<b>Finance costs</b>			
Interest expense on borrowings, including foreign exchange and amortization of financing fees	12	(29.0)	(31.8)
Net settlement on interest rate swaps	12	1.0	(1.1)
Unwinding of the discount on provisions	21	(0.1)	(0.2)
		(28.1)	(33.1)
		\$ (15.0)	\$ (31.4)

## NOTE 8 – EARNINGS PER SHARE

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

Basic and diluted earnings per share both before and including discontinued operations (note 4) for the period are as follows:

For the year ended	December 31, 2017			December 31, 2016		
	Before discontinued operations	Discontinued operations	Total	Before discontinued operations	Discontinued operations	Total
<b>Net income attributable to the equity holders of the Company</b>	\$ 191.2	\$ 176.8	\$ 368.0	\$ 180.7	\$ 15.7	\$ 196.4
Weighted average number of common shares outstanding – basic	55,285,668	55,285,668	55,285,668	54,616,160	54,616,160	54,616,160
Effect of dilutive share options	444,769	444,769	444,769	194,378	194,378	194,378
Weighted average number of common shares outstanding – diluted	55,730,437	55,730,437	55,730,437	54,810,538	54,810,538	54,810,538
<b>Basic earnings per share</b>	\$ 3.46	\$ 3.20	\$ 6.66	\$ 3.31	\$ 0.29	\$ 3.60
<b>Diluted earnings per share</b>	\$ 3.43	\$ 3.17	\$ 6.60	\$ 3.30	\$ 0.28	\$ 3.58

## NOTE 9 – INCOME TAXES

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

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

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

For the year ended	December 31, 2017	December 31, 2016
<b>Current income tax expense:</b>		
Income tax for the current period	\$ 83.3	\$ 79.8
Adjustments in respect of prior years	0.1	0.6
<b>Deferred income tax expense:</b>		
Origination and reversal of temporary differences	\$ (3.3)	\$ (15.7)
Adjustments in respect of prior years	(2.3)	0.3
Changes in substantively enacted income tax rates	8.3	(3.2)
Write-down of deferred income tax assets	2.9	—
<b>Income tax expense before discontinued operations</b>	<b>89.0</b>	<b>61.8</b>
Income tax expense on discontinued operations before gain on sale (note 4)	4.9	4.0
Income tax expense on sale of NGX and Shorcan Energy (note 4)	45.4	—
<b>Total income tax expense</b>	<b>\$ 139.3</b>	<b>\$ 65.8</b>

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

Uncertain income tax positions are recognized in the financial statements using management's best estimate of the amount expected to be paid.

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

Income tax expense attributable to income differs from the amounts computed by applying the combined federal and provincial income tax rate of 26.5% (2016 – 26.5%) to income before discontinued operations and income taxes as a result of the following:

For the year ended	December 31, 2017		December 31, 2016	
<b>Income before income tax expense and income from discontinued operations</b>	\$	<b>280.2</b>	\$	241.8
Computed expected income tax expense	\$	<b>74.3</b>	\$	64.1
Impairment charges (note 17)		<b>1.7</b>		2.4
Non-deductible expenses		<b>0.9</b>		0.9
Adjustments in respect of prior years		<b>(2.2)</b>		0.9
Changes in substantively enacted income tax rates		<b>8.3</b>		(3.2)
Write-down of deferred income tax assets		<b>2.9</b>		—
Acquisition costs, net of realized foreign exchange gains (note 3)		<b>2.3</b>		—
Sale of TMX Atrium (note 5)		<b>1.4</b>		—
Loss of control of BOX Holdings		—		(2.8)
Rate adjustments due to US tax legislative changes		—		(0.8)
Other		<b>(0.6)</b>		0.3
<b>Income tax expense before discontinued operations</b>	\$	<b>89.0</b>	\$	61.8

During the year ended December 31, 2017, the British Columbia general corporate income rate was increased to 12% from 11%, effective January 1, 2018. The Company recognized \$2.5 in deferred income tax expense as a result of the rate change, which became substantively enacted on October 26, 2017.

As part of the US tax reform that was enacted on December 22, 2017, the US federal corporate tax rate was reduced from 35% to 21%, effective January 1, 2018. As a result of this rate change the Company recognized \$5.8 in deferred income tax expense.

During the year ended December 31, 2016, the Province of Quebec decreased the general corporate income tax rate from 11.9% to 11.5% over four years, effective January 1 of each year, as follows: 2017 – 11.8%, 2018 – 11.7%, 2019 – 11.6% and 2020 – 11.5%. The Company recognized \$3.2 in deferred income tax recovery as a result of the rate change, which became substantively enacted on November 15, 2016.

## (B) DEFERRED INCOME TAX ASSETS AND LIABILITIES

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

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

	Assets		Liabilities		Net	
	2017	2016	2017	2016	2017	2016
Premises and equipment	\$ 6.0	\$ 5.4	\$ (0.7)	\$ (2.6)	\$ 5.3	\$ 2.8
Cumulative eligible capital / intangible assets	<b>22.8</b>	29.2	<b>(860.6)</b>	(852.2)	<b>(837.8)</b>	(823.0)
Tax loss carry-forwards	<b>6.1</b>	27.4	—	—	<b>6.1</b>	27.4
Employee future benefits	<b>4.9</b>	4.7	<b>(2.0)</b>	(2.5)	<b>2.9</b>	2.2
Share-based payments	<b>10.6</b>	9.0	—	—	<b>10.6</b>	9.0
Other	<b>3.9</b>	6.4	<b>(0.4)</b>	(1.0)	<b>3.5</b>	5.4
<b>Deferred income tax assets (liabilities)</b>	\$ <b>54.3</b>	\$ 82.1	\$ <b>(863.7)</b>	\$ (858.3)	\$ <b>(809.4)</b>	\$ (776.2)
Set off of tax	<b>(39.3)</b>	(45.3)	<b>39.3</b>	45.3	—	—
<b>Net deferred income tax assets (liabilities)</b>	\$ <b>15.0</b>	\$ 36.8	\$ <b>(824.4)</b>	\$ (813.0)	\$ <b>(809.4)</b>	\$ (776.2)

Income tax assets and liabilities are offset in the financial statements if there is a legally enforceable right to offset them and they relate to income taxes levied by the same taxation authority on the same taxable entity, or on different taxable entities but the Company intends to settle them on a net basis or where the income tax assets and liabilities will be realized simultaneously.

Movements in the deferred income tax balances in the year are as follows:

	Premises and equipment	Cumulative eligible capital/intangible assets	Tax loss carry-forwards	Employee future benefits	Share-based payments	Other	Total
Balance at January 1, 2016	\$ 3.5	\$ (834.7)	\$ 20.1	\$ 2.4	\$ 4.3	\$ 8.7	\$ (795.7)
Recognized in net income	(0.7)	10.8	7.4	(0.5)	4.7	(3.1)	18.6
Recognized in discontinued operations	—	0.5	(0.2)	—	—	0.3	0.6
Recognized in other comprehensive loss	—	—	—	0.3	—	(0.4)	(0.1)
Recognized in equity	0.3	0.7	(0.1)	—	—	(0.1)	0.8
Effect of movements in exchange rates	(0.3)	(0.3)	0.2	—	—	—	(0.4)
Balance at December 31, 2016	2.8	(823.0)	27.4	2.2	9.0	5.4	(776.2)
Recognized in net income	2.0	1.7	(9.7)	0.4	1.6	(1.6)	(5.6)
Recognized in discontinued operations	(0.1)	49.4	(11.3)	(0.6)	—	(0.3)	37.1
Recognized through acquisition of Trayport	0.5	(65.0)	—	—	—	0.1	(64.4)
Recognized in other comprehensive loss	—	—	—	0.9	—	—	0.9
Effect of movements in exchange rates	0.1	(0.9)	(0.3)	—	—	(0.1)	(1.2)
Balance at December 31, 2017	\$ 5.3	\$ (837.8)	\$ 6.1	\$ 2.9	\$ 10.6	\$ 3.5	\$ (809.4)

As at December 31, 2017, nil and \$6.1 of the above deferred income tax assets related to tax losses incurred in Canada and the US, respectively (2016 – \$15.0 and \$12.4, respectively). Recoverability of these assets is dependent upon the availability of future taxable profits within these legal entities. The Company believes that these losses will be recoverable.

No deferred income tax assets have been recognized in respect of the following temporary differences:

As at	December 31, 2017	December 31, 2016
Tax losses	\$ 46.5	\$ 46.9
Other deductible temporary differences	203.6	170.4
	\$ 250.1	\$ 217.3

At December 31, 2017, \$4.8 of the above income tax losses will expire by 2034 (2016 – \$12.3 by 2034). The remainder have no expiry date under currently applicable income tax legislation. Deferred income tax assets have not been recognized in respect of these items because it is not probable that future taxable profit will be available against which the Company can utilize the tax losses. However, the Company will continue to pursue tax planning strategies to utilize the tax losses where possible.

At December 31, 2017, deferred income tax liabilities for temporary differences of \$1.1 relating to investments in certain domestic and foreign subsidiaries were not recognized as the Company is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future (2016 – \$130.2). Temporary differences relating to the remaining domestic subsidiaries have not been recognized as the temporary difference can be settled without tax consequences.

## NOTE 10 – BALANCES WITH PARTICIPANTS, CLEARING MEMBERS, AND CONTRACTING PARTIES

Balances with Participants, Clearing Members, and Contracting Parties on the consolidated balance sheets are comprised of:

As at	December 31, 2017	December 31, 2016
Balances with Participants	\$ 691.7	\$ 731.4
Balances with Clearing Members	18,377.0	14,741.3
Clearing Members cash collateral	877.3	842.8
<b>Balances with Clearing Members and Participants</b>	<b>\$ 19,946.0</b>	<b>\$ 16,315.5</b>
Energy contracts	\$ —	\$ 781.3
Fair value of open energy contracts	—	150.2
<b>Balances with Contracting Parties</b>	<b>\$ —</b>	<b>\$ 931.5</b>

There is no impact on the consolidated balance sheets as an equivalent amount is recognized in both assets and liabilities.

### (A) CDS CLEARING, SETTLEMENT AND PARTICIPANT BALANCES

Balances with Participants includes the cash collateral pledged and deposited with CDS Clearing and cash dividends, interest and other cash distributions awaiting distribution (“entitlements and other funds”) on securities held under custody in the depository. Cash collateral is held by CDS Clearing at the Bank of Canada and National Securities Clearing Corporation (“NSCC”)/Depository Trust Company (“DTC”) and is recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the Participants.

	December 31, 2017	December 31, 2016
Entitlements and other funds	\$ 186.0	\$ 230.0
Participants cash collateral	505.7	501.4
<b>Balances with Participants</b>	<b>\$ 691.7</b>	<b>\$ 731.4</b>

The margin deposits of CDS Clearing are held in liquid instruments. CDS Clearing's New York Link (“NYL”) service does not apply strict limits to a Participant's end-of-day payment obligation, creating the potential for unlimited liquidity risk exposure if a user of the service were to default on its obligation. CDS Clearing manages this risk through active monitoring of payment obligations and a committed liquidity facility which covers the vast majority of potential Participant default scenarios. Residual liquidity risk in excess of CDS Clearing's liquidity facility is transferred to surviving Participant users of the NYL service and as a result CDS Clearing's liquidity risk exposure is limited to a maximum of its available liquidity facility.

At December 31, 2017, as a result of calculations of Participants' exposure, the total amount of collateral required by CDS Clearing was \$5,888.3 (2016 – \$5,572.0). The actual collateral pledged to CDS Clearing at December 31 is summarized below:

	December 31, 2017	December 31, 2016
Cash (included within Balances with Participants on the consolidated balance sheet)	\$ 505.7	\$ 501.4
Treasury bills and fixed income securities	6,283.7	6,129.0
<b>Total collateral pledged</b>	<b>\$ 6,789.4</b>	<b>\$ 6,630.4</b>

Non-cash collateral is not included in the Company's consolidated balance sheets.

### (B) CDCC CLEARING, SETTLEMENT AND CLEARING MEMBER BALANCES

Balances with Clearing Members includes balances with clearing members of CDCC (“Clearing Members”) as follows:

- Daily settlements due from, and to, Clearing Members – These balances result from marking open futures positions to market and settling option transactions each day. These amounts are required to be collected from and paid to Clearing Members prior to the commencement of trading the next day. There is no impact on the consolidated balance sheet as an equivalent amount is recognized in both assets and liabilities.

At December 31, 2017, the gross amount of daily settlements due from, and to, Clearing Members was \$25.2 and \$25.2, respectively (2016 – \$180.0 and \$180.0). These balances are then netted by Clearing Member at the balance sheet date, for cash to be paid or received on mark-to-market on futures, options premium and cash margin shortage or excess.

- Net amounts receivable/payable on open REPO agreements – OTC REPO agreements between buying and selling Clearing Members are novated to CDCC whereby the rights and obligations of the Clearing Members under the REPO agreements

are cancelled and replaced by new agreements with CDCC. Once novation occurs, CDCC becomes the counterparty to both the buying and selling Clearing Member. As a result, the contractual right to receive and return the principal amount of the REPO as well as the contractual right to receive and pay interest on the REPO is thus transferred to CDCC.

These balances represent outstanding balances on open REPO agreements. At December 31, 2017, the gross amount of open REPO contracts receivable and payable was \$30,585.7 and \$30,585.7 (2016 – \$27,037.7 and \$27,037.7). These contracts when broken down by Clearing Member give rise to gross receivable and gross payable positions. As allowed under CDCC rules, receivable and payable balances outstanding with the same Clearing Member are offset when they are in the same currency and are to be settled on the same day, as CDCC has a legally enforceable right to offset and the intention to net settle. The balances include both the original principal amount of the REPO and the accrued interest, both of which are carried at amortized cost. As CDCC is the central counterparty, an equivalent amount is recognized in both the Company's assets and liabilities.

The following table sets out the carrying amounts of Balances with Clearing Members that are subject to offsetting, enforceable master netting arrangements and similar arrangements:

As at				December 31, 2017
Asset/(Liability)	Gross asset or (liability) for counterparties in a net asset / (net liability) position	Liabilities / (assets) offset against net assets/ (net liabilities) by counterparties	Net amounts presented in the consolidated balance sheet	
<b>Financial assets</b>				
Daily settlements due from Clearing Members	\$ 22.7	\$ (0.5)	22.2	
Net amounts receivable on open REPO agreements	23,072.9	(4,718.1)	18,354.8	
	23,095.6	(4,718.6)	18,377.0	
<b>Financial liabilities</b>				
Daily settlements due to Clearing Members	(24.6)	2.4	(22.2)	
Net amounts payable on open REPO agreements	(25,867.6)	7,512.8	(18,354.8)	
	(25,892.2)	7,515.2	(18,377.0)	
<b>Net amount</b>	<b>\$ (2,796.6)</b>	<b>\$ 2,796.6</b>	<b>\$ —</b>	

As at				December 31, 2016
Asset/(Liability)	Gross asset or (liability) for counterparties in a net asset / (net liability) position	Liabilities / (assets) offset against net assets/ (net liabilities) by counterparties	Net amounts presented in the consolidated balance sheet	
<b>Financial assets</b>				
Daily settlements due from Clearing Members	\$ 178.9	\$ (1.1)	177.8	
Net amounts receivable on open REPO agreements	16,615.4	(2,051.9)	14,563.5	
	16,794.3	(2,053.0)	14,741.3	
<b>Financial liabilities</b>				
Daily settlements due to Clearing Members	(178.9)	1.1	(177.8)	
Net amounts payable on open REPO agreements	(24,985.8)	10,422.3	(14,563.5)	
	(25,164.7)	10,423.4	(14,741.3)	
<b>Net amount</b>	<b>\$ (8,370.4)</b>	<b>\$ 8,370.4</b>	<b>\$ —</b>	

For the year ended December 31, 2017, the largest settlement amount due from a Clearing Member was \$173.0 (2016 – \$179.4), and the largest settlement amount due to a Clearing Member was \$149.9 (2016 – \$191.5). These settlement amounts do not reflect net amounts from open REPO agreements, which are also due from Clearing Members.

Clearing Members' cash collateral are comprised of cash margin deposits and cash clearing fund deposits from Clearing Members which are held by CDCC with the Bank of Canada. Cash collateral, either as margin against open positions or as part of the clearing fund, are held by CDCC and are recognized as an asset and an equivalent and offsetting liability is recognized as these amounts are ultimately owed to the Clearing Members. There is no impact on the consolidated balance sheet as an equivalent amount is recognized in both assets and liabilities.



The actual collateral pledged to CDCC at December 31 is summarized below:

	December 31, 2017		December 31, 2016
<b>Cash collateral held:</b>			
Clearing Members' cash margin deposits	\$	727.9	\$ 720.0
Clearing fund cash deposits		149.4	122.8
	\$	877.3	\$ 842.8

Non-cash margin deposit and non-cash clearing fund deposit collateral pledged to CDCC under irrevocable agreements is held in government securities, put letters of guarantee and equity securities with approved depositories. Clearing Members may also pledge escrow receipts directly with CDCC. The non-cash collateral pledged to CDCC at December 31 is summarized below:

	December 31, 2017		December 31, 2016
<b>Non-cash collateral pledged:</b>			
Non-cash margin deposits	\$	8,413.5	\$ 6,926.2
Non-cash clearing fund deposits		956.1	571.3
	\$	9,369.6	\$ 7,497.5

Non-cash collateral is not included in the Company's consolidated balance sheets.

#### (C) TSX TRUST ASSETS UNDER ADMINISTRATION

TSX Trust administers various segregated funds, representing amounts held on behalf of clients in connection with corporate trust and similar services. The actual assets under administration in TSX Trust at December 31 is summarized below:

	December 31, 2017		December 31, 2016
Cash	\$	221.1	\$ 656.3
Treasury bills and fixed income securities		406.0	680.6
<b>Total assets under administration</b>	\$	627.1	\$ 1,336.9

Since these amounts are not controlled by TSX Trust or by the Company, assets under administration are not included in the consolidated balance sheet.

#### (D) NGX CLEARING AND SETTLEMENT BALANCES

On December 14, 2017, the Company sold NGX to ICE (note 4).

At December 31, 2016, NGX clearing and settlement balances include the following:

- Energy contracts receivable and energy contracts payable – These balances represent the amounts receivable and payable where physical delivery of energy trading contracts has occurred and/or settlement amounts have been determined but payments have not yet been made. There is no impact on the consolidated balance sheet as an equivalent amount is recognized in both the assets and the liabilities.
- Fair value of open energy contracts – These balances represent the fair value at the balance sheet date of the undelivered physically settled energy trading contracts and the forward cash settled energy trading contracts. NGX has classified its open energy contracts receivable and payable as fair value through profit and loss. Fair value is determined based on the difference between the trade price when the contract was entered into and the settlement price. The settlement price is a price designated by NGX for each trading instrument in each trading hub at market close and is used in conjunction with published market price bands. Depending on the term and type of instrument, some settlement prices can be derived from actual trading data from NGX's trading system, daily market surveys and/or industry reports. There is no impact on the consolidated balance sheet as an equivalent amount is recognized in both the assets and the liabilities.

NGX requires each Contracting Party to sign the Contracting Party's agreement, which is a standardized agreement that allows for netting of positive and negative exposures associated with a single Contracting Party.



The following table sets out the carrying amounts of recognized financial instruments that are subject to the agreement as at December 31, 2016:

As at			December 31, 2016	
		Gross amount	Amount offset in the consolidated balance sheet	Net amounts presented in the consolidated balance sheet
<b>Financial assets</b>				
Energy contracts receivable	\$	3,802.4	\$ (3,021.1)	\$ 781.3
Fair value of open energy contracts receivable		1,668.4	(1,518.2)	150.2
		5,470.8	(4,539.3)	931.5
<b>Financial liabilities</b>				
Energy contracts payable		(3,802.4)	3,021.1	(781.3)
Fair value of open energy contracts payable		(1,668.4)	1,518.2	(150.2)
		(5,470.8)	4,539.3	(931.5)
Net amount	\$	—	\$ —	\$ —

NGX required each Contracting Party to provide sufficient collateral, in the form of cash or letters of credit, to exceed its outstanding credit exposure, including contract replacement costs at current market prices, as determined by NGX in accordance with its margining methodology. The cash collateral deposits and letters of credit are held by a major Canadian chartered bank. This collateral would have been accessed by NGX in the event of default by a Contracting Party. NGX measured total potential exposure for both credit and market risk for each Contracting Party on a real-time basis as the aggregate of:

- outstanding energy contracts receivable;
- "Variation Margin," comprised of the aggregate "mark to market" exposure for all forward purchase and sale contracts; and
- "Initial Margin," an amount that estimates the potential Contracting Party loss in their portfolio under an adverse price movement to a 99.7% confidence interval during a liquidation period.

NGX also ensures that it maintains sufficient liquid resources to cover twelve months of operating costs as well as the daily settlement requirement of its largest single Contracting Party under a stressed market scenario. For the year ended December 31, 2016, the largest amount due from a Contracting Party was \$45.4 in US dollars ("US\$") and the largest amount due to a Contracting Party was US\$61.3.

The actual collateral pledged to NGX at December 31 is summarized below:

	December 31, 2016	
Cash collateral deposits	\$	495.7
Letters of credit		2,080.5
<b>Total collateral pledged</b>	\$	2,576.2

The actual collateral pledged to NGX is not included in the consolidated balance sheet in 2016.

## NOTE 11 – FINANCIAL RISK MANAGEMENT

The Company is exposed to a number of financial risks as a result of its operations, which are discussed below. It seeks to monitor and minimize adverse effects from these risks through its risk management policies and processes.

### (A) CREDIT RISK

Credit risk is the risk of loss due to the failure of a borrower, counterparty, Clearing Member, or Participant to honour their financial obligations. It arises principally from the Company's clearing operations of CDS Clearing, and CDCC, the operations of TSX Trust, the brokerage operations of Shorcan, cash and cash equivalents, restricted cash and cash equivalents, marketable securities, trade receivables, interest rate swaps and total return swaps.

#### (i) Clearing and/or brokerage operations

The Company is exposed to credit risk in the event that Participants, in the case of CDS Clearing; Clearing Members, in the case of CDCC; and clients, in the case of TSX Trust and Shorcan, fail to fulfill their financial obligations.

## CDS Clearing

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

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

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

Through NYL and DTC Direct Link ("DDL"), credit risk exposures at CDS Clearing are created. During the course of each business day, settlement transactions by the NSCC/DTC can result in a net payment obligation from NSCC/DTC to CDS Clearing or the obligation of CDS Clearing to make a payment to NSCC/DTC. As a corollary result, CDS Clearing has a legal right to receive the funds from sponsored Participants in a debit position or has an obligation to pay the funds to sponsored Participants in a credit position.

The potential failure of the Participant to meet its payment obligation to CDS Clearing in the NYL or DDL services results in a payment risk. To mitigate the risk of default, CDS Clearing has in place default risk mitigation mechanisms to minimize losses to the surviving Participants as set out in the CDS Clearing Participant Rules. The process includes Participants posting collateral with CDS Clearing and NSCC/DTC (note 10).

The risk exposure of CDS Clearing in these central counterparty services is mitigated through a daily mark-to-market of each Participant's obligations as well as risk-based collateral requirements calculated daily. These mitigants are intended to cover the vast majority of market changes and are tested against actual price changes on a regular basis. This testing is supplemented with analysis of the effects of extreme market conditions on a collateral valuation and market risk measurements which are used to determine additional collateral requirements of Participants to a Default Fund established in 2015. Should the collateral of a defaulter in a central counterparty service be insufficient, either because the value of the collateral has declined or the loss to be covered by the collateral exceeded the collateral requirement, the surviving Participants in the service are required to cover any residual losses. Cash collateral is held by CDS Clearing at the Bank of Canada and NSCC/DTC and non-cash collateral pledged by Participants under Participant Rules is held by CDS Clearing (note 10).

As of January 1, 2016, CDS Clearing also holds \$1.0 of its cash and cash equivalents and marketable securities to contribute pre-funded resources to its CNS default waterfall. This Default Fund of \$1.0 would be accessed following the exhaustion of a suspended Participant's CNS Participant Fund and Default Fund contribution.

CDS Clearing may receive payment from securities issuers for entitlements, for example, maturity or interest payments, prior to the date of payment to the Participants holding those securities. In rare circumstances, due to the timing of receipt of these payments or due to market conditions, these funds may be held with a major Canadian chartered bank. As a result, CDS Clearing could be exposed to the credit risk associated with the potential failure of the bank.

## CDCC

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

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

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

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

CDCC's margining system is complemented by a Daily Capital Margin Monitoring (DCMM) process that evaluates the financial strength of a Clearing Member against its margin requirements. CDCC monitors the margin requirement of a Clearing Member as a percentage of its capital (net allowable assets). CDCC will make additional margin calls when the ratio of margin requirement/net allowable assets exceeds 100%. The additional margin is equal to the excess of the ratio over 100% and is meant to ensure that Clearing Member leverage in the clearing activities does not exceed the value of the firm. In 2015, CDCC introduced additional margin surcharges to manage the risk exposures associated with specific business related risks. These include: concentration charges for Clearing Members that are overly concentrated in certain positions, wrong-way risk charges for those Clearing Members holding positions which are highly correlated with their own credit risk profile, mismatched settlement surcharges which are meant to mitigate the risk of cherry-picking by a potential defaulter in the settlement process.

Global regulatory requirements for central-counterparties (CCPs), like CDCC, have highlighted the need for CCPs to have a component of their capital at risk in the default management process. CDCC holds \$10.0 of its cash and cash equivalents and marketable securities to cover the potential loss incurred due to Clearing Member defaults (note 13). This \$10.0 would be accessed in the event that a defaulting Clearing Member's margin and clearing fund deposits are insufficient to cover the loss incurred by CDCC. The \$10.0 is allocated into two separate tranches. The first tranche of \$5.0 is intended to cover the loss resulting from the first defaulting Clearing Member. If the loss incurred is greater than \$5.0, and as such the first tranche is fully depleted, CDCC will fully replenish the first tranche using the second tranche of \$5.0. This second tranche is in place to ensure there is \$5.0 available in the event of an additional Clearing Member default.

CDCC's cash margin deposits and cash clearing fund deposits are held at the Bank of Canada thereby alleviating the credit risk CDCC would face with deposits held at commercial banks. CDCC's non-cash margin deposits and non-cash clearing fund deposits are pledged to CDCC under irrevocable agreements and are held by approved depositories (note 10). This collateral may be seized by CDCC in the event of default by a Clearing Member.

#### **TSX Trust**

TSX Trust is exposed to credit risk on foreign exchange transactions processed for clients in the event that either the client or the financial counterparty fails to settle contracts for which foreign exchange rates have moved unfavourably. The risk of a financial counterparty failing to settle a transaction is considered remote as TSX Trust deals only with reputable financial institutions comprised of Canadian major chartered banks.

#### **Shorcan**

Shorcan is exposed to credit risk in the event that customers fail to settle on the contracted settlement date. This risk is limited by their status as agents, in that they do not purchase or sell securities for their own account. As agents, in the event of a failed trade, Shorcan has the right to withdraw its normal policy of anonymity and advise the two counterparties to settle directly.

#### **(ii) Cash and cash equivalents and restricted cash and cash equivalents**

The Company manages its exposure to credit risk on its cash and cash equivalents and restricted cash and cash equivalents by holding the majority of its cash and cash equivalents with major Canadian chartered banks or in Government of Canada treasury bills.

#### **(iii) Marketable securities**

The Company manages its exposure to credit risk arising from investments in marketable securities by holding investment funds that actively manage credit risk or by holding high-grade individual fixed income securities or term deposits with credit ratings of A/R1-low or better. In addition, when holding individual fixed income securities, the Company will limit its exposure to any non-government security. The investment policy of the Company will only allow excess cash to be invested in money

market securities or fixed income securities; however the majority of the portfolio is held within bank deposits, notes and treasury bills.

**(iv) Trade receivables**

The Company's exposure to credit risk resulting from uncollectable accounts is influenced by the individual characteristics of its customers, many of whom are banks and financial institutions. The Company invoices its customers on a regular basis and maintains a collections team to monitor customer accounts and minimize the amount of overdue receivables. There is no concentration of credit risk arising from trade receivables from a single customer. In addition, customers that fail to maintain their account in good standing risk loss of listing, trading, clearing, data access privileges and other services.

**(v) Interest rate swaps and total return swaps**

The Company limits its exposure to counterparty credit risk on its interest rate swaps and its total return swaps by contracting with major Canadian chartered banks.

**(B) MARKET RISK**

Market risk is the risk of loss due to changes in market prices and rates, such as foreign exchange rates, interest rates, commodity prices and equity prices.

**(i) Foreign currency risk**

The Company is exposed to foreign currency risk on revenue and expenses where it invoices or procures in a foreign currency. It is also exposed to foreign currency risk on cash and cash equivalents, trade receivables and trade payables denominated in foreign currencies, principally in US dollars. As at December 31, 2017, cash and cash equivalents and trade receivables, net of current liabilities, include US\$14.1, which are exposed to changes in the US-Canadian dollar exchange rate, £1.5, which are exposed to changes in the British Pound Sterling-Canadian dollar exchange rate, €0.7, which are exposed to changes in the Euro-Canadian dollar exchange rate (2016 – US\$20.3, £0.2 and €0.6). In addition, net assets related to Trayport and other foreign operations are denominated in US dollars, Euros ("EUR") and British Pound Sterling ("GBP"), and the effect of foreign exchange rate movements on the Company's share of these net assets is included in accumulated other comprehensive income in the consolidated balance sheet.

The Company is also exposed to foreign currency risk on its US dollar advances on Commercial Paper. At December 31, 2017, advances on Commercial Paper include US\$15.0, which is exposed to changes in the US-Canadian dollar exchange rate (2016 – US\$15.0).

The Company does not currently employ currency hedging strategies with respect to its operating activities, and therefore significant moves in exchange rates, specifically a strengthening of the Canadian dollar against the US dollar could have an adverse effect on the value of the Company's net income or net assets in Canadian dollars.

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

**(ii) Interest rate risk**

The Company is exposed to interest rate risk on its marketable securities, its debentures and Commercial Paper.

At December 31, 2017, the Company held \$50.1 in marketable securities, all of which were held in treasury bills (2016 – \$61.8, all of which were held in treasury bills).

The Company also has \$395.3 of Commercial Paper (note 12). The Company has entered into an interest rate swap agreement to partially manage its exposure to interest rate fluctuations on its Commercial Paper.

**(iii) Equity price risk**

The Company is exposed to equity price risk arising from its share-based payments, as the Company's obligation under these arrangements are partly based on the price of the Company's shares. The Company has entered into TRSs as a partial economic hedge to the share appreciation rights of these share-based payments.

**(iv) Other market price risk**

The Company is exposed to market risk factors from the activities of CDCC, CDS Clearing and Shorcan, if a Clearing Member, Participant or client, as the case may be, fails to take or deliver either derivative products or securities on the contracted settlement date where the contracted price is less favourable than the current market price.

**CDCC**

CDCC is exposed to market risk through its CCP function in the event of a Participant default as it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions.

The principal mitigation of the market risk exposure post default is the default management process. CDCC has developed detailed default management processes that would enable it to neutralize the market exposures through either its auction process or via open markets operations within prescribed time periods. Any losses from such operations would be set-off against the margin and clearing fund (if necessary) collateral that are pre-funded by all Clearing Members for these purposes.

**CDS Clearing**

CDS Clearing is exposed to market risk through its CCP function in the event of a Participant default as it becomes the legal counterparty to all of the defaulters' novated transactions and must honor the financial obligations that arise from those novated transactions.

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

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

Settlements in the clearing and settlement services occur in both Canadian and US dollars. Foreign exchange risk is created when the currency of the payment obligation is different from the valuation currency of the collateral supporting that payment obligation. This risk is mitigated by discounting the collateral value of securities where these mismatches occur.

**TSX and TSX Venture Exchange**

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

**Shorcan**

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

(v) Market risk sensitivity summary

	Change in underlying factor		Impact on income before income taxes	Impact on equity attributable to equity holders of the Company
<b>Foreign currency</b>				
USD, EUR and GBP currency	+10.0%	\$	2.1	\$ 5.3
USD, EUR and GBP currency	-10.0%		(2.1)	(5.3)
USD advances on Commercial Paper	+10.0%		(1.9)	n/a
USD advances on Commercial Paper	-10.0%		1.9	n/a
<b>Interest rates</b>				
Marketable securities	+1.0%	\$	(0.1)	n/a
Marketable securities	-1.0%		0.1	n/a
Interest rate swaps	+1.0%		1.4	n/a
Interest rate swaps	-1.0%		(1.4)	n/a
Commercial Paper	+1.0%		(4.0)	n/a
Commercial Paper	-1.0%		4.0	n/a
Debentures	+1.0%		n/a	n/a
Debentures	-1.0%		n/a	n/a
<b>Equity price</b>				
RSUs and DSUs	+25.0%	\$	(10.1)	n/a
RSUs and DSUs	-25.0%		9.7	n/a
TRS	+25.0%		8.1	n/a
TRS	-25.0%		(6.6)	n/a

(C) LIQUIDITY RISK

Liquidity risk is the risk of loss due to the inability of the Company to meet its, or of the Company's borrowers, counterparties, Clearing Members, or Participants to meet their obligations in a timely manner or at reasonable prices. The Company manages liquidity risk through the management of its cash and cash equivalents and marketable securities, all of which are held in short-term instruments, and its debentures, credit and liquidity facilities and Commercial Paper (note 12) and capital (note 13).

The contractual maturities of the Company's financial liabilities are as follows:

As at	December 31, 2017		
	Less than 1 year	Between 1 and 5 years	Greater than 5 years
Participants' tax withholdings*	\$ 116.3	\$ —	\$ —
Accrued interest payable	6.5	—	—
Other trade and other payables	57.4	—	—
Provision for strategic re-alignment costs	4.2	—	—
Obligation under finance leases	0.1	—	—
Balances with Clearing Members and Participants*	19,946.0	—	—
Interest rate swaps	—	1.1	—
Commercial Paper	395.3	—	—
Debentures	400.0	—	550.0

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

## NOTE 12 – DEBT, CREDIT AND LIQUIDITY FACILITIES

The Company is exposed to liquidity risk through its clearing operations and capital structure (note 11). To manage this risk, the Company has arranged various liquidity and credit facilities, Commercial Paper and debentures as a source of financing. If, as a result of not meeting its covenants under the trust indentures, the terms of the Commercial Paper program or the credit facilities, the Company may be required to seek potentially less favourable sources of financing.

### (A) DEBT

The Company has the following debt outstanding at December 31:

	Interest rate	Maturity date(s)	Principal/ Authorized	2017 Carrying amount	2016 Carrying amount
Series A Debentures	3.253%	Oct 3, 2018	\$ 400.0	\$ 399.8	\$ 399.5
Series B Debentures	4.461%	Oct 3, 2023	250.0	249.2	249.2
Series D Debentures	2.997%	Dec 11, 2024	300.0	298.3	—
<b>Debentures</b>				<b>947.3</b>	648.7
Commercial Paper	1.36%-1.41% / USD 1.47%-1.60%	January 5 - February 13, 2018	500.0	395.3	309.9
<b>Commercial Paper</b>				<b>395.3</b>	309.9
TMX Group Limited credit facility	1 month B.A./LIBOR + 137.5 bps	May 2, 2020	500.0	—	—
<b>Credit facility</b>				<b>—</b>	—
<b>Total debt</b>				<b>1,342.6</b>	958.6
Less: current portion of debt				<b>(795.0)</b>	(309.9)
<b>Non-current debt</b>				<b>\$ 547.6</b>	\$ 648.7

#### (i) Debentures

The Company maintains debentures, which are direct, senior, unsecured obligations of the Company and rank equally with all other senior unsecured and unsubordinated indebtedness. The debentures have received a rating of A (high) with Stable trend from DBRS Limited ("DBRS"). On December 11, 2017, the Company completed a private placement offering of \$300.0 aggregate principal amount of senior unsecured debentures ("Series D Debentures") to accredited investors. The Company incurred financing costs of \$1.7 for the initial issuance of the Series D Debentures, and these costs are initially recognized in the carrying value of the Debentures in the Debt caption of the consolidated balance sheet.

The Company has the right, at its option, to redeem, in whole or in part, each of the Series A, Series B and Series D Debentures at any time prior to their respective maturities. The redemption price is equal to the greater of the applicable Canada Yield Price (as defined in the relevant Indenture) and 100% of the principal amount of the debentures being redeemed, together with accrued and unpaid interest to the date fixed for redemption. If redeemed on or after the date that is three months prior to the maturity date for the Series B Debentures or two months prior to the maturity date for the Series D Debentures, the redemption price is equal to 100% of the aggregate principal amount outstanding on the series being redeemed, together with accrued and unpaid interest to the date fixed for redemption.

The debentures are carried at amortized cost and are measured using the effective interest rate method.

For the year ended December 31, 2017, the Company recognized interest expense on its Series A, Series B and Series D debentures of \$13.3, \$11.3 and \$0.5, respectively (2016 – \$13.3, \$11.3 and nil, respectively).

#### (ii) Commercial paper

The Company has a commercial paper program to offer potential investors up to \$500 (or the equivalent US\$) of Commercial Paper (\$400 or the equivalent of US\$, prior to May 4, 2016) to be issued in various maturities of no more than one year. The Commercial Paper bears interest rates based on the prevailing market conditions at the time of issuance.



The Commercial Paper issued are unsecured obligations of the TMX Group Limited and rank equally with all other senior unsecured obligations of the Company. The Commercial Paper has been assigned a rating of R-1 (low) with Stable trend by DBRS.

The Commercial Paper is carried at amortized cost and measured using the effective interest rate method.

During the year ended December 31, 2017, the Company issued and repaid Commercial Paper with a cumulative amount of \$2,681.3 and \$2,594.8, respectively (2016 – \$1,393.9 and \$1,158.7, respectively).

As at December 31, 2017, the carrying amount of Commercial Paper issued that remains outstanding is \$395.3 of which \$18.8 represents the Canadian dollar equivalent amount of US dollar Commercial Paper (2016 – \$309.9 and \$20.1, respectively).

**(iii) TMX Group Limited credit facility**

The Company has entered into a credit agreement (the “TMX Group Limited credit facility”) with a syndicate of lenders to provide 100% backstop to the commercial paper program as well as for general corporate purposes. The credit agreement is to mitigate the Company’s exposure to specific liquidity risk should it be unable to borrow under a new Commercial Paper issuance in order to pay for Commercial Paper that is coming due because of a lack of liquidity or demand for the Company’s Commercial Paper in the market.

On December 14, 2017, the Company modified the terms of the TMX Group Limited credit facility to extend the term from May 2, 2019 to May 2, 2020. In addition to extending the maturity date, certain terms of the credit agreement were also amended including less restrictive financial covenants (note 13). The Company incurred financing costs of \$0.3 for modifying the terms of the credit facility and have included these costs as an expense in the consolidated income statement.

The amount available to be drawn under the TMX Group Limited credit facility is limited to \$500 less the aggregate amount of: (i) Commercial Paper outstanding; and (ii) inter-company notes payable to CDS Clearing and CDCC outstanding, at any point in time (December 31, 2017 – \$395.3 and \$10.0, respectively).

MX has an outstanding letter of guarantee for \$0.6 issued against the TMX Group Limited credit facility. This letter of guarantee has been issued as a guarantee to the trustee under the MX supplementary pension plan in respect of accrued future employee benefits (note 25).

**(iv) Interest rate swaps**

The interest rate swaps in place as of December 31 are as follows:

Swap	Maturity date	Interest rate the Company will receive	Interest rate the Company will pay	Notional value		Fair value asset (liability)	
				2017	2016	2017	2016
Series 5	May 2, 2019	1 month B.A.	1.083% \$	100.0 \$	100.0 \$	1.1 \$	0.1

During the year ended December 31, 2017, the Company recognized \$0.1 within net finance costs in the consolidated income statement, representing the net amount paid on the interest rate swaps (2016 – paid \$1.1).

The Company has designated certain interest rate swaps as cash flow hedges. The Company’s objective is to eliminate the variability of cash flows from interest rate payments payable by the Company on its Commercial Paper through the use of interest rate swaps over the term of the debt. Fair value is obtained from a pricing service based on a discounted cash flow model, which includes a credit spread.



**(B) OTHER CREDIT AND LIQUIDITY FACILITIES**

The Company has the following other credit and liquidity facilities drawn and outstanding at December 31:

	Interest rate <sup>†</sup>	Maturity date(s)	Authorized	2017 Carrying amount	2016 Carrying amount
AgriClear operating line of credit	—	n/a	3.0	\$ —	\$ —
AgriClear operating line of credit	—	n/a	US\$3.0	—	—
AgriClear letter of credit	—	n/a	US\$10.5	—	—
CDS Limited operating demand loan	—	n/a	6.0	—	—
CDS Clearing operating demand loan	—	n/a	10.0	—	2.1
CDS Clearing overdraft facility	—	n/a	5.0	—	—
CDS Clearing overnight loan facility	—	n/a	US\$5.5	—	—
<b>Credit facilities</b>				<b>—</b>	<b>2.1</b>
CDS Clearing secured standby liquidity facility	—	February 28, 2018	US\$400.0	—	—
CDCC syndicated revolving standby liquidity facility	Prime less 1.75%	March 2, 2018	300.0	—	2.5
CDCC daylight liquidity facilities	—	n/a	600.0	—	—
CDCC syndicated REPO facility	—	March 2, 2018	13,788.0	—	—
Shorcan overdraft facility	—	n/a	50.0	—	—
<b>Liquidity facilities</b>				<b>—</b>	<b>2.5</b>
<b>Total credit and liquidity facilities</b>				<b>\$ —</b>	<b>\$ 4.6</b>

<sup>†</sup>The interest rate charged on borrowings under the credit and liquidity facilities vary as the actual rate will be based on the prevailing market rates at the time of draw.

**(i) AgriClear facilities**

AgriClear Limited Partnership ("AgriClear"), an online platform, as well as a payment and settlement system for physical agricultural product transactions in Canada and the United States. AgriClear maintains two uncommitted and unsecured operating credit facilities of \$3.0 and US\$3.0 to support processing and settlement activities of buyers and sellers and short-term operating requirements. The borrowing rates for these facilities, if drawn, are the Canadian prime or the US prime rate, depending on the currency drawn.

In addition, AgriClear maintains a letter of credit demand facility of US\$10.5 with a major Canadian chartered bank. TMX Group Limited has guaranteed the obligations under the letter of credit demand facility. As at December 31, 2017, letters of credit issued and outstanding under this facility were \$0.1 and US\$9.2.

**(ii) CDS facilities**

CDS maintains unsecured operating demand loans totaling \$6.0 to support short-term operating requirements. To support processing and settlement activities of Participants, an unsecured overdraft facility and demand loan of \$15.0 and an overnight facility of US\$5.5 are available. The borrowing rates for these facilities, if drawn, are the Canadian prime or the US base rate, depending on the currency drawn.

CDS Clearing has a secured standby liquidity facility of US\$400.0, or Canadian dollar equivalent that can be drawn in either US or Canadian currency. This arrangement is available to support processing and settlement activities in the event of a participant default. Borrowings under the secured facility are obtained by pledging or providing collateral pledged by Participants primarily in the form of debt instruments issued or guaranteed by federal, provincial and/or municipal governments in Canada, or US treasury instruments. Depending upon the currency drawn, the borrowing rate for the secured standby credit arrangement is the US base rate or the Canadian prime rate. During the year, the Company modified the terms of the CDS standby liquid facility to extend the term from December 6, 2017 to February 28, 2018.

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.

As at December 31, 2017, CDS Clearing had drawn \$nil to facilitate an entitlement payment to a Participant (2016 – \$2.1).

**(iii) CDCC facilities**

CDCC maintains daylight liquidity facilities for a total of \$600.0 to provide liquidity on the basis of collateral in the form of securities that have been received by, or pledged to, CDCC. The daylight liquidity facilities must be cleared to zero at the end of each day.

CDCC maintains a \$13,788.0 REPO uncommitted facility 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 by, or pledged to, CDCC. During the year ended December 31, 2017, CDCC increased the size of its repurchase facility from \$13,638.0 to \$13,788.0 as a result of Clearing Members' activities.

Also on February 6, 2017, the Company increased the size of its repurchase facility from \$13,638.0 to \$13,788.0 as a result of Clearing Members' activities.

CDCC also maintains a \$300.0 syndicated revolving standby liquidity facility 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. As at December 31, 2017, CDCC did not have any failed REPO settlements (2016 – \$2.5). The amount was fully offset by liquid securities included in cash and cash equivalents and was fully repaid subsequent to the reporting date.

On March 3, 2017, the Company extended these facilities from March 3, 2017 to March 2, 2018.

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.

**(v) Shorcan facility**

Shorcan maintains an overdraft facility with a major chartered bank to provide end of day liquidity to cover any shortfalls due to timing of payments and receipts associated with the brokerage of trades. Use of this facility is secured by collateral in the form of securities.

**(vi) TMX Group Limited Support Agreement**

In 2016, in compliance with the Principles for Financial Market Infrastructures and additional Canadian regulatory and oversight guidance, CDS Clearing and CDCC each adopted a recovery plan, to be applied in the event that the entity is unable to provide defined critical operations and services as a going concern. These recovery plans were filed with their respective Canadian regulators. On January 1, 2017, in connection with the recovery plans, and if certain funding conditions are met, TMX Group Limited agreed to provide certain limited financial support to CDS Clearing and CDCC, if necessary, in the context of a recovery.

**(C) RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES**

The table below details changes in the Company's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Company's consolidated statement of cash flows from financing activities.

	Balance at January 1, 2017	Financing cash flows	Foreign Exchange (non-cash)	Balance at December 31, 2017
Debentures	\$ 648.7	\$ 298.6	\$ —	\$ 947.3
Commercial Paper	309.9	86.4	(1.0)	395.3
CDS Clearing operating demand loan	2.1	(2.1)	—	—
CDCC syndicated revolving standby liquid facility	2.5	(2.5)	—	—
Interest rate swap and forward exchange contracts used for hedging (note 23)	(0.1)	1.2	—	1.1
Finance lease liabilities (note 22)	0.4	(0.3)	—	0.1
<b>Total</b>	<b>963.5</b>	<b>381.4</b>	<b>(1.0)</b>	<b>1,343.9</b>

## NOTE 13 – CAPITAL MAINTENANCE

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The Company's primary objectives in managing capital, which it defines as including its cash and cash equivalents, marketable securities, share capital, debentures, Commercial Paper, and various credit facilities, include:

- Maintaining sufficient capital for operations to ensure market confidence and to meet regulatory requirements and various facility requirements. Currently, the Company targets to retain a minimum of \$170 in cash, cash equivalents and marketable securities. This amount is subject to change;
- Maintaining a credit rating in a range consistent with the Company's current A (high) and R1-low credit ratings from DBRS;
- Using excess cash to invest in and continue to grow the business;
- Returning capital to shareholders through methods such as dividends paid to shareholders and purchasing shares for cancellation pursuant to normal course issuer bids; and
- Reducing the debt levels to be below the total leverage ratios as discussed in (a) below, which decrease over time.

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

- a. In respect of the TMX Group Limited credit facility (note 12) that require the Company to maintain:
  - i. an interest coverage ratio of more than 4.0:1;
  - ii. a total leverage ratio of not more than:
    - 3.75:1 until December 31, 2018; and
    - 3.50:1 on January 1, 2019 and thereafter.
- b. In respect of TSX, as required by the OSC to maintain certain financial ratios on both a consolidated and non-consolidated basis, as defined in the OSC recognition order, as follows:
  - i. a current ratio of greater than or equal to 1.1:1;
  - ii. a debt to cash flow ratio of less than or equal to 4:1; and
  - iii. a financial leverage ratio of less than or equal to 4:1.
- c. In respect of Alpha Exchange Inc., as required by the OSC to maintain certain financial ratios on both a consolidated and non-consolidated basis as defined in the OSC recognition order, as follows:
  - i. a current ratio of greater than or equal to 1.1:1;
  - ii. a debt to cash flow ratio of less than or equal to 4.0:1; and
  - iii. a financial leverage ratio of less than or equal to 4.0:1.
- d. In respect of TSX Venture Exchange, as required by various provincial securities commissions, to maintain sufficient financial resources.
- e. In respect of MX, as required by the AMF, to maintain certain financial ratios as defined in the AMF recognition order, as follows:
  - i. a working capital ratio of more than 1.5:1;
  - ii. a cash flow to total debt outstanding ratio of more than 20%; and
  - iii. a financial leverage ratio of less than 4.0.
- f. In respect of CDCC, to maintain certain amounts, as follows:
  - i. maintain sufficient financial resources as required by the OSC and AMF;
  - ii. \$5.0 cash and cash equivalents or marketable securities as part of the Clearing Member default recovery process plus an additional \$5.0 in the event that the initial \$5.0 is fully utilized during a default;
  - iii. sufficient cash, cash equivalents and marketable securities to cover 12 months of operating expenses, excluding amortization and depreciation; and
  - iv. \$30.0 total shareholder's equity.
- g. In respect of CDS and CDS Clearing, as required by the OSC and the AMF to maintain certain financial ratios as defined in the OSC recognition order, as follows:
  - i. a debt to cash flow ratio of less than or equal to 4:1; and
  - ii. a financial leverage ratio of less than or equal to 4:1.

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

CDS is required to dedicate a portion of its own resources in the CNS default waterfall for the CNS function. As of January 1, 2016, the Company maintains \$1.0 in cash and cash equivalents or marketable securities to cover potential losses incurred as a result of a Participant default.

- h. In respect of Shorcan:
- i. by IIROC which requires Shorcan to maintain a minimum level of shareholders' equity of \$0.5;
  - ii. by the National Futures Association ("NFA") which requires Shorcan to maintain a minimum level of net capital; and
  - iii. by the OSC which requires Shorcan to maintain a minimum level of excess working capital.
- iv. In respect of TSX Trust, as required by the Office of the Superintendent of Financial Institutions, to maintain a certain minimum capital amount and ratio and a financial leverage ratio of less than or equal to 8%.

As at December 31, 2017, the Company complied with each of these externally imposed capital requirements, except those in respect of Shorcan's minimum level of net capital and excess working capital required by the NFA and the OSC, respectively. Subsequent to year end, the Company completed a capital contribution to Shorcan which put Shorcan onside its NFA and OSC regulatory requirements.

## NOTE 14 – FINANCIAL INSTRUMENTS

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Financial assets are recognized on the trade date at which the Company becomes a party to the contractual provisions of the instrument. Financial assets are generally derecognized when the contractual rights to the cash flows from the assets expire, or when the Company transfers the rights to receive the contractual cash flows on the financial assets to another party without retaining substantially all the risks and rewards of ownership of the financial assets.

Financial liabilities are initially recognized on the trade date at which the Company becomes a party to the contractual provisions of the instrument. The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled or expired. Financial liabilities are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition these financial liabilities are measured at amortized cost using the effective interest method. Financial assets and liabilities are offset and the net amount presented in the consolidated balance sheet only when the Company has a current legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

Derivatives are recognized initially at fair value. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

- Hedge accounting – Where hedge accounting can be applied, a hedge relationship is designated and documented at its inception detailing the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship. The Company makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, whether the hedging instruments are expected to be “highly effective” in offsetting changes in the fair value or cash flows of the hedged items over the life of the hedge. Hedge accounting is discontinued prospectively when the hedging instrument is no longer effective as a hedge, the hedging instrument is terminated or sold, or upon the sale or early termination of the hedged item. The cumulative gain or loss previously recognized in other comprehensive income is transferred to the consolidated income statement in the same period as the hedged item affects net income.
- Cash flow hedges – For cash flow hedges, the effective portion of the changes in the fair value of the hedging derivative, net of taxes, is recognized in other comprehensive income while any ineffective portion is recognized immediately in the consolidated income statement within net finance costs. Interest arising on the derivative is transferred from accumulated other comprehensive income within equity to net settlement on interest rate swaps within finance costs in the consolidated income statement as it is incurred.
- Other derivatives – The Company holds total return swaps which, while providing a partial economic hedge against its share price exposure on its cash-settled share-based compensation plans (note 23), are not designated as hedges for accounting purposes. As such, these derivatives are recognized at fair value both initially and subsequently, with changes in the fair value recognized in the consolidated income statement.

### (A) FINANCIAL INSTRUMENTS – CARRYING AMOUNTS AND FAIR VALUES

The Company classifies its non-derivative financial assets in the following categories, depending on the purpose for which they were acquired:

- Financial assets at fair value through profit or loss are classified as held for trading or assets designated as fair value through profit or loss by management when the Company manages the asset, and makes purchase and sale decisions, based on its fair value in accordance with the Company's documented risk management or investment strategy. Financial assets at fair value through profit or loss are measured at fair value, with changes recognized in the consolidated income statement. Transaction costs thereon are expensed as incurred.

- Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognized initially at fair value plus any incremental directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method, less any impairment losses. Short-term receivables with no stated interest rate are measured at the original transaction amounts where the effect of discounting is immaterial.
- Available for sale financial assets are non-derivative financial assets that are designated as available for sale or that are not classified in any of the previous categories. These assets are measured at fair value, both initially and subsequently, with changes in fair value, except for impairment losses and certain foreign exchange gains and losses, recognized in other comprehensive income until the asset is sold. Impairment losses are recognized in the consolidated income statement as incurred, as are foreign exchange gains and losses arising on monetary items. Foreign exchange gains and losses arising on non-monetary items, such as an investment in an equity instrument, are recognized in other comprehensive income. When an investment is derecognized, the cumulative gain or loss in accumulated other comprehensive income is reclassified to the consolidated income statement.

The classification of the Company's financial instruments, along with their carrying amounts and fair values are as follows:

	December 31, 2017		December 31, 2016	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Assets at fair value through profit or loss</b>				
<b>– Designated</b>				
Marketable securities	\$ 50.1	\$ 50.1	\$ 61.8	\$ 61.8
	50.1	50.1	61.8	61.8
<b>– Classified</b>				
Fair value of open energy contracts	—	—	150.2	150.2
Total return swaps	—	—	3.3	3.3
Interest rate swaps	1.1	1.1	0.1	0.1
	1.1	1.1	153.6	153.6
<b>Available for sale financial assets</b>				
Investment in privately-owned company	0.8	0.8	0.8	0.8
	0.8	0.8	0.8	0.8
<b>Loans and receivables</b>				
Cash and cash equivalents	175.0	175.0	240.6	240.6
Restricted cash and cash equivalents	116.3	116.3	66.0	66.0
Trade and other receivables	102.3	102.3	84.9	84.9
Energy contracts receivable	—	—	781.3	781.3
Clearing Members cash collateral	877.3	877.3	842.8	842.8
Balances with Clearing Members	18,377.0	18,377.0	14,741.3	14,741.3
Balances with Participants	691.7	691.7	731.4	731.4
	20,339.6	20,339.6	17,488.3	17,488.3
<b>Liabilities at fair value through profit or loss</b>				
<b>– Classified</b>				
Fair value of open energy contracts	—	—	(150.2)	(150.2)
Total return swaps	(0.1)	(0.1)	—	—
	(0.1)	(0.1)	(150.2)	(150.2)
<b>Other financial liabilities</b>				
Other trade and other payables	(57.4)	(57.4)	(37.1)	(37.1)
Accrued interest payable	(6.5)	(6.5)	(6.0)	(6.0)
Participants' tax withholdings	(116.3)	(116.3)	(66.0)	(66.0)
Energy contracts payable	—	—	(781.3)	(781.3)
Clearing Members cash collateral	(877.3)	(877.3)	(842.8)	(842.8)
Balances with Clearing Members	(18,377.0)	(18,377.0)	(14,741.3)	(14,741.3)
Balances with Participants	(691.7)	(691.7)	(731.4)	(731.4)
Obligations under finance leases	(0.1)	(0.1)	(0.4)	(0.4)
Credit and liquidity facilities drawn	—	—	(4.6)	(4.6)
Commercial Paper	(395.3)	(395.3)	(309.9)	(309.9)
Debentures	(947.3)	(972.1)	(648.7)	(684.7)
	\$ (21,468.9)	\$ (21,493.7)	\$ (18,169.5)	\$ (18,205.5)

The carrying amount of the Company's financial instruments approximate their fair values at each reporting date, with the exception of the debentures. The fair values of the debentures were obtained using Level 2 observable market prices as inputs.

**(B) FAIR VALUE MEASUREMENT**

The categories within the fair value hierarchy of the Company's financial instruments carried at fair value are as follows:

As at Asset/(Liability)	Fair value measurements using:			December 31, 2017
	Level 1	Level 2	Level 3	
Marketable securities	\$ 50.1	\$ —	\$ —	\$ 50.1
Total return swaps	—	(0.1)	—	(0.1)
Interest rate swaps	—	1.1	—	1.1
Investment in privately-owned company	—	—	0.8	0.8

As at Asset/(Liability)	Fair value measurements using:			December 31, 2016
	Level 1	Level 2	Level 3	
Marketable securities	\$ 61.8	\$ —	\$ —	\$ 61.8
Fair value of open energy contracts	—	150.2	—	150.2
Total return swaps	—	3.3	—	3.3
Interest rate swaps	—	0.1	—	0.1
Investment in privately-owned company	—	—	0.8	0.8
Fair value of open energy contracts	—	(150.2)	—	(150.2)

There were no transfers during the periods between any of the levels.

**NOTE 15 – CASH AND CASH EQUIVALENTS, RESTRICTED CASH AND CASH AND CASH EQUIVALENTS AND MARKETABLE SECURITIES**

**(A) CASH AND CASH EQUIVALENTS AND RESTRICTED CASH AND CASH AND CASH EQUIVALENTS**

Cash and cash equivalents, and restricted cash and cash equivalents are comprised of:

As at	December 31, 2017		December 31, 2016	
Cash	\$	68.7	\$	64.0
Term and other deposits		47.6		108.8
Treasury bills		52.9		52.7
Overnight money market		1.8		11.9
Regulatory surplus		4.0		3.2
<b>Cash and cash equivalents</b>	<b>\$</b>	<b>175.0</b>	<b>\$</b>	<b>240.6</b>
Restricted cash and cash equivalents – CDS Clearing	\$	116.3	\$	66.0
<b>Restricted cash and cash equivalents</b>	<b>\$</b>	<b>116.3</b>	<b>\$</b>	<b>66.0</b>

Cash and cash equivalents consist of cash and highly liquid investments having an original maturity of three months or less and also include restricted cash. MX operates a separate regulatory division, responsible for the approval of Participants and market regulation, which operates on a cost recovery basis. Restricted cash includes the surplus of this regulatory division with an equivalent and off-setting amount included in trade and other payables.

Restricted cash and cash equivalents contains tax withheld by CDS Clearing on entitlement payments made by CDS Clearing on behalf of CDS Clearing Participants. The restricted cash and cash equivalents related to this withheld tax is ultimately under the control of CDS Clearing; however, the amount is payable to various taxation authorities within a relatively short period of time and so is restricted from use in normal operations. An equivalent and off-setting amount is included in the consolidated balance sheet as a current liability under the caption Participants' tax withholdings.

**(B) MARKETABLE SECURITIES**

Marketable securities are comprised of:

As at	December 31, 2017		December 31, 2016	
Treasury bills	\$	50.1	\$	61.8
<b>Marketable securities</b>	<b>\$</b>	<b>50.1</b>	<b>\$</b>	<b>61.8</b>

The Company has designated its marketable securities as fair value through profit and loss, with changes in fair value being recorded within finance income in the consolidated income statement in the period in which they occur. Fair values have been determined based on quoted market prices or are based on observable market information.

**NOTE 16 – TRADE AND OTHER RECEIVABLES**

Trade and other receivables are comprised of:

As at	December 31, 2017		December 31, 2016	
Trade receivables, gross	\$	89.7	\$	68.6
Less: Allowance for doubtful accounts		(2.7)		(2.8)
Trade receivables, net		87.0		65.8
Other receivables		15.3		19.1
<b>Trade and other receivables</b>	<b>\$</b>	<b>102.3</b>	<b>\$</b>	<b>84.9</b>

Trade and other receivables are regularly reviewed for objective evidence of impairment.

Trade receivables generally have terms of 30 days. Trade receivables that are more than three months past due are considered to be impaired, and an allowance for doubtful accounts, which varies depending on the age of the receivable, is recorded within selling, general and administration costs in the consolidated income statement. Other specific trade receivables are also provided against as considered necessary.

The aging of the trade receivables was as follows:

As at	December 31, 2017				December 31, 2016	
	Gross		Allowance		Gross	Allowance
Not past due	\$	62.0	\$	—	\$	46.7
Past due 1-90 days		22.1		—		17.5
More than 90 days past due		5.6		2.7		4.4
<b>Trade receivables</b>	<b>\$</b>	<b>89.7</b>	<b>\$</b>	<b>2.7</b>	<b>\$</b>	<b>68.6</b>

The movement in the Company's allowance for doubtful accounts is as follows:

	December 31, 2017		December 31, 2016	
Balance at January 1	\$	2.8	\$	2.9
Allowance recognized in the year, net of allowance released		1.5		1.4
Receivables written off as uncollectible		(1.6)		(1.5)
<b>Balance at December 31</b>	<b>\$</b>	<b>2.7</b>	<b>\$</b>	<b>2.8</b>

No allowance for impairment is considered necessary for other receivables.



## NOTE 17 – GOODWILL AND INTANGIBLE ASSETS

### (A) GOODWILL AND INDEFINITE LIFE INTANGIBLE ASSETS

Goodwill is recognized at cost on acquisition less any subsequent impairment in value. Intangible assets such as trade names, derivative products, regulatory designations and structured products are considered to have indefinite lives as management believes that there is no foreseeable limit to the period over which these assets are expected to generate net cash flows.

A summary of the Company's goodwill and indefinite life intangible assets is as follows:

	Goodwill	Trade names	Derivative products	Regulatory designations	Structured products	Total
Balance at January 1, 2016	\$ 1,084.8	\$ 252.1	\$ 632.0	\$ 1,408.6	\$ 107.0	\$ 3,484.5
Impairment	(8.9)	—	—	—	—	(8.9)
Loss of control of BOX Holdings	—	(1.4)	—	(0.3)	—	(1.7)
Effect of movements in exchange rates	(1.4)	(0.1)	—	—	—	(1.5)
Balance at December 31, 2016	1,074.5	250.6	632.0	1,408.3	107.0	3,472.4
<b>Acquisition of Trayport (note 3)</b>	<b>621.7</b>	<b>39.2</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>660.9</b>
<b>Sale of NGX and Shorcan Energy (note 4)</b>	<b>(10.4)</b>	<b>(4.9)</b>	<b>—</b>	<b>(1.0)</b>	<b>(107.0)</b>	<b>(123.3)</b>
<b>Sale of TMX Atrium (note 5)</b>	<b>(18.6)</b>	<b>(1.6)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(20.2)</b>
Impairment	(6.5)	—	—	—	—	(6.5)
Effect of movements in exchange rates	0.9	—	—	—	—	0.9
<b>Balance at December 31, 2017</b>	<b>\$ 1,661.6</b>	<b>\$ 283.3</b>	<b>\$ 632.0</b>	<b>\$ 1,407.3</b>	<b>\$ —</b>	<b>\$ 3,984.2</b>

The Company measures goodwill arising on a business combination as the fair value of the consideration transferred less the fair value of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. The Company elects on a transaction by transaction basis whether to measure non-controlling interests at fair value or at their proportionate share of the recognized amount of the identifiable net assets acquired, at the acquisition date. Transaction costs, other than those associated with the issue of debt or equity securities as consideration, that the Company incurs in connection with a business combination are expensed as incurred.

### (B) DEFINITE LIFE INTANGIBLE ASSETS

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

Costs incurred in research activities, undertaken with the prospect of gaining new technical knowledge, are recognized in the consolidated income statement as incurred. Costs incurred in development activities are capitalized when all of the following criteria are met:

- It is technically feasible to complete the work such that the asset will be available for use or sale,
- The Company intends to complete the asset for use or sale,
- The Company will be able to use the asset once completed,
- The asset will be useful and is expected to generate future economic benefits for the Company,
- The Company has adequate resources available to complete the development of and to use the asset, and
- The Company is able to reliably measure the costs attributable to the asset during development.

Definite life intangible assets are amortized from the date of acquisition or, for internally developed intangible assets, from the time the asset is available for use. Amortization is recognized in the consolidated income statement on a straight-line basis over the estimated useful life of the asset. Residual values and the useful lives of the assets are reviewed at each year end, and revised as necessary.

Amortization is provided over the following useful lives of definite life intangible assets:

Asset	Basis	Rate
Customer relationships	Straight-line	17 – 34 years
Technology	Straight-line	1 – 10 years

A summary of the Company's definite life intangible assets is as follows:

	Technology	Customer relationships	Open interest	Total
<b>Cost:</b>				
Balance at January 1, 2016	\$ 108.7	\$ 1,021.4	\$ 2.0	\$ 1,132.1
Additions through general operations	9.2	—	—	9.2
Loss of control of BOX Holdings	(12.4)	(50.8)	—	(63.2)
Disposals	(2.2)	—	—	(2.2)
Adjustments	(5.0)	—	—	(5.0)
Effect of movements in exchange rates	(2.4)	(3.2)	—	(5.6)
Balance at December 31, 2016	95.9	967.4	2.0	1,065.3
<b>Additions through general operations</b>	<b>17.4</b>	<b>—</b>	<b>—</b>	<b>17.4</b>
<b>Acquisition of Trayport (note 3)</b>	<b>36.6</b>	<b>307.6</b>	<b>—</b>	<b>344.2</b>
<b>Sale of NGX and Shorcan Energy (note 4)</b>	<b>(14.5)</b>	<b>(83.5)</b>	<b>—</b>	<b>(98.0)</b>
<b>Adjustments</b>	<b>(1.1)</b>	<b>—</b>	<b>—</b>	<b>(1.1)</b>
<b>Impairment/write-offs</b>	<b>(3.2)</b>	<b>—</b>	<b>—</b>	<b>(3.2)</b>
<b>Effect of movements in exchange rates</b>	<b>(0.1)</b>	<b>—</b>	<b>—</b>	<b>(0.1)</b>
<b>Balance at December 31, 2017</b>	<b>\$ 131.0</b>	<b>\$ 1,191.5</b>	<b>\$ 2.0</b>	<b>\$ 1,324.5</b>
<b>Accumulated amortization:</b>				
Balance at January 1, 2016	\$ 68.1	\$ 146.8	\$ 2.0	\$ 216.9
Charge for the year	13.0	34.8	—	47.8
Loss of control of BOX Holdings	(12.4)	(24.7)	—	(37.1)
Disposals	(0.4)	—	—	(0.4)
Adjustments	(5.0)	—	—	(5.0)
Effect of movements in exchange rates	(2.3)	(2.0)	—	(4.3)
Balance at December 31, 2016	61.0	154.9	2.0	217.9
<b>Charge for the year</b>	<b>12.7</b>	<b>34.5</b>	<b>—</b>	<b>47.2</b>
<b>Acquisition of Trayport (note 3)</b>	<b>0.2</b>	<b>0.5</b>	<b>—</b>	<b>0.7</b>
<b>Sale of NGX and Shorcan Energy (note 4)</b>	<b>(7.4)</b>	<b>(15.5)</b>	<b>—</b>	<b>(22.9)</b>
<b>Impairment/write-offs</b>	<b>(1.4)</b>	<b>—</b>	<b>—</b>	<b>(1.4)</b>
<b>Effect of movements in exchange rates</b>	<b>(0.4)</b>	<b>—</b>	<b>—</b>	<b>(0.4)</b>
<b>Balance at December 31, 2017</b>	<b>\$ 64.7</b>	<b>\$ 174.4</b>	<b>\$ 2.0</b>	<b>\$ 241.1</b>
<b>Net book values:</b>				
At December 31, 2016	\$ 34.9	\$ 812.5	\$ —	\$ 847.4
<b>At December 31, 2017</b>	<b>\$ 66.3</b>	<b>\$ 1,017.1</b>	<b>\$ —</b>	<b>\$ 1,083.4</b>

### (C) IMPAIRMENT OF ASSETS

The carrying amounts of the Company's non-financial assets, other than deferred income tax assets and employee future benefit assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives, or that are not yet available for use, are tested for impairment at least annually even if there is no indication of impairment, and the recoverable amount is estimated each year at the same time.

The recoverable amount of an asset is the greater of its value-in-use and its fair value less costs of disposal. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit", or "CGU"). For the purposes of goodwill impairment testing, goodwill acquired in a business combination is allocated to the CGU, or the group of CGUs, that is expected to benefit from the synergies of the combination and reflects the lowest level at which that goodwill is monitored for internal reporting purposes.

An impairment loss is recognized if the carrying amount of an asset, or its CGU, exceeds its estimated recoverable amount, which is the higher of the asset's fair value less costs of disposal and its value-in-use. Impairment losses recognized in respect of 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 are recognized in the consolidated income statement.

An impairment loss in respect of goodwill cannot be reversed. In respect of other non-financial assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

For the year ended December 31, 2017, the Company determined that certain CGUs had recoverable amounts that were lower than their respective carrying amounts. As a result, for the year ended December 31, 2017, the Company recognized an impairment charge of \$6.5 related to goodwill in the consolidated income statement. For the year ended December 31, 2016, the Company determined that certain CGUs had recoverable amounts that were lower than their respective carrying amounts. As a result, for the year ended December 31, 2016, the Company recognized an impairment charge of \$8.9 related to goodwill in the consolidated income statement.

At December 31, the carrying values of goodwill and indefinite life intangible assets allocated to each CGU, after the impairment charges described above, are as follows:

As at	December 31, 2017		December 31, 2016	
	Goodwill	Indefinite life intangibles	Goodwill	Indefinite life intangibles
Listings	\$ 13.3	\$ 1,290.1	\$ 13.3	\$ 1,294.4
Datalinx/Analytics	707.7	74.3	708.4	89.2
Trayport	622.4	39.2	—	—
Equities Trading	5.1	229.6	5.1	210.9
MX/CDCC	159.4	663.9	159.4	663.3
CDS	89.5	22.0	89.5	22.0
NGX	—	—	3.2	112.0
Other	64.2	3.5	95.6	6.1
	\$ 1,661.6	\$ 2,322.6	\$ 1,074.5	\$ 2,397.9

The recoverable amounts of the above CGUs were determined based on value-in-use calculations, using management's discounted cash flow projections over periods of 5 years along with a terminal value. The terminal value is the value attributed to the CGUs' operations beyond the projected time period. The terminal value for the CGUs is determined using an estimated long-term growth rate of 2.0% for all significant CGUs, except for MX/CDCC which is 4.5%, which is based on the Company's estimates of expected future operating results, future business plans, economic conditions and a general outlook for the industry in which the CGU operates. In calculating the recoverable amount of these CGUs, a pre-tax discount rate is used. The pre-tax discount rate applied was 11.6% to 14.1%, which was set considering the weighted average cost of capital of the Company and certain risk premiums, based on management's past experience.

These assumptions are subjective judgements based on the Company's experience, knowledge of operations and knowledge of the economic environment in which it operates. If future cash flow projections, long-term growth rates or pre-tax discount rates are different to those used, it is possible that the outcome of future impairment tests could result in a different outcome with a CGU's goodwill and/or intangible assets being impaired.

At December 31, 2017, Management has determined that the Datalinx/Analytics CGU may be subject to a reasonably possible change to one or more of the key assumptions used to determine the recoverable amount, which could cause this CGU to become impaired. An increase of 0.8% in the discount rate, a 1.2% decrease in the terminal growth rate, or a 5.9% decrease in annual cash flows could cause the recoverable amount to equal the carrying value.

## NOTE 18 – INVESTMENTS IN EQUITY ACCOUNTED INVESTEEES

Investments in equity accounted investees are comprised of:

As at	December 31, 2017		December 31, 2016	
Investment in FTSE TMX Global Debt Capital Markets Limited	\$	50.2	\$	48.1
Investment in BOX Holdings		19.8		21.5
Other		16.3		15.6
<b>Investments in equity accounted investees</b>	<b>\$</b>	<b>86.3</b>	<b>\$</b>	<b>85.2</b>

For the year ended December 31, 2017, the Company recognized \$2.9 from its share of income from equity accounted investees (2016 – \$2.4).

### (A) FTSE TMX GLOBAL DEBT CAPITAL MARKETS LIMITED

At December 31, 2017, the Company has an indirect 24.25% equity interest in FTSE TMX Global Debt Capital Markets Limited ("FTSE"). The investment is accounted for in its functional currency of GBP and using the equity method.

Summary financial information for FTSE in GBP is as follows:

As at	December 31, 2017		December 31, 2016	
Current assets	£	45.5	£	25.1
Non-current assets		86.2		94.3
Current liabilities		(24.6)		(10.2)
Non-current liabilities		(12.3)		(11.8)
<b>Net assets (100%)</b>	<b>£</b>	<b>94.8</b>	<b>£</b>	<b>97.4</b>
<b>For the year ended</b>	<b>December 31, 2017</b>		<b>December 31, 2016</b>	
Revenue	£	22.6	£	20.1
Net income and comprehensive income (100%)		4.3		2.1
<b>Share of income and comprehensive income (24.25%)</b>	<b>£</b>	<b>1.0</b>	<b>£</b>	<b>0.5</b>

For the year ended December 31, 2017, the Company recognized \$2.7 from its share of income in the consolidated income statements and a loss of \$0.7 from translation of the foreign operation in the consolidated statements of comprehensive income (2016 – \$0.8 and \$0.4, respectively). Also for the year ended December 31, 2017, the Company earned \$2.3 from FTSE as part of its royalty program, which is included in the Global Solutions, Insights & Analytics segment (2016 – \$2.0).

### (B) BOX HOLDINGS GROUP LLC

At July 1, 2016, the Company recognized its retained interest of 41.33% in BOX Holdings at US\$15.6, using a discounted cash flow methodology based on management's best estimate of the forecasted cash flows for the business discounted at a pre-tax discount rate. The investment in BOX Holdings is accounted for in its functional currency of USD and using the equity method.

Summary financial information for BOX Holdings in USD is as follows:

As at	December 31, 2017		December 31, 2016	
Current assets	US\$	19.3	US\$	19.5
Non-current assets		5.6		6.1
Current liabilities		(1.8)		(1.8)
Non-current liabilities		(0.2)		(0.1)
<b>Net assets (100%)</b>	<b>US\$</b>	<b>22.9</b>	<b>US\$</b>	<b>23.7</b>
	<b>For the year ended December 31, 2017</b>		<b>For the six months ended December 31, 2016</b>	
Revenue	US\$	15.5	US\$	9.6
Net income and comprehensive income (100%)		0.5		1.0
<b>Share of income and comprehensive income (41.33%)</b>	<b>US\$</b>	<b>0.2</b>	<b>US\$</b>	<b>0.4</b>

For the year ended December 31, 2017, the Company recognized \$0.3 from its share of income in the consolidated income statements and a loss of \$1.4 from translation of the foreign operation in the consolidated statements of comprehensive income (for the six months ended December 31, 2016 – income of \$0.6 and gain of \$0.8, respectively).

## NOTE 19 – TRADE AND OTHER PAYABLES

Trade and other payables are comprised of:

As at	December 31, 2017	December 31, 2016
Trade payables and accrued expenses	\$ 30.2	\$ 28.1
Sales taxes payable	8.7	3.9
Employee and director costs payable	40.2	36.0
Accrued interest payable	6.5	6.0
Regulatory surplus	4.0	3.2
Other	0.7	0.3
<b>Trade and other payables</b>	<b>\$ 90.3</b>	<b>\$ 77.5</b>

The fair value of trade and other payables is approximately equal to their carrying amount given their short term until settlement.

Short-term payables with no stated interest rate are measured at the original transaction amounts where the effect of discounting is immaterial. Short-term employee benefit obligations, such as wages, salaries and annual vacation entitlements, are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognized for the Company's annual short-term incentive plan if a present legal or constructive obligation to pay an amount exists as a result of past service provided by the employee, and the obligation can be estimated reliably.

## NOTE 20 – DEFERRED REVENUE

Deferred revenue is comprised of:

As at	December 31, 2017	December 31, 2016
Listings	\$ 3.6	\$ 2.2
Technology solutions	4.0	2.1
Energy	—	8.0
Other	1.1	9.3
<b>Current deferred revenue</b>	<b>\$ 8.7</b>	<b>\$ 21.6</b>
Energy	\$ —	\$ 3.6
Other	0.2	—
<b>Non-current deferred revenue</b>	<b>\$ 0.2</b>	<b>\$ 3.6</b>

Deferred revenue mainly comprises of initial and additional listings for TSX Venture Exchange, which are paid in advance for the services being provided and which are deferred until the point at which the listing occurs and the service is completed.

Technology solutions deferred revenue includes annual information services subscription sales from Trayport and CDS and fees for network and infrastructure solutions and risk management software. At December 31, 2017, technology solutions deferred revenue no longer includes fees for network and infrastructure solutions and risk management software as a result of the sale of Razor Risk. Also, energy deferred revenue no longer includes revenue from NGX, which recognizes trading, clearing and related revenue over the trade, delivery and settlement months of each transaction.

## NOTE 21 – PROVISIONS AND CONTINGENCIES

### (A) PROVISIONS

A provision has been recognized if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as a finance cost.

A summary of the Company's provisions is as follows:

	Onerous leases	Decommissioning liabilities	Commodity tax	Strategic re-alignment	Total
Balance at January 1, 2016	\$ 1.1	\$ 8.1	\$ 1.6	\$ 0.1	\$ 10.9
Provisions recognized during the period	0.4	0.1	1.6	17.8	19.9
Unwinding of the discount	—	0.2	—	—	0.2
Provisions used during the period	(0.5)	(0.9)	—	(4.8)	(6.2)
Balance at December 31, 2016	\$ 1.0	\$ 7.5	\$ 3.2	\$ 13.1	\$ 24.8
Current	\$ 0.7	\$ —	\$ 3.0	\$ 13.1	\$ 16.8
Non-current	0.3	7.5	0.2	—	8.0
Balance at December 31, 2016	\$ 1.0	\$ 7.5	\$ 3.2	\$ 13.1	\$ 24.8
<b>Provisions recognized during the period</b>	<b>0.6</b>	<b>0.4</b>	<b>0.3</b>	<b>—</b>	<b>1.3</b>
<b>Provisions used during the period</b>	<b>(1.0)</b>	<b>(1.1)</b>	<b>(2.5)</b>	<b>(8.9)</b>	<b>(13.5)</b>
<b>Balance at December 31, 2017</b>	<b>\$ 0.6</b>	<b>\$ 6.8</b>	<b>\$ 1.0</b>	<b>\$ 4.2</b>	<b>\$ 12.6</b>
<b>Current</b>	<b>\$ 0.3</b>	<b>\$ 0.1</b>	<b>\$ 1.0</b>	<b>\$ 4.2</b>	<b>\$ 5.6</b>
<b>Non-current</b>	<b>0.3</b>	<b>6.7</b>	<b>—</b>	<b>—</b>	<b>7.0</b>
<b>Balance at December 31, 2017</b>	<b>\$ 0.6</b>	<b>\$ 6.8</b>	<b>\$ 1.0</b>	<b>\$ 4.2</b>	<b>\$ 12.6</b>

#### (i) Onerous leases

The Company measures a provision for an onerous contract at the present value of the lower of (i) the expected costs of or penalties for terminating the lease and (ii) the expected net costs of meeting the lease commitments, net of any sub-lease income. During the year ended December 31, 2017, the Company determined that it will stop using certain office space under a non-cancellable lease (note 22). The lease will expire in 2018. An obligation of \$0.6 for the discounted future payments, net of expected sub-lease income has been provided for.

#### (ii) Decommissioning liabilities

The Company recognizes a provision for site restoration in respect of certain lease arrangements when leased premises have been modified or altered.

#### (iii) Commodity tax

The Company recognizes a provision for its best estimates of the amounts that are required to be paid to taxation authorities for input tax credits claimed.

#### (iv) Strategic re-alignment including termination benefits

In September 2016, the Company provided an update on its strategic re-alignment process which began in 2015 with a number of organizational changes. With the announcement of this update, the Company committed to a plan to streamline the organization and accelerate its evolution as a client-driven solutions provider to capital markets in Canada and across the globe.

Following the announcement of the plan, the Company recognized a provision of \$17.8 in 2016 for expected strategic re-alignment costs, including consulting fees of \$1.1 and employee termination benefits of \$16.7. Estimated costs were based on the Company's customary terms or terms of the relevant employee contracts.

## (B) CONTINGENT LIABILITIES

From time to time in connection with its operations, the Company or its subsidiaries are named as a defendant in actions, including those for damages and costs sustained by plaintiffs, or as a respondent in proceedings challenging the Company's or its subsidiaries' regulatory or other actions, decisions or jurisdiction. The outcomes of such matters are subject to future resolution that includes uncertainties of litigation or other proceedings. Based on information currently known to the Company, management believes that any significant payment or other obligation in respect of any such action or proceeding is unlikely.

## NOTE 22 – COMMITMENTS AND LEASE OBLIGATIONS

The Company is committed under long-term leases and licenses as follows:

- The rental of office space, under various long-term operating leases with remaining terms of up to 16 years, including certain asset retirement obligations with regard to these leases;
- The rental of computer hardware and software for remaining terms of one to four years under operating leases; and
- The rental of computer hardware and software for remaining terms of one to three years under finance leases.

### (A) OPERATING LEASES

The Company classifies leases in which a significant portion of the risks and rewards of ownership are retained by the lessor as operating leases. Payments made under operating leases and any lease incentives received are recognized in the consolidated income statement on a straight-line basis over the term of the lease.

Non-cancellable operating lease rentals are payable as follows:

	December 31, 2017	December 31, 2016
Less than one year	\$ 22.8	\$ 18.7
Between one and five years	48.8	42.6
More than five years	90.4	93.9
	<b>\$ 162.0</b>	<b>\$ 155.2</b>

The Company is responsible for additional taxes, maintenance and other direct charges with respect to its leases. The additional amount will be approximately \$11.8 for 2018 (2017 – \$13.2).

The figures above do not include the Company's obligations to restore certain leased premises to their original condition (note 21).

The company has other commitments in the form of long term contracts related to technology in the amount of \$49.8 of which \$21.1 is payable in one year.

The Company has entered into sub-lease agreements with third parties for the rental of office space, and rentals receivable from these sub-leases are as follows:

	December 31, 2017	December 31, 2016
Less than one year	\$ 1.5	\$ 1.5
Between one and five years	3.6	0.6
	<b>\$ 5.1</b>	<b>\$ 2.1</b>

Payments of \$33.9 were charged to the consolidated income statement in relation to operating leases, net of sub-lease income (2016 – \$30.0).

### (B) FINANCE LEASES

The Company classifies leases for equipment where substantially all of the risks and rewards of ownership have transferred to the Company as finance leases. The leased assets are capitalized on inception of the lease at the lower of their fair value and the present value of the minimum lease payments and then amortized over their useful lives. Payments made under finance leases are apportioned between the finance expense and a reduction in the outstanding liability to achieve a constant periodic rate of interest on the remaining liability.



Finance lease liabilities that are payable in less than one year are included in other current liabilities and the remaining liabilities are included in other non-current liabilities on the consolidated balance sheet. Finance lease liabilities are payable as follows:

	December 31, 2017			December 31, 2016		
	Future minimum lease payments	Interest	Present value of minimum lease payments	Future minimum lease payments	Interest	Present value of minimum lease payments
Less than one year	\$ 0.1	\$ —	\$ 0.1	\$ 0.5	\$ 0.1	\$ 0.4

The fair value of the finance lease liabilities is approximately equal to their carrying amount.

### (C) CDS FEE COMMITMENTS AND REBATES

Under the CDS recognition orders granted by the OSC and the AMF, fees for services and products offered by CDS Clearing will be those fees in effect on November 1, 2011 (“2012 base fees”). CDS Clearing cannot adjust fees without the approval of the OSC, AMF and the British Columbia Securities Commission (“BCSC”). In addition, CDS Clearing may only seek approval for fee increases on clearing and other core CDS Clearing services (which services are outlined in the OSC and AMF recognition orders) where there has been a significant change from circumstances existing as at August 1, 2012, the effective date of the recognition orders.

Under the CDS recognition orders granted by the OSC and AMF, for the two month period starting November 1, 2012 and subsequent fiscal years starting January 1, 2013, CDS will share any annual revenue increases on clearing and other core CDS Clearing services on a 50:50 basis with Participants. Beginning January 1, 2015 and subsequent years, CDS also shares with Participants, on a 50:50 basis, any annual increases in revenue applicable to the NYL/DDL Liquidity Premium compared to the revenues for this service in earned in the twelve-month period ended December 31, 2015.

For the year ended December 31, 2017, the rebate payable amounted to \$3.9 (2016 – \$3.7).

In addition, the Company is mandated to rebate an additional amount to Participants in respect of exchange clearing services for trades conducted on an exchange or Alternative Trading System (“ATS”). This rebate gradually increased over the years to reach its maximum of \$4.0 annually in October 2016.

These rebates are accrued and recorded as a reduction against revenue in the year to which they relate.

## NOTE 23 – OTHER ASSETS AND OTHER LIABILITIES

### (A) OTHER ASSETS

Other current and non-current assets are comprised of:

As at	December 31, 2017		December 31, 2016	
Prepaid expenses	\$	13.6	\$	10.0
Total return swaps (note 24)		—		3.3
Other		—		1.1
Current income tax assets		4.5		1.8
<b>Other current assets</b>	<b>\$</b>	<b>18.1</b>	<b>\$</b>	<b>16.2</b>
Investment in equity accounted investees (note 18)	\$	86.3	\$	85.2
Accrued employee benefit assets (note 25)		7.6		9.4
Premises and equipment		38.0		31.4
Investment in privately-owned company		0.8		0.8
Fair value of interest rate swaps (note 12)		1.1		0.1
Other		0.6		1.4
<b>Other non-current assets</b>	<b>\$</b>	<b>134.4</b>	<b>\$</b>	<b>128.3</b>

The Company holds an investment in a privately-owned company, whose shares are not traded on an active market. The fair value of this investment was recorded at cost at acquisition. Management considers cost of the investment to approximate its fair value.



**(B) OTHER LIABILITIES**

Other current and non-current liabilities are comprised of:

As at	December 31, 2017		December 31, 2016	
Deferred revenue (note 20)	\$	8.7	\$	21.6
Provisions (note 21)		5.6		16.8
Obligations under finance leases (note 22)		0.1		0.4
Total return swaps (note 24)		0.1		—
Current income tax liabilities		46.6		17.2
<b>Other current liabilities</b>	<b>\$</b>	<b>61.1</b>	<b>\$</b>	<b>56.0</b>
Deferred revenue (note 20)	\$	0.2	\$	3.6
Provisions (note 21)		7.0		8.0
Long-term incentive plan and director compensation obligations (note 24)		30.0		27.5
Accrued employee benefits payable (note 25)		18.7		17.7
Other		5.4		1.2
<b>Other non-current liabilities</b>	<b>\$</b>	<b>61.3</b>	<b>\$</b>	<b>58.0</b>

**NOTE 24 – SHARE-BASED PAYMENTS**

Under the long-term incentive plan ("LTIP"), certain employees and officers of the Company will receive a mix of LTIP awards consisting of share options, time-based restricted share units ("RSUs"), and performance-based restricted share units (referred to as "PSUs"). For the year ended December 31, 2017, the Company recognized compensation and benefits expense under the following share-based payment arrangements:

- Share option plan;
- Restricted share unit, performance-based restricted share unit and deferred share unit plans; and
- Employee share purchase plan.

**(A) SHARE OPTION PLAN**

The share option plan has options that vest in quarters over 4 years and have a maximum term of 10 years. Under the share option plan, the fair value of share options granted was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions: a share price of \$72.21 dollars (2016 – \$40.39 dollars), and depending on the tranche, dividend yield of between 2.5% and 2.8% (2016 – 2.6% and 4.0%); expected life of between 2 and 5 years (2016 – 2 and 5 years); an expected volatility of between 16.0% and 18.5% (2016 – 19.7% and 27.6%); risk-free interest rate of between 1.1% and 1.4% (2016 – 0.7% and 1.1%); and expected forfeiture rates of between 9.4% and 22.1% (2016 – 9.4% and 22.0%). The assumptions are based on the Company's historical share price movements and historical dividend policy and the expected life is based on the Company's past experience. The resulting weighted average fair value calculated for share options granted in 2017 was \$7.68 dollars (2016 – \$5.40 dollars).

Options outstanding at December 31, 2017 will expire in 2018, 2019, 2020, 2021, 2025, 2026 and 2027.

Movements in the number of share options outstanding are as follows:

For the year ended	December 31, 2017		December 31, 2016	
	Number of share options	Weighted average exercise price (in dollars)	Number of share options	Weighted average exercise price (in dollars)
Outstanding, beginning of the period	1,734,569	\$ 46.82	1,975,787	\$ 49.83
Granted	590,578	72.21	641,398	40.39
Expired	(586)	28.67	—	—
Forfeited	(83,468)	50.76	(253,300)	45.45
Exercised	(362,167)	47.90	(629,316)	50.28
<b>Outstanding as at December 31</b>	<b>1,878,926</b>	<b>\$ 54.41</b>	<b>1,734,569</b>	<b>\$ 46.82</b>
<b>Vested and exercisable as at December 31</b>	<b>657,399</b>	<b>\$ 49.76</b>	<b>620,445</b>	<b>\$ 50.88</b>

The range of exercise prices and weighted average remaining contractual life of options outstanding are as follows:

As at	December 31, 2017		December 31, 2016	
	Number of share options	Weighted average remaining contractual life	Number of share options	Weighted average remaining contractual life
Exercise price range (in dollars)				
\$28.67 - \$29.99	—	—	4,549	0.1
\$40.00 - \$49.99	883,672	7.4	1,134,436	8.1
\$50.00 - \$59.99	418,745	4.0	591,778	4.6
\$60.00 - \$60.73	3,806	8.6	3,806	9.6
\$70.00 - \$72.23	572,703	9.1	—	—
	1,878,926	7.2	1,734,569	6.9

The Company accounts for its share option plan to eligible employees which calls for settlement by the issuance of equity instruments using the fair value based method. Under the fair value based method, compensation cost attributable to options to employees is measured at fair value at the grant date, using a recognized option pricing model, and amortized over the vesting period. The amount recognized as an expense is adjusted to reflect the actual number of options expected to vest. For the year ended December 31, 2017, the Company recognized compensation and benefits expense of \$3.3 in relation to its share option plan (2016 – \$2.4).

According to the terms of the Company's plan, under no circumstances may any one person's share options and all other share compensation arrangements exceed 5% of the outstanding common shares issued of the Company. At December 31, 2017, 3,117,745 common shares of the Company remain reserved for issuance upon exercise of share options granted under the plan, representing approximately 6% of the outstanding common shares of the Company.

**(B) RESTRICTED SHARE UNIT ("RSU"), PERFORMANCE-BASED RESTRICTED SHARE UNIT ("PSU") AND DEFERRED SHARE UNIT ("DSU") PLANS**

RSUs and PSUs vest over a maximum of 35 months and are payable provided the employee is still employed by the Company at the end of the second calendar year following the calendar year in which the RSUs and PSUs were granted. In the case of the PSUs, the amount of the award payable at the end of this vesting period will be determined by a factor of total shareholder return versus the total gross return of the S&P/TSX Composite Index over the period. Total shareholder return represents the appreciation in share price of the Company plus dividends paid on a common share of the Company, measured at the time the PSUs vest.

The Company has a plan that, among other things, gives officers who have not met their equity ownership requirements the opportunity to convert all or part of their short-term incentive award into deferred share units ("DSU"s). In addition, members of the Board of Directors who do not waive their compensation or direct that it be paid to their employer are granted DSUs annually and are also given the opportunity to convert some of their annual remuneration into DSUs. These DSUs vest immediately. The amount of the award payable is based on the number of units outstanding multiplied by the 30-day volume weighted average price of the Company's common shares at the date of the payout. The DSUs will only be paid out when the officer or the Board member retires or otherwise ceases to hold any position with the Company or such of its subsidiaries as are designated from time to time.

The Company records its obligation for the RSUs and PSUs, if any, over the service period in which the award is earned. The liability is measured at fair value on the date of grant and at each subsequent reporting date. As at December 31, 2017, the total accrual for the Company's RSUs, PSUs and DSUs was \$40.0, which includes \$10.0 in trade and other payables and \$30.0 in other non-current liabilities (2016 – RSUs and DSUs of \$34.0, \$6.5 and \$27.5, respectively).

The maximum amount to be paid is not known until the awards become payable and will be based on total shareholder return from the date of grant to the time of payout. The accrual is based on the 30-day volume weighted average price of the Company's common shares at the end of the reporting period.

Compensation cost attributable to these employee awards which call for settlement in cash is measured at fair value at each reporting date. Changes in fair value between the grant date and the measurement date are recognized in the consolidated income statement over the vesting period, with a corresponding change in either current or non-current liabilities, depending on the period in which the award is expected to be paid. For the year ended December 31, 2017, the Company recognized compensation and benefits expense and selling, general and administration expense of \$11.2 and \$2.7, respectively, in relation to its RSUs, PSUs and DSUs (2016 – \$16.1 and \$10.4, respectively).

The Company has entered into a series of total return swaps ("TRSs") which synthetically replicate the economics of the Company purchasing its shares as a partial economic hedge to the share appreciation rights of the non-performance element of RSUs and

DSUs. The Company has also entered into a series of TRSs as an economic hedge against the share price appreciation associated with the DSUs.

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

For the year ended December 31, 2017, unrealized losses and realized gains of \$2.1 and \$2.5, respectively have been reflected in the compensation and benefits expense in the consolidated financial statements (2016 – unrealized and realized gains of \$4.9 and \$4.9, respectively).

### (C) EMPLOYEE SHARE PURCHASE PLAN

The Company has an employee share purchase plan for eligible employees of the Company. Under the employee share purchase plan, contributions by the Company and by eligible employees will be used by the plan administrator, to make purchases of common shares of the Company on the open market. Each eligible employee may contribute up to 10% of the employee's salary to the employee share purchase plan. The Company will contribute to the plan administrator the funds required to purchase one common share of the Company for each two common shares purchased on behalf of the eligible employee, up to a maximum annual contribution of \$2,500 dollars per year.

The Company accounts for its contributions as compensation and benefits expense when the amounts are contributed to the plan. For the year ended December 31, 2017, compensation and benefits expense related to this plan was \$1.9 (2016 – \$1.9).

## NOTE 25 – EMPLOYEE FUTURE BENEFITS

The Company has registered pension plans with both a defined contribution tier and a defined benefit tier covering substantially all employees, as well as supplementary income plans ("SIP") for senior management. The costs of these programs are being funded currently, except for the NGX SIP, and MX SIP, where a portion is guaranteed by a letter of guarantee. The Company also provides other post-retirement and post-employment benefits, such as supplementary medical and dental coverage, which are funded on a cash basis by the Company, and contributions from plan members in some circumstances.

### (A) DEFINED CONTRIBUTION PLANS

For defined contribution plans, the expense is charged to compensation and benefits expense in the consolidated income statement as it is incurred. The total expense recognized in respect of the Company's defined contribution plans for the year ended December 31, 2017, was \$7.5, which represents the employer contributions for the period (2016 – \$7.1).

### (B) DEFINED BENEFIT PLANS

The Company measures the present value of its defined benefit obligations and the fair value of plan assets for accounting purposes as at the balance sheet date of each fiscal year. The most recent actuarial valuation of the registered pension plan for funding purposes was as at December 31, 2016, and the next required valuation is as at December 31, 2019. For the TSX SIP plans, the most recent actuarial valuations for funding purposes were as at December 31, 2016, and the next required valuations are as at December 31, 2017. For the CDS SIP plan, the funding valuation is performed annually with the most recent actuarial funding valuation completed as of January 1, 2017 and the next required valuation is at January 1, 2018. Lastly, for the non-pension post-retirement plan, the valuation date was December 31, 2015 with results extrapolated to December 31, 2017 and the next required valuation is at May 1, 2018.

The accrued benefit assets and accrued benefit obligations related to the Company's defined benefit pension and non-pension post-retirement plans are included in the Company's consolidated balance sheet at December 31 as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
Accrued employee benefit assets	\$ 7.6	\$ 9.4	\$ —	\$ —
Accrued employee benefits payable	(0.5)	(2.3)	(16.9)	(14.4)
	\$ 7.1	\$ 7.1	(16.9)	(14.4)

Accrued employee benefits payable on the consolidated balance sheet also includes the obligation under the post-employment benefit plan of \$1.3 (2016 – \$1.0).

The Company's net obligation in respect of pension and SIP plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods, and that benefit is discounted to determine its present value and the fair value of any plan assets are deducted. The benefits are based upon earnings and years of service. The Company's net obligation in respect of the post-retirement and post-employment benefit plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods, discounted to determine its present value. Under all these plans, the discount rates used are based on Canadian AA-rated corporate bond yields.

The calculation is performed annually by an actuary based on management's best estimates using the projected benefit method pro-rated on service. If the calculation results in a surplus, accounting standards require that a limit is placed on the amount of this surplus that can be recognized as an asset. The total amount of defined benefit asset that can be recognized by the Company is limited to the present value of economic benefits available by way of future refunds of plan surplus and/or reductions in future contributions to the plan. In the determination of the economic benefit, minimum funding requirements resulting from the most recent actuarial funding valuations are also taken into consideration. An economic benefit is considered available to the Company if it is realizable during the life of the plan or on settlement of the plan obligations.

The accrued benefit assets and accrued benefit liabilities are comprised of:

	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
<b>Accrued benefit obligation:</b>				
Balance, beginning of the year	\$ 114.3	\$ 108.5	\$ 14.4	\$ 13.0
Current service cost	1.9	2.5	0.9	0.8
Interest cost	4.3	4.3	0.6	0.5
Benefits paid	(12.2)	(4.4)	(0.5)	(0.5)
Employee contributions	0.1	0.2	—	—
Actuarial losses (gains)	5.3	3.2	1.7	0.6
Sale of NGX and Shorcan Energy (note 4)	(2.0)	—	(0.2)	—
<b>Balance at December 31</b>	<b>\$ 111.7</b>	<b>\$ 114.3</b>	<b>\$ 16.9</b>	<b>\$ 14.4</b>
<b>Plan assets:</b>				
Fair value, beginning of the year	\$ 121.4	\$ 113.8	\$ —	\$ —
Interest income	4.6	4.7	—	—
Employer contributions	1.5	4.7	0.5	0.5
Employee contributions	0.1	0.2	—	—
Benefits paid	(12.2)	(4.4)	(0.5)	(0.5)
Plan administration cost	(0.4)	(0.4)	—	—
Actuarial gains	3.8	2.8	—	—
<b>Fair value at December 31</b>	<b>\$ 118.8</b>	<b>\$ 121.4</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Accrued benefit asset (liability) at December 31</b>	<b>\$ 7.1</b>	<b>\$ 7.1</b>	<b>\$ (16.9)</b>	<b>\$ (14.4)</b>

Plan assets consist of:

Asset category	Percentage of plan assets	
	December 31, 2017	December 31, 2016
Equity securities	47.1%	49.9%
Debt securities	36.7%	34.2%
Other	16.2%	15.9%
	<b>100.0%</b>	<b>100.0%</b>

The plan assets include units held in a pooled fund investments which holds debentures in TMX Group Limited. These debentures comprise of less than 0.100% of the fair value of plan assets as at December 31, 2017 (2016 – 0.070%).

MX has provided a letter of guarantee in the amount of \$0.6 to the benefit of the trustee of the MX SIP (2016 – \$0.6), using a part of the TMX Group Limited credit facility (note 12).

The service cost, which represents the benefits accruing to the employees, along with the interest cost and the expected return on plan assets, is recognized in the compensation and benefits expense in the consolidated income statement.

The elements of the Company's defined benefit plan costs recognized in the year ended December 31 are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
Current service cost	\$ 1.9	\$ 2.5	\$ 0.9	\$ 0.8
Net interest (income) cost	(0.4)	(0.4)	0.6	0.5
Plan administration cost	0.4	0.4	—	—
<b>Net benefit plan expense recognized in the consolidated income statement</b>	<b>\$ 1.9</b>	<b>\$ 2.5</b>	<b>\$ 1.5</b>	<b>\$ 1.3</b>

The Company recognizes all actuarial gains and losses arising from defined benefit plans and post-retirement plans immediately in other comprehensive income. For the post-employment plans, actuarial gains and losses are recognized within compensation and benefits expense in the consolidated income statement. When the benefits of a plan are amended, the portion of the change in benefit relating to past service by employees is recognized immediately in the compensation and benefits expense in the consolidated income statement.

The aggregate actuarial gains and losses and effects of asset limits recognized in other comprehensive income for the year ended December 31, are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
Effect due to demographics	\$ 2.3	\$ —	\$ 1.0	\$ —
Effect due to financial assumptions	4.0	4.7	0.7	0.6
Effect due to experience adjustments	(1.0)	(1.5)	—	—
Return on plan assets (excluding interest income)	(3.8)	(2.8)	—	—
<b>Actuarial losses (gains) recognized in other comprehensive income</b>	<b>\$ 1.5</b>	<b>\$ 0.4</b>	<b>\$ 1.7</b>	<b>\$ 0.6</b>

The significant actuarial assumptions adopted in measuring the obligation as at December 31 are as follows:

	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
Discount rate (weighted average)	3.50%	3.80%	3.50%	3.80%
Inflation rate (consumer price index)	1.75%	1.75%	n/a	n/a
Commuted value	3.00%	3.00%	n/a	n/a
Rate of compensation increase	3.25%	3.25%	n/a	n/a

Assumptions regarding mortality rates are based on published statistics and mortality tables. The mortality tables used in 2016 and 2017 for the pension, SIP and other post-retirement plans was the Canadian Pensioner Mortality (CPM) RPP2014 private sector table with projection scale CPM-B and CPM RPP2014 table with projection scale CPM-B for lump sum payments. The assumed health care cost trend rate at December 31, 2017 was 6.15% decreasing to 4.50% over 12 years (2016 – 6.3% decreasing to 4.50% over 13 years).

Reasonably possible changes to one of the relevant actuarial assumptions, holding other assumptions constant, would impact the accrued benefit obligations as follows:

(Increase)/Decrease	Pension and SIP plans		Other post-retirement benefit plans	
	2017	2016	2017	2016
50 bps decrease in the discount rate	\$ (7.3)	\$ (6.7)	\$ (1.2)	\$ (1.0)
50 bps increase in the discount rate	6.4	6.0	1.1	0.9
25 bps decrease in inflation assumptions	—	0.2	n/a	n/a
25 bps increase in inflation assumptions	—	(0.2)	n/a	n/a
1 year increase in mortality rates	(2.0)	(1.8)	(0.7)	(0.6)
100 bps decrease in initial and ultimate trend rates	n/a	n/a	0.8	0.6
100 bps increase in initial and ultimate trend rates	n/a	n/a	(0.9)	(0.7)

In 2018, the Company expects to contribute approximately \$3.6 to its pension and other post-retirement benefit plans. Additional amounts to be contributed to the Company's SIP plans will be determined by management once the valuations have been prepared.

## NOTE 26 – SHARE CAPITAL

The authorized capital of the Company consists of an unlimited number of common shares and an unlimited number of preference shares, issuable in series. No preference shares have been issued.

Each common share of the Company entitles its holder to one vote at all meetings of shareholders subject to certain restrictions with respect to the voting rights and the transferability of the shares. No person or combination of persons acting jointly or in concert is permitted to beneficially own or exercise control or direction over more than 10% of any class or series of voting shares of the Company without the prior approval of the OSC and the AMF.

Each common share of the Company is also entitled to receive dividends if, as and when declared by the Board of Directors of the Company. All dividends that the Board of Directors of the Company may declare and pay will be declared and paid in equal amounts per share on all common shares, subject to the rights of holders of the preference shares. Holders of common shares will participate in any distribution of the net assets of the Company upon liquidation, dissolution or winding-up on an equal basis per share, but subject to the rights of the holders of the preference shares.

There are no preemptive, redemption, purchase or conversion rights attaching to the common shares, except for the compulsory sale of shares or redemption provision described in connection with enforcing the restriction on ownership of voting shares of the Company.

Each of CIBC World Markets Inc., National Bank Financial & Co. Inc., Scotia Capital Inc., and TD Securities Inc., either directly or through an affiliate, has agreed to maintain a specified minimum ownership interest in the Company for a period of five years from September 14, 2012. During the first year, each of these investors was required to own at least 6.25% and for each of the four following years, at least 5.625%, of the Company's common shares outstanding as at September 14, 2012. The commitment to maintain a specified minimum ownership interest expired in September 2017.

In 2012, the Company entered into nomination agreements with each of Alberta Investment Management Corporation, Caisse de dépôt et placement du Québec, Canada Pension Plan Investment Board, CIBC World Markets Inc., National Bank Group Inc., Ontario Teachers' Pension Plan Board, Scotia Capital Inc. and TD Securities Inc., either directly or through an affiliate, (the "Nominating Investors") under which each Nominating Investor is granted the right to nominate one director for election to the Company's board of directors until the earlier of (a) September 14, 2018; and (b) such time as the Nominating Investor ceases to own, directly or indirectly, 5.0% of the Company's total issued and outstanding common shares as at September 14, 2012. As at December 31, 2017, the nomination agreements with each of Alberta Investment Management Corporation, Scotia Capital Inc. and CIBC World Markets Inc. terminated. During the six years following September 14, 2012, should a Nominating Investor (including a Nominating Investor whose nomination agreement has terminated) wish to sell 0.75% or more of the outstanding common shares of the Company, it must be done in accordance with prescribed procedures as agreed to by the Nominating Investors.

The following transactions occurred with respect to the Company's common shares during the period:

	Number of common shares issued and fully paid		Share capital	
	2017	2016	2017	2016
Balance, beginning of the period	55,021,569	54,392,253	\$ 2,896.4	\$ 2,861.7
Options exercised	362,167	629,316	19.1	34.7
<b>Balance as at December 31</b>	<b>55,383,736</b>	<b>55,021,569</b>	<b>\$ 2,915.5</b>	<b>\$ 2,896.4</b>

The Company's shares trade on Toronto Stock Exchange under the symbol "X".

## NOTE 27 – RELATED PARTY RELATIONSHIPS AND TRANSACTIONS

### (A) PARENT

The shares of the Company are widely held and as such there is no ultimate controlling party of the Company. While in aggregate the Nominating Investors own a significant portion of the common shares outstanding of the Company, under the OSC and AMF recognition orders, no person or combination of persons acting jointly or in concert is permitted to beneficially own or exercise control of direction over more than 10% of any class or series of voting shares of the Company without prior approval of the OSC and the AMF.

### (B) KEY MANAGEMENT PERSONNEL COMPENSATION

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

For the year ended	December 31, 2017		December 31, 2016	
Salaries and other short-term employee benefits	\$	8.2	\$	9.9
Post-employment benefits		0.7		1.0
Share-based payments		6.0		15.1
	\$	14.9	\$	26.0

### (C) OTHER RELATED PARTY TRANSACTIONS

In aggregate, the Nominating Investors hold a significant proportion of the common shares outstanding of the Company. The Company and its subsidiaries transact with a number of the Nominating Investors on a regular basis through their normal operations. Transactions are conducted at prevailing market prices and on general market terms and conditions.

## NOTE 28 – DIVIDENDS

Dividends recognized and paid in the period are as follows:

For the year ended	December 31, 2017		December 31, 2016	
	Dividend per share	Total paid	Dividend per share	Total paid
Dividend paid in March	\$ 0.45	\$ 24.8	\$ 0.40	\$ 21.8
Dividend paid in June	0.50	27.6	0.40	21.8
Dividend paid in September	0.50	27.7	0.40	21.9
Dividend paid in December	0.50	27.7	0.45	24.7
<b>Total dividends paid</b>		<b>\$ 107.8</b>		<b>\$ 90.2</b>

On February 12, 2018, the Company's Board of Directors declared a dividend of 50 cents per share. This dividend will be paid on March 16, 2018 to shareholders of record on March 2, 2018 and is estimated to amount to \$27.7.



## NOTE 29 – FUTURE CHANGES IN ACCOUNTING POLICIES

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A number of other new standards and amendments to standards and interpretations are not yet effective for the year ending December 31, 2017, and have not been applied in the preparation of the financial statements. These new and amended standards and interpretations are required to be implemented for financial years beginning on or after January 1, 2018, unless otherwise noted:

- IFRS 15, *Revenue from Contracts with Customers* - The IASB and the U.S. Financial Accounting Standards Board (“FASB”) jointly issued converged accounting standards on the recognition of revenue from contracts with customers; the IASB’s standard is IFRS 15, *Revenue from Contracts with Customers*. The previous requirements of both IFRS and U.S. GAAP were different and often resulted in different accounting for transactions that were economically similar. IFRS 15 and its U.S. GAAP equivalent, contain a single revenue model that applies to contracts with customers with the exception of contracts for insurance, financial instruments and leases. Under the model, there are two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The mandatory effective date for IFRS 15 is for annual periods beginning on or after January 1, 2018 with either full retrospective application, retrospective with optional practical expedients or a modified prospective approach with disclosure requirements.

The Company has undertaken an assessment of each material revenue stream in accordance with the prescribed five-step model to determine the impact on the timing and measurement of its revenue recognition. Based on this assessment, the Company has determined that this standard will only have an impact on the timing of revenue recognition related to listing fees. However, the impact is not expected to be material. The Company intends to adopt the cumulative effect approach of transition to IFRS 15. The Company is currently assessing the impact of IFRS 15 on Trayport revenue streams. However, the impact is not expected to be material.

- IFRS 9, *Financial Instruments* - IFRS 9 replaces the guidance in IAS 39, *Financial Instruments: Recognition and Measurement*, for the classification and measurement of financial assets and financial liabilities and new standards for hedge accounting. Financial assets will be classified into one of two categories on initial recognition: amortized cost or fair value. For financial liabilities measured at fair value under the fair value option, changes in fair value attributable to changes in credit risk will be recognized in other comprehensive income, with the remainder of the change recognized in profit or loss. IFRS 9 will provide for more hedging strategies to qualify for hedge accounting, introduce more judgment in assessing the effectiveness of a hedging relationship, and include a single, forward-looking “expected loss” impairment model. The mandatory date for IFRS 9 is for annual periods beginning on or after January 1, 2018, with early application permitted for annual periods beginning on or after January 1, 2015.

To assess the classification and measurement of its financial assets, the Company analyzed its business model for managing financial assets, the respective cash flow characteristics, and the contractual terms of these assets. To assess the impairment of its financial instruments, the Company identified assets or asset classes that are in scope and applied a simplified approach or a three-stage model for impairment based on changes in credit quality since initial recognition. The adoption of IFRS 9 is expected to change the Company’s accounting policy for recognition, classification and measurement of financial instruments. However, the impact is not expected to be material. The Company intends to adopt IFRS 9 in its financial statements for the annual period beginning on January 1, 2018.

- Annual improvements 2014-2016 cycle (Amendments to IFRS 1 and IAS 28) - The amendments remove out-dated exemptions for first time adopters under IFRS 1, *First-time Adoption of International Financial Reporting Standards* and clarify the election to measure an associate or joint venture at fair value under IAS 28, *Investments in Associates and Joint Ventures* for investments held directly, or indirectly, through a venture capital or other qualifying entity can be made on an investment-by-investment basis. The amendments are effective retrospectively for annual periods beginning on or after January 1, 2018. The Company intends to adopt these amendments in its financial statements for the annual period beginning on January 1, 2018. The Company does not expect the amendments to have a material impact on the financial statements.
- Classification and measurement of share-based payment transactions (Amendments to IFRS 2, *Share-based Payments*) - The amendments clarify the accounting for the effects of vesting conditions on cash-settled share-based payment transactions, the classification of share-based payment transactions with net settlement features for withholding tax obligations and the accounting for a modification to the terms and conditions of a share-based payment that changes the transaction from cash-settled to equity-settled. The amendments are effective for annual periods beginning on or after January 1, 2018 with earlier application permitted. The Company intends to adopt the amendments to IFRS 2 in its financial statements for the annual



period beginning on January 1, 2018. The Company does not expect the amendments to have a material impact on the financial statements.

- IFRIC 22, *Foreign currency transactions and advance consideration* (Interpretation of IAS 21, *The Effects of Changes in Foreign Exchange Rates*) - This interpretation clarifies the accounting for transactions that include the receipt or payment of advance consideration in a foreign currency. The interpretation is effective for annual periods beginning on or after January 1, 2018. The Company intends to adopt the Interpretation in its financial statements for the annual period beginning on January 1, 2018. The Company does not expect the Interpretation to have a material impact on the financial statements.
- IFRS 16, *Leases* - The IASB issued a new standard on leases which provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements. IFRS 16 supersedes IAS 17, *Leases* and its associated interpretative guidance. IFRS 16 applies a control model to the identification of leases, differentiating between leases and service contracts on the basis of whether there is an identified asset controlled by the customer. Among other significant changes, the distinction between operating and finance leases is removed and assets and liabilities are recognized in respect of all leases. Further, IFRS 16 requires a front-loaded pattern for the recognition of lease expense over the life of the lease. The mandatory effective date for IFRS 16 is for annual periods beginning on or after January 1, 2019 with earlier application permitted for entities that have also adopted IFRS 15. The Company intends to adopt IFRS 16 in its financial statements for the annual period beginning on January 1, 2019. The Company has begun its initial assessment of the potential impact on its consolidated financial statements. The extent of the impact of adoption of the standard has not yet been determined.

# Board of Directors

AS OF MARCH 28, 2018

## Charles Winograd (Chair)

Senior Managing Partner  
Elm Park Capital Management  
Committees: Governance, Human Resources  
Director since: 2012

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## Luc Bertrand

Vice Chair  
National Bank Financial Group  
Committees: Derivatives (Chair),  
Public Venture Market  
Director since: 2011

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## Denyse Chicoyne

Corporate Director  
Committees: Finance and Audit,  
Governance, Regulatory Oversight  
Director since: 2012

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## Jeffrey Heath

Corporate Director  
Committees: Derivatives, Finance and Audit  
Director since: 2012

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## Martine Irman

Senior Vice President, TD Bank Group  
and Vice Chair, Head of Global Enterprise  
Banking, TD Securities  
Committees: Derivatives, Public Venture Market  
Director since: 2014

## Harry Jaako

Executive Officer, Director and a Principal  
Discovery Capital Management Corp.  
Committees: Finance and Audit,  
Public Venture Market (Chair)  
Director since: 2012

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## Louis Eccleston

Chief Executive Officer  
TMX Group Limited  
Director since: 2014

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## Christian Exshaw

Managing Director and Head Global Markets  
CIBC World Markets Inc.  
Committees: Derivatives  
Director since: 2015

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## Marie Giguère

Corporate Director  
Committees: Governance (Chair),  
Regulatory Oversight  
Director since: 2011

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## Lise Lachapelle

Strategic and Economic Consultant  
and Corporate Director  
Committees: Human Resources,  
Regulatory Oversight  
Director since: 2014

## **William Linton**

Corporate Director  
Committees: Finance and Audit (Chair),  
Governance  
Director since: 2012

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## **Jean Martel**

Partner  
Lavery, de Billy LLP  
Committees: Regulatory Oversight (Chair)  
Director since: 2012

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## **Peter Pontikes**

Executive Vice President, Public Equities  
Alberta Investment Management Corporation  
Committees: Governance, Public Venture Market  
Director since: 2015

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## **Gerri Sinclair**

Managing Partner, Kensington Capital Partners  
Digital Technologies Consultant  
and Corporate Director  
Committees: Human Resources,  
Public Venture Market  
Director since: 2012

## **Kevin Sullivan**

Deputy Chairman  
GMP Capital Inc.  
Committees: Derivatives, Public Venture Market  
Director since: 2012

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## **Anthony Walsh**

Corporate Director  
Committees: Finance and Audit,  
Public Venture Market  
Director since: 2012

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## **Eric Wetlaufer**

Senior Managing Director & Global Head  
of Public Market Investments  
Canada Pension Plan Investment Board  
Committees: Human Resources (Chair)  
Director since: 2012

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## **Michael Wissell**

Senior Vice-President, Portfolio Construction Group  
Ontario Teachers' Pension Plan Board  
Committees: Derivatives, Human Resources  
Director since: 2014

# TMX Group Executive Committee

AS OF MARCH 28, 2018



**Louis Eccleston**

Chief Executive Officer  
TMX Group



**Mary Lou Hukezalie**

Senior Vice President,  
Group Head of  
Human Resources  
TMX Group



**Jean Desgagné**

President and CEO,  
TMX Global Solutions,  
Insights and  
Analytics Strategies  
TMX Group



**John McKenzie**

Chief Financial Officer  
TMX Group



**Luc Fortin**

President and Chief  
Executive Officer,  
Montréal Exchange and  
Global Head of Trading  
TMX Group



**Jay Rajarathinam**

Chief Information Officer  
TMX Group



**Cheryl Graden**

Senior Vice President,  
Group Head of Legal  
and Business Affairs,  
Enterprise Risk  
Management and  
Government Relations  
and Corporate Secretary  
TMX Group

# Shareholder Information

## Stock Listing

Toronto Stock Exchange  
Share Symbol "X"

## Auditor

KPMG LLP  
Toronto, ON

## Share Transfer Agent

Requests for information regarding share transfers should be directed to the Transfer Agent:

TSX Trust Company  
100 Adelaide St. West  
Suite 301  
Toronto, ON  
M5H 4H1

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## Forward-Looking Information

This report contains forward-looking statements, which are not historical facts but are based on certain assumptions and reflect TMX Group's current expectations. These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results or events to differ materially from current expectations. We have no intention to update this forward-looking information, except as required by applicable securities law.

This forward-looking information should not be relied upon as representing our views as of any date subsequent to the date of this report. Please see "Caution regarding Forward-Looking Information" in the 2017 Management's Discussion and Analysis for some of the risk factors that could cause actual events or results to differ materially from current expectations.

# For more information

Please contact TMX Group if you have any additional questions or require further clarification.

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