2023 ANNUAL REPORT ON CAPITAL MARKETS

CSA Systemic Risk Committee

January 2024

Canadian Securities Administrators
Autorités canadiennes en valeurs mobilières

A MESSAGE FROM THE CSA CHAIR

The mitigation of systemic risk is an important component of the CSA's objectives. While Canadian capital markets and the financial system more broadly have a long history of stability, we understand that the benefits of financial evolution may also bring new risks. In addition to the CSA's policy developments to protect investors and ensure fair, efficient and transparent markets, we recognize the need to consider interconnections and how risks may transmit through our markets and financial system.

I am pleased to introduce the annual report from the CSA Systemic Risk Committee (SRC). The SRC's mandate is to identify, analyze, and monitor emerging and systemic risk on behalf of the CSA and report its findings to CSA members. The CSA is making public this report for the first time as part of its strategic goal to promote integrity and financial stability through effective market oversight. We think that the report will contribute to the securities regulators' perspective on potential vulnerabilities in Canadian financial markets, as well as complement the work of other provincial and federal regulators and agencies.

We hope that our observations will be considered by market participants and contribute to practices that support the reduction of financial vulnerabilities. We also look forward to the CSA's continuing work through the Heads of Regulatory Agencies Committee and the International Organization of Securities Commissions.

On behalf of all CSA member chief executives, I would like to thank the staff of the SRC for their ongoing contribution to this critical part of our mandate as securities regulators.

Stan Magidson

CSA Chair

BACKGROUND

The Canadian Securities Administrators (CSA) is the umbrella organization of Canada's provincial and territorial securities regulators. Its mission is to improve, coordinate and harmonize regulation of the Canadian capital markets. The CSA's key objectives are: 1) the protection of investors; 2) fair, efficient and transparent markets; and 3) the reduction of systemic risk.

In 2009, the CSA created the Systemic Risk Committee (SRC) as the principal forum for CSA staff to analyze and monitor systemic and emerging risks. It is comprised of staff from the securities regulatory authorities of Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Québec, and Saskatchewan.

Current SRC members are:

Omid Atabati, ASC

Nouhou Ballo, AMF

Philippe Bergevin, AMF (Chair)

John Bulmer, OSC

Jean-Paul Calero, AMF

Steven Clow, ASC

Alexandre d'Aragon, AMF

Mario Houle, AMF

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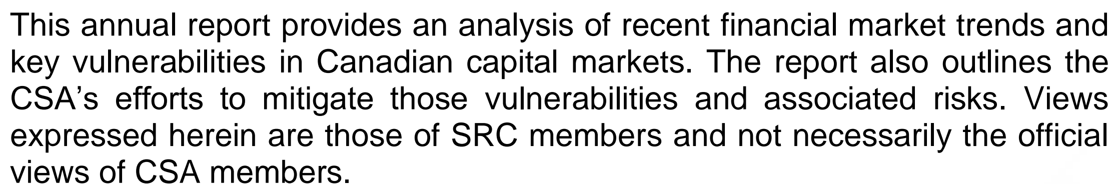

This annual report provides an analysis of recent financial market trends and key vulnerabilities in Canadian capital markets. The report also outlines the CSA's efforts to mitigate those vulnerabilities and associated risks. Views expressed herein are those of SRC members and not necessarily the official views of CSA members.

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Executive Summary

In this report, the CSA Systemic Risk Committee (SRC) presents an analysis of recent trends and key vulnerabilities in Canadian capital markets. We also highlight CSA measures that mitigate those vulnerabilities and associated risks.

High inflation and interest rates have continued to weigh on the economy and financial markets in 2023. The Canadian economy slowed considerably while bond yields reached highs not observed since the 2007-2008 global financial crisis. The future path of interest rates and the economic outlook remain highly uncertain. Nonetheless, major stock market indices have rebounded following significant declines in 2022.

The important rise in interest rates and the tightening of monetary conditions have created challenges for market participants. Nonetheless, the SRC is of the view that risks to financial stability in Canadian capital markets are well contained.

This report also highlights the following trends and vulnerabilities:

- *Benchmarks:* The transition from CDOR to CORRA is proceeding as planned. CORRA take-up accelerated markedly in 2023. After a two-stage transition, CDOR will cease to be published on June 28, 2024.
- *Bond market:* The higher rate environment has not adversely impacted bond trading activity. Bond turnover and other key liquidity metrics remained within normal ranges. However, the overall credit quality profile of Canadian non-financial corporate bonds declined somewhat.
- *Clearing:* Clearing activity in Canada continued to trend higher. Some of the trends that the SRC monitors include the growing importance of certain exempted central counterparties, the implementation of initiatives related to post-trade modernization and shorter settlement cycles, and the procyclical nature of margining requirements. Central counterparties have demonstrated resilience during recent market stress events.
- *Crypto assets:* The crypto asset market remains volatile and unstable. The links between the crypto asset sector and the traditional financial sector appear limited. The CSA continues to work with other regulators to examine any potential supervisory gaps and risks, notably related to value-referenced crypto assets.
- *Dealers:* The failure of a large dealer could have broad repercussion given the high degree of interconnection between large dealers and other market participants. Appropriate measures to prevent failures are in place and leverage levels remain relatively low.
- *Investment funds:* Overall, fund liquidity risks are low and well managed. However, exempt funds that invest in private assets – such as private debt, private equity and real estate – report liquidity mismatches. Also, liquidity pressures may increase if economic conditions deteriorate. Finally, exchange-traded funds have demonstrated resilience during recent episodes of financial stress.

- *Marketplaces:* Total value traded in Canada’s equity marketplaces declined over the past year. The risk of disruption to a dominant marketplace is a potential vulnerability. Overall, the impact of recent outages on Canadian markets appears limited. There are international efforts underway to identify lessons learned from recent market outages in various jurisdictions and to develop guidance to enhance market resilience.
- *OTC derivatives:* The Canadian over-the-counter (OTC) derivatives market is facilitated by large financial institutions with connections to many other entities across most industries. The failure of a large, highly connected entity may affect other parties. This market can also facilitate the buildup of large exposures. Regulatory developments in Canada have greatly helped minimize those risks. The CSA is focused on improving the quality and reliability of the data it collects on this market.
- *Securitization:* The private securitization market in Canada expanded in 2023, although it has yet to rebound to pre-2008 levels and remains relatively small. CSA amendments to short-term securitized product prospectus exemption have helped address various issues identified in the ABCP market. The credit performance of securitized instruments has remained robust.

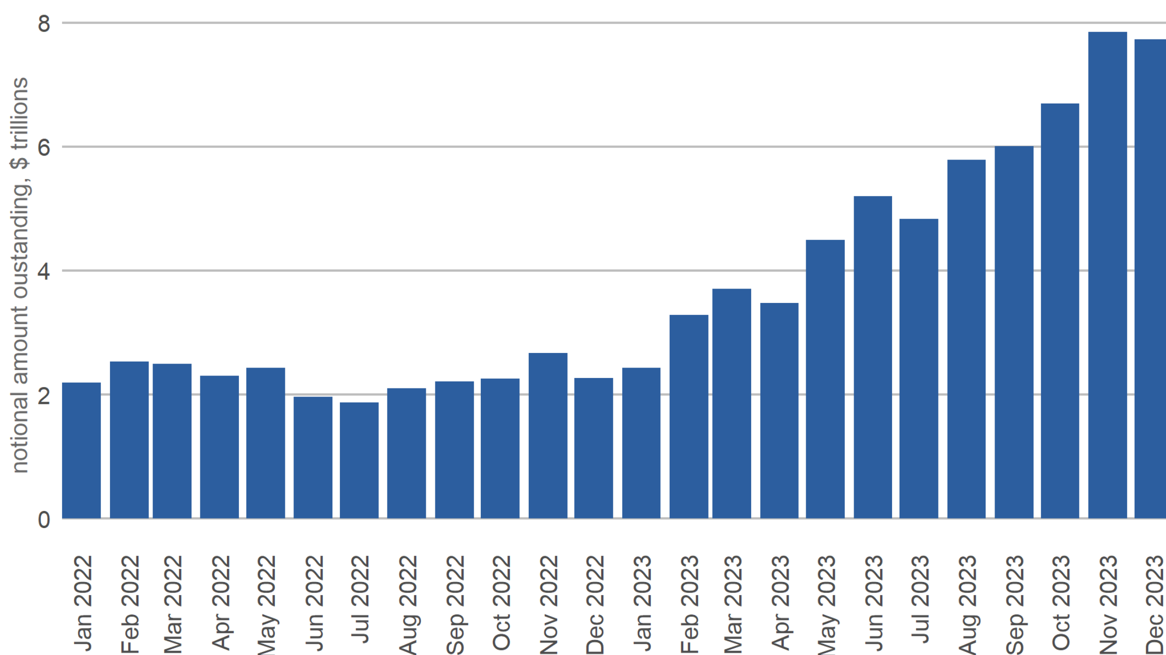
Overview of Main Vulnerabilities

Benchmark Transition

Since 2018, the Canadian Alternative Reference Rate Working Group (CARR)[1] has led Canada's transition from credit sensitive rates to risk-free rates. Specifically, the Canadian Dollar Offered Rate (CDOR) is being replaced by the Canadian Overnight Repo Rate Average (CORRA), an overnight risk-free rate, for most instruments or Term CORRA, a term rate, for trade finance, loans and derivatives associated with loans. CDOR will cease to be published on June 28, 2024, following a two-stage transition.

The first stage was completed on June 30, 2023, with all new derivative and securities transactions transitioning to CORRA, with limited exceptions. Indeed, CORRA take-up accelerated markedly throughout 2023.[2] Moving forward, market participants are encouraged to actively transition their legacy exposure rather than relying on fallbacks that will be automatically triggered with the cessation of CDOR.[3]

Figure 1 – Outstanding notional of OTC derivatives referencing CORRA



Source: OSC Derivatives Trade Repository & CSA staff calculations.

The second stage of the transition involves loans and associated derivatives. Term CORRA, a new interest rate benchmark, was developed and launched by CanDeal Benchmark Administration Services (CBAS) on September 5, 2023. Term CORRA is a forward-looking

[1] See Canadian Alternative Reference Rate Working Group.

[2] See OSC's CDOR/CORRA-based OTC derivatives trend analysis and CARR's From CDOR to CORRA: Weekly derivatives transition update.

[3] Securities referencing CDOR that mature after June 28, 2024. See CARR's Analysis and recommendations on CDOR Legacy Securities.

measurement of CORRA for 1- and 3-month tenors, based on market-implied expectations from CORRA derivatives markets. Term CORRA's use will be limited initially through its licensing agreements to trade finance, loans and derivatives associated with loans.

Since November 1, 2023, banks no longer offer to clients new CDOR or Bankers' Acceptances (BA) based loans. From that date, it is expected that corporate and commercial loans will primarily reference CORRA, Term CORRA or the prime rate. It is important to note that if the liquidity of the underlying CORRA futures market fails to develop sufficiently to ensure an IOSCO compliant rate,[4] Term CORRA may cease to be published. Therefore, loans referencing Term CORRA should have robust fallbacks to CORRA.

One of the significant effects of the transition away from CDOR is the disappearance of the BA market. Currently comprising about 20% (or approximately $90 billion) of the notional outstanding in the Canadian money market, BAs are the second largest money market instrument after treasury bills. To ensure a well-functioning money market during the transition, the Canadian Fixed-Income Forum (CFIF) recommends that banks gradually taper off their BA issuance from November 1, 2023, coinciding with CARR's "no new CDOR or BA loan" milestone. CFIF suggests that banks reduce their outstanding stock of BAs to $70 billion by the end of January 2024, to $35 billion by the end of April 2024, with $10-20 billion of BAs to be issued in June 2024.

As there is no single substitute, BAs are expected to be replaced by a mix of existing financial products (bearer deposit notes, repurchase agreements, asset-backed commercial paper, etc.) and new ones to be developed. Following consultations with market participants, the government of Canada is considering the introduction of a temporary one-month treasury bill to fill a projected gap in the one-month tenor and to provide time for constrained investors to move to other money market assets. Exemptive relief from certain regulatory constraints in National Instrument 81-102 *Investment Funds* could also be needed regarding the use of alternative products, notably by money market funds.

CARR found that so-called tough legacy securities[5] are relatively small in number and exposure. Therefore, CARR issued recommendations to issuers and investors on how to deal with these types of securities but does not see the need for legislative solutions as seen in other jurisdictions.

So far, the CDOR transition is proceeding as planned with milestones reached as expected. CARR issues guidance notices to the market regularly, and both CARR and CFIF are working with other regulatory and industry bodies to ensure a smooth transition. As the Canadian transition follows similar risk-free rate transitions in other jurisdictions, CARR and CFIF can build on lessons learned elsewhere and have developed their plan accordingly. While

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[4] As set out in IOSCO's Principles of Financial Benchmarks. The Principles address benchmark governance, quality and accountability mechanisms.

[5] Securities referencing CDOR that mature after June 28, 2024 and have both (i) inadequate or no CDOR fallback language, and (ii) high consent thresholds for amending governing documentation. See CARR's Analysis and recommendations on CDOR Legacy Securities.

the disappearance of the BA market is specific to Canada in the current transition, parallels can be drawn from Australia, where the BA lending model was abandoned after the introduction of Basel banking reforms a decade ago, following the great financial crisis.

For its part, the CSA issued CSA Staff Notice 25-309 *Matters Relating to Cessation of CDOR and Expected Cessation of Bankers' Acceptances* in February 2023 to raise securities-related matters for market participants. In September, following a consultation, OSC and AMF designated Term CORRA as a designated interest rate benchmark and CBAS as its designated benchmark administrator. As a result, CBAS must comply with the applicable provisions of Multilateral Instrument 25-102 *Designated Benchmarks and Benchmark Administrators* in respect of Term CORRA. Both regulators will continue their ongoing oversight of CDOR until its cessation and of its designated administrator, Refinitiv Benchmark Services (UK) Limited. In particular, they will monitor any issues arising as banks acting as benchmark contributors to CDOR make daily CDOR submissions in an environment with declining BA transactions. All the while, CSA staff will continue to monitor and report on various transition issues to the Heads of Regulatory Agencies Committee periodically.[6]

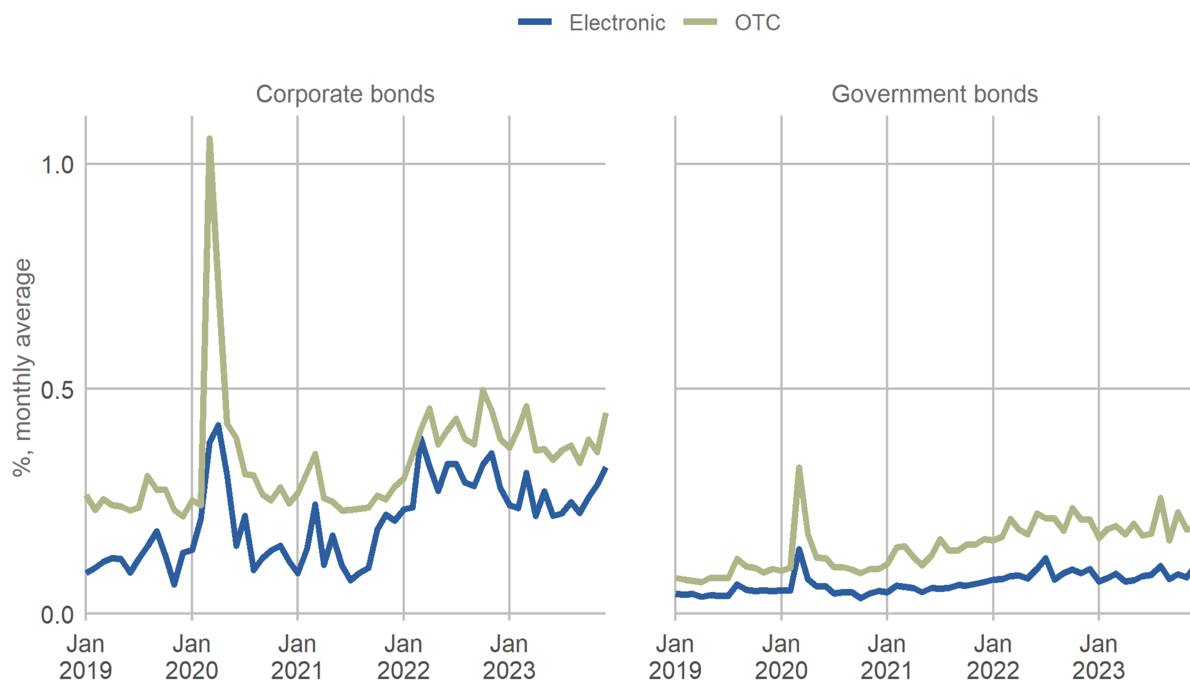
[6] See Heads of Regulatory Agencies Committee: Terms of Reference.

Bond Liquidity

In periods of economic and financial turmoil, market participants may reach the limits of their capacity to intermediate bond trading. In March 2020, those limits were put to the test. Under selling pressure, as investors sought to bolster their cash holdings, corporate bond prices fell sharply. The Bank of Canada acted as a buyer of last resort for government bonds and other fixed-income instruments, allowing market participants to meet their immediate cash needs. Federal transfers to businesses and households also supported cash holdings during the pandemic. More recently, strong demand and global supply disruptions have contributed to higher inflation. In this inflationary environment, bond yields and the Bank of Canada policy rate have sharply risen, but credit spreads have remained relatively tight.

The higher interest rate environment has not adversely impacted the bond market. Trading activity, bond turnover, and other key liquidity metrics remain within normal ranges. Estimated bid-ask spreads have widened somewhat, as higher interest rates increase the cost of capital for liquidity providers. In the institutional bond market, estimated bid-ask spreads have risen for corporate and government bond trades since 2021 (see Figure 2).

Figure 2 – Estimated bid-ask spreads on round-lot trades ($1-5 million)



As of December 2023. Source: CIRO MTRS 2.0, Refinitiv & CSA staff calculations.

Since 2020, a greater share of corporate bond trading volume has shifted to electronic trading venues in Canada. The share of corporate bond trading volume executed on electronic trading platforms has increased from low single digits in 2020 to about 8% in December 2023. Although this trend is promising, Canada still lags the US in terms of bond

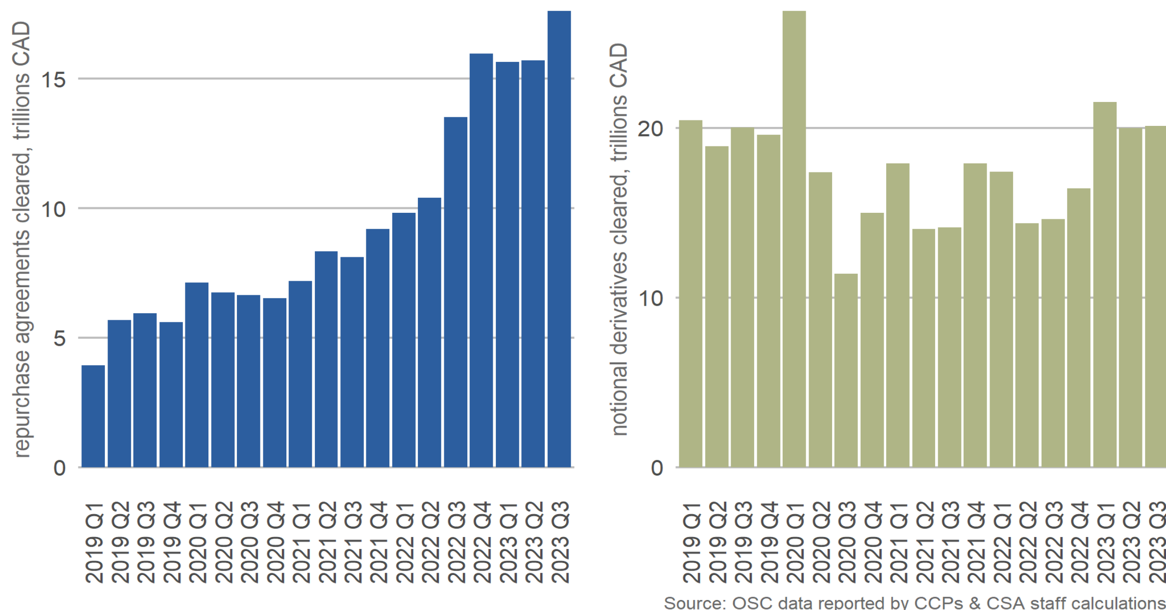
market electronification, as MarketAxess alone represents nearly 20% of total US corporate bond trading volume.[7]

[7] See MarketAxess Announces Monthly Volume Statistics for December and Fourth Quarter 2023.

Clearing Agencies

The Canadian clearing sector consists of derivatives and cash securities cleared by Canadian participants through domestic and foreign central counterparties (CCPs). This report section focuses on activity and collateral pledged by Ontario-based participants through the 11 CCPs recognized or exempt from recognition as clearing agencies in Ontario, providing a reliable and representative view of overall Canadian financial (non-commodity) clearing activity. The section also highlights notable developments related to securities settlement systems.

Figure 3 – Notional value of repo and derivatives cleared by CCPs recognized or exempt in Ontario



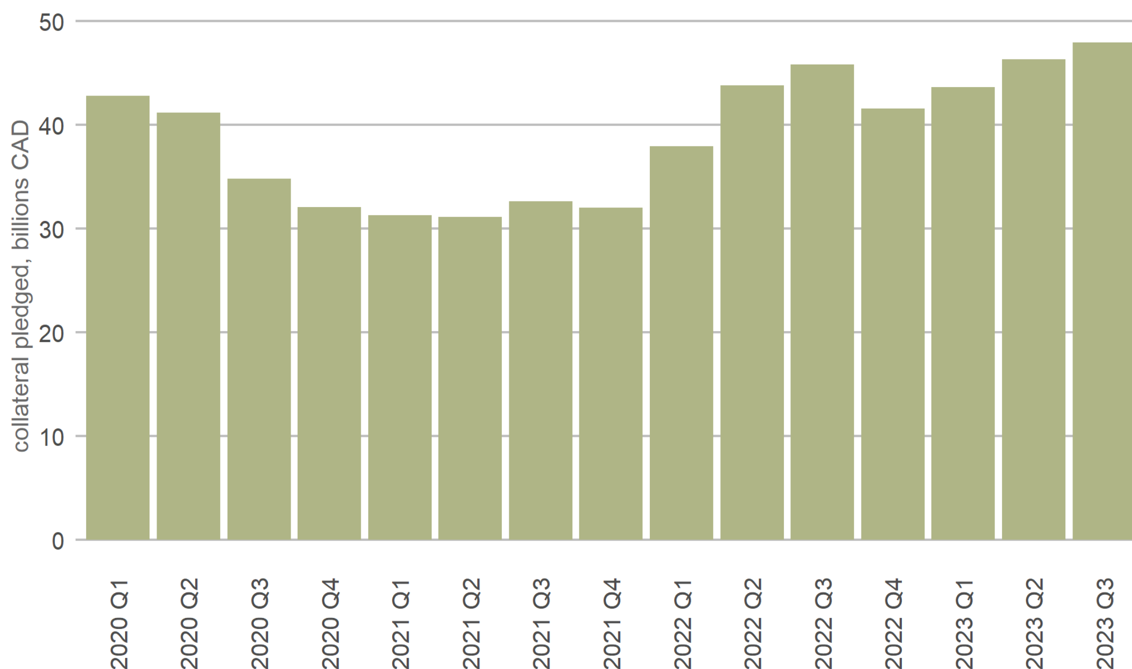
Source: OSC data reported by CCPs & CSA staff calculations.

Overall, clearing activity is trending higher compared to 2022. The notional value of derivatives cleared during Q3 2023 was $20 trillion, slightly below pre-pandemic levels. However, the value of fixed-income repurchase agreements (repos) cleared almost tripled compared to pre-pandemic levels, reaching nearly $18 trillion.[8] Collateral pledged is a more accurate measure of participant exposures to CCPs. Total collateral requirements, approximately $48 billion, slightly exceeded pandemic levels, mainly due to increased clearing activity and market volatility.[9]

[8] Note that these figures are based on trading volume and therefore may not represent risk exposure, nor be comparable across instruments that have different levels of trading volume.

[9] Collateral includes margins and default fund resources.

Figure 4 – Collateral pledged to CCPs recognized or exempt in Ontario



Source: OSC data reported by CCPs & CSA staff calculations.

Systemically important clearing agencies are more interconnected and have greater potential to adversely affect financial stability if their services are disrupted. Three clearing agencies – CDS Clearing and Depository Services (CDS), Canadian Derivatives Clearing Corporation (CDCC), and London Clearing House (LCH) – are recognized by certain provincial securities regulators and are subject to their supervision.[10] These agencies are also designated as systemically important and subject to oversight by the Bank of Canada.[11]

While the set of systemically important CCPs has remained largely unchanged over the last decade, certain exempted CCPs may be growing in importance in Canada. Provincial securities regulators that exempted these entities regularly monitor their activity and the risk they pose to Canada's capital markets (considering factors such as the number of Canadian clearing members and clients, cleared volumes, collateral pledged, etc.). Exempted CCPs in Canada typically hold designations as systemically important financial market infrastructures in other major jurisdictions, such as the US, the UK, and certain EU countries, and are subject to heightened prudential and supervisory provisions.[12]

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[10] The CDS and CDCC are recognized by the AMF, BCSC and OSC. The LCH is recognized by the AMF and OSC. The primary regulator for LCH is the Bank of England. At the clearing-member level, certain foreign clearing members that provide Canadian participants with access to foreign CCPs may also be critical.

[11] Clearing agencies in this context refer to central counterparties and securities settlement systems. The Bank of Canada has also designated other types of financial market infrastructures.

[12] The OSC currently exempts a number of CCPs from recognition by order with terms and conditions and has a memorandum of understanding with each of the home regulators that facilitates information sharing. The OSC meets with the home regulators on a regular or as-needed basis.

Monitoring operational developments at systemically important CCPs is essential. The CDS is undergoing two major initiatives. The first, known as the post-trade modernization (PTM) initiative, involves a complete modernization of its technology infrastructure. The second initiative pertains to the shortening of Canada's standard securities settlement cycle from transaction date (T) plus two business days, commonly referred to as T+2, to T+1. Originally planned for launch in the second half of 2023, the PTM implementation has been postponed until after the T+1 goes live on May 27, 2024. Additionally, several CCPs plan to further outsource and transition to cloud, concentrating risk on a small set of cloud service providers. The G7 revised a set of guidelines for third-party cyber risk management in 2022, providing authorities with a framework for informing public policy, and regulatory and supervisory efforts.[13]

CPP margining requirements may amplify financial stress. Concerns over the procyclical nature of CCP margining requirements and their potential to amplify stress have arisen these past few years. These concerns were prompted by market volatility during the pandemic and recent events in commodity and fixed-income markets following the Russian invasion of Ukraine and the failures of Silicon Valley Bank and Credit Suisse. Several initiatives are underway to address this vulnerability. Domestically, Canadian CCPs are required[14] to regularly review and improve, as needed, their margining models to ensure they remain resilient during periods of extreme volatility.[15] In North America, the shortening of the standard settlement cycle may help to reduce counterparty risk in the system and, in turn, collateral requirements for cash market CCPs. Internationally, the BCBS-CPMI-IOSCO published their final report on the review of CCP margining practices in September 2022.[16] Further work is ongoing to address margin procyclicality, particularly regarding the transparency of CCP margining models and the design of anti-procyclicality measures.

Overall, vulnerabilities associated with central clearing are considered low. CCPs have demonstrated resilience during recent market stress events. However, further investigation through international work is necessary to understand their potential to amplify stress through their margining practices. The CDS PTM and T+1 initiatives represent significant system and process changes that require smooth implementation to minimize disruption to securities markets.

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[13] See G7 Fundamental Elements for Third Party Cyber Risk Management in the Financial Sector.

[14] Regulated clearing agencies in Canada are subject to National Instrument 24-102 *Clearing Agency Requirements*.

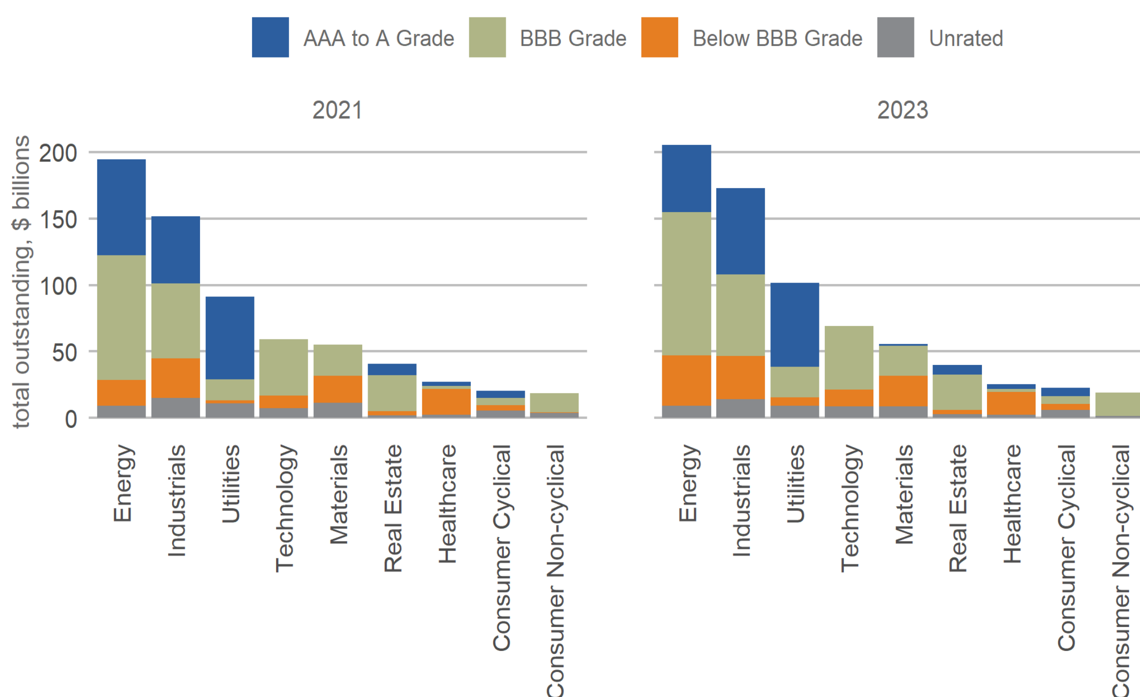
[15] These changes can also help ensure resources collected from participants are more stable through the cycle.

[16] See BCBS-CPMI-IOSCO's Review of margining practices.

Corporate Bond Market

The overall credit quality profile of outstanding Canadian non-financial corporate (NFC) bonds declined slightly in recent years. Relative to 2021, NFCs in several sectors have taken on more high-yield debt. The share of AAA- to A-rated bonds has declined relative to BBB-rated bonds and high-yield bonds (rated below BBB), particularly in the energy sector. Nearly half of outstanding NFC bonds were issued in international markets, with one-third graded as high yield. Approximately 90% of all high-yield NFC bonds were issued in international markets in recent years.[17]

Figure 5 – Non-financial corporate bonds outstanding by sector and rating

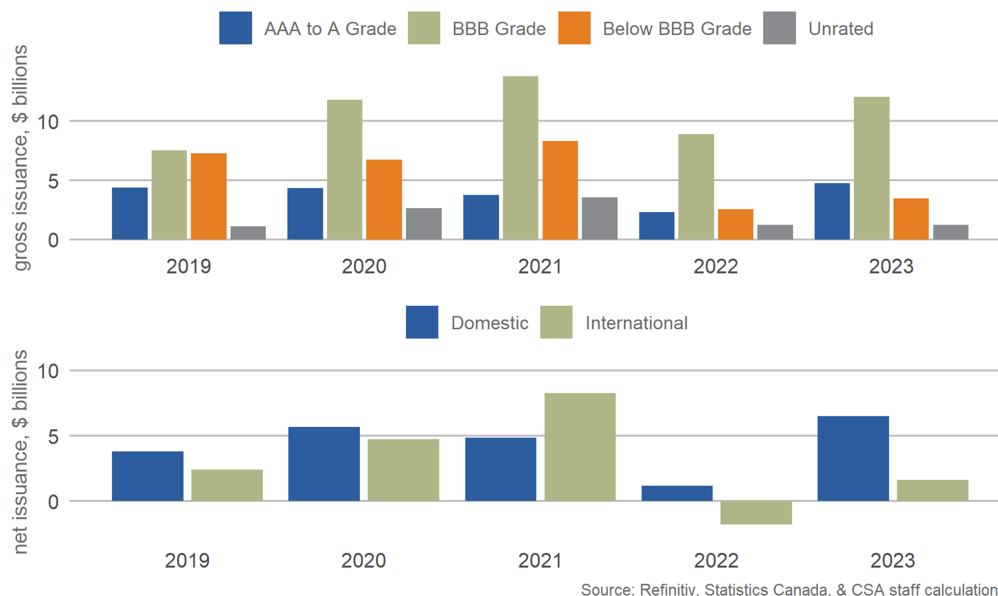


Source: Refinitiv, Statistics Canada, & CSA staff calculations.

In 2023, NFCs issued bonds with higher credit ratings and relied less on international markets than in previous years. In 2022, following a year of economic and market exuberance with low rates, lending conditions reversed due to rising inflation and rapid monetary tightening, leading businesses to withdraw from debt markets. Despite persistent inflation, the policy rate stabilized in 2023 with fewer and smaller hikes. As refinancing needs grew, gross bond issuance resumed, but to a lesser extent in high-yield markets. While there was a rebound in net issuance from 2022 in international markets, amounts remained relatively small compared to previous years, notably 2021.

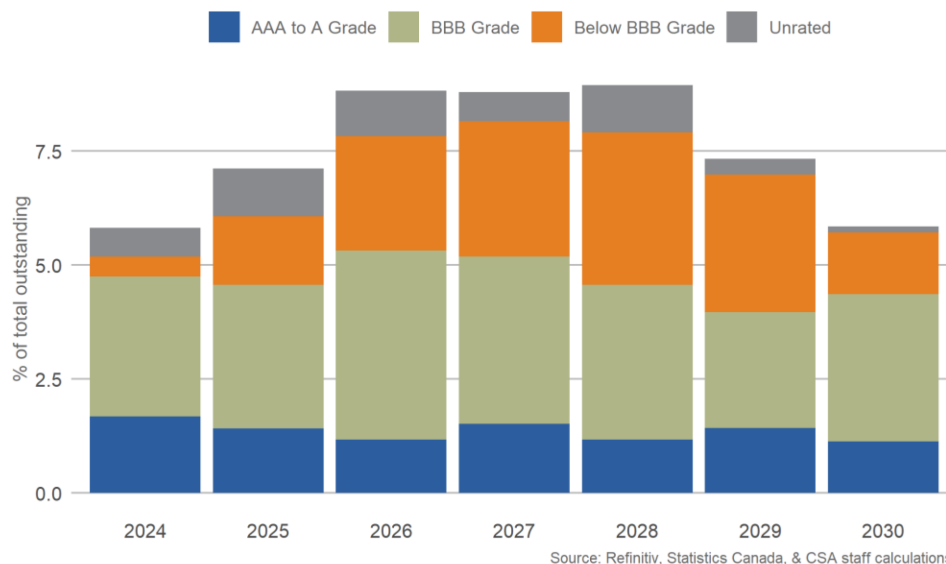
[17] Statistics in the Corporate Bond Debt section of the report are calculated by OSC staff based on data from Refinitiv and Statistics Canada, unless otherwise noted.

Figure 6 – Non-financial corporate bonds: gross issuance by rating and net issuance by market



The maturity profile of Canadian NFC bonds does not indicate high rollover risk for NFCs in the coming years. Over the next three years, 22% of outstanding NFC bonds are set to mature. Investment-grade bonds have a diversified maturity profile without abrupt periods of high or low maturing amounts while high-yield bond maturities are more concentrated in the 3- to 5-year range, consistent with higher-cost debt. In recent years, the maturity profile of Canadian financial bonds has become slightly less concentrated in the 3-year range, accounting for 48% of outstanding in 2023, as compared to 52% in 2019.[18] Amounts set to mature beyond the 3-year range decrease gradually thereafter.

Figure 7 – Maturity profile of outstanding non-financial corporate bonds



[18] As at December 31, 2023, which is compared to the same metric calculated as at December 31, 2019.

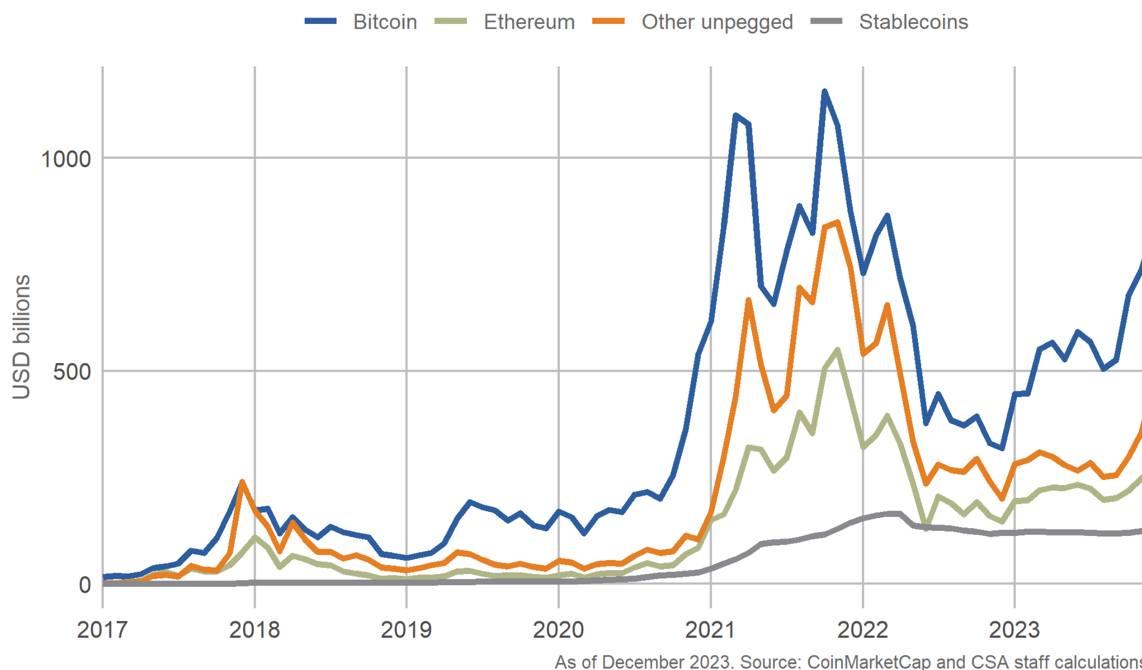
In the event of future short-term issues with access to market-based financing, NFCs' flexible capital structure would provide stability. In 2022, a large share of the NFC sector withdrew from market-based financing amid rising interest rates and uncertainty about their long-term path, indicating a level of flexibility in the overall capital structure of NFCs.

Crypto Asset Market

The crypto asset market remains volatile and unstable. While the market capitalization of this market has grown in 2023, it remains well below the highs reached in 2021. Since 2022, several entities have failed, including Terra Voyager, Three Arrows Capital, Babel Finance, Celsius, FTX, Core Scientific, and Genesis Global Holdco. More recently, the failure of Silicon Valley Bank in March 2023 put pressure on the secondary market trading value of Circle's USD Coin, causing a momentarily loss of its peg to the US dollar.

As of December 2023, the global market capitalization of crypto assets stands at US$1.7 trillion, marking a 116% growth since December 2022. Bitcoin maintains its status as the largest crypto asset in terms of capitalization, representing approximately half of the crypto market. The market capitalization of value-referenced crypto assets (VRCAs), commonly known as stablecoins, now amounts to US$125 billion, representing 7% of the total market capitalization. Additionally, the DeFi market, not accounted for in these figures, boasts a market capitalization of around US$77 billion.[19,20]

Figure 8 – Crypto assets by market capitalization



Vulnerabilities in the crypto asset market primarily stem from interconnectedness, funding liquidity and redemption risks, and operational risks. In terms of interconnectedness, the events of 2022, notably the collapse of FTX and Terra, have

[19] See CoinGecko's Top 100 DeFi Coins by Market Capitalization.

[20] DeFi, or Decentralized Finance, commonly refers to the provision of financial products, services, arrangements, and activities that use distributed ledger or blockchain technologies, including self-executing code referred to as "smart contracts".

underscored the strong interconnection among crypto sector players, leading to loss of confidence and widespread withdrawals.

Currently, the links between the crypto asset sector and the traditional financial sector seems limited. Apart from a few US regional banks, recent failures have not materially impacted the traditional financial sector. Regarding retail investors, approximately 10% of Canadians own crypto assets or crypto funds, with exposures typically being relatively small, according to an OSC survey. Specifically, 61% of crypto assets owners and 51% of crypto funds owners reported holdings under $20,000.[21]

VRCAs can face funding or liquidity risks. VRCAs, or stablecoins, aim to maintain a stable value by referencing a fiat currency or other value or right. However, doubts about a VRCA's reserves may prompt holders of that VRCA to seek to withdraw funds, leading to the trading price decoupling from its pegged value and potentially affecting traditional financial institutions. For example, the secondary market trading value of Circle's USD Coin deviated from its peg to the US dollar when it was revealed that Circle held US$3.3 billion of its US$40 billion of USD Coin reserves at the collapsed lender Silicon Valley Bank.

The crypto asset sector is highly vulnerable to operational risks, including cyber and governance risks. In 2022, an estimated US$3.8 billion was pilfered from cryptocurrency businesses, primarily targeting DeFi protocols, marking the highest annual amount on record.[22]

Consumer protection remains an important point of focus for regulators. The CSA has been working proactively to implement necessary safeguards, notably regarding crypto asset trading platforms (CTPs).[23] Platforms facilitating crypto asset trading must comply with requirements regarding their operations, internal controls, and client disclosure. Presently, 12 platforms are registered, and 10 platforms have provided pre-registration undertakings to the CSA.[24] Further, the CSA has recently published CSA Staff Notice 21-333 *Crypto Asset Trading Platforms: Terms and Conditions for Trading Value-Referenced Crypto Assets with Clients*.[25] This staff notice outlines the terms and conditions for CTPs that continue allowing Canadian

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[21] See OSC's Crypto Asset Survey. Note that the investment fund crypto asset industry in Canada is small (approximatively $2 billion) and does not pose a systemic risk.

[22] See Chainalysis' The 2023 Crypto Crime Report.

[23] For more information about when and in what circumstances a CTP may be subject to securities legislation, please refer to CSA Staff Notice 21-327 *Guidance on the Application of Securities Legislation to Entities Facilitating the Trading of Crypto Assets* and Joint CSA/IIROC Staff Notice 21-329 *Guidance for Crypto-Asset Trading Platforms: Compliance with Regulatory Requirements*.

[24] See CSA's Crypto Trading Platforms Authorized to Do Business with Canadians and Crypto Trading Platforms That Have Filed Pre-Registration Undertakings.

[25] See CSA Staff Notice 21-333 *Crypto Asset Trading Platforms: Terms and Conditions for Trading Value-Referenced Crypto Assets with Clients*.

clients to purchase or deposit fiat-backed crypto assets.[26] This is an interim approach only, as the CSA continues its work in this area.

Collaborating closely with other regulators, the CSA continues to examine any potential supervisory gaps and risks, particularly those related to VRCAs. Internationally, the AMF and OSC contribute to IOSCO's Fintech Task Force (FTF), that is responsible for developing and implementing the regulatory agenda for fintech and the crypto asset ecosystem. In 2023, IOSCO, through the FTF, published policy recommendations for crypto and digital asset markets.[27] In 2024, IOSCO will begin developing a program to monitor and promote the adoption and implementation of these recommendations by member jurisdictions in a timely manner.

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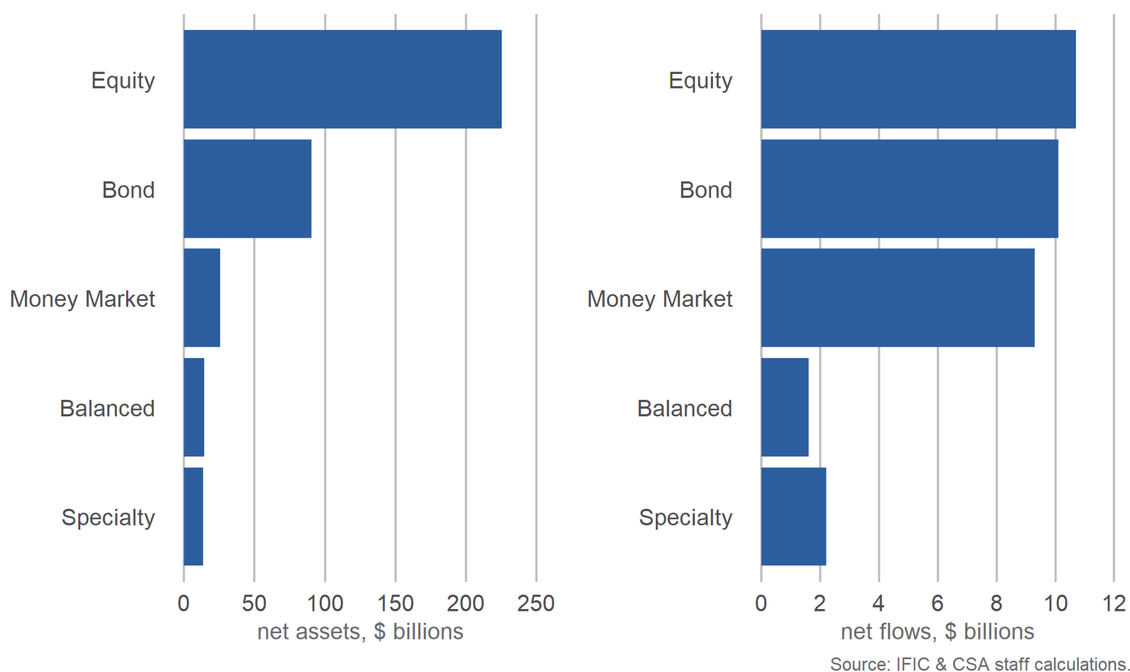
[26] Fiat-backed crypto assets are VRCAs that seek to replicate the value of a single fiat currency where the issuer sets aside an adequate reserve of assets denominated in the fiat currency. See CSA Staff Notice 21-333 *Crypto Asset Trading Platforms: Terms and Conditions for Trading Value-Referenced Crypto Assets with Clients*.

[27] See IOSCO's Policy Recommendations for Crypto and Digital Asset Markets.

Exchange-Traded Funds

Supported by positive stock market returns, Canadian exchange-traded funds (ETFs) experienced significant growth in assets under management in 2023. As of November 2023, Canadian ETF net assets totalled $369.3 billion, marking a $56 billion increase since December 2022.[28] The ETF market has continued to attract new investments, registering important net inflows this year, while mutual funds experienced net outflows over the same period. All broad ETF asset classes experienced net inflows (see Figure 9). Of note is the growth in money market ETFs, particularly those investing in deposit accounts. The ETF market has grown significantly in recent years, now representing approximately 13% of all publicly offered investment fund net assets in Canada.[29]

Figure 9 – ETF net assets and net flows, year-to-date as of November 2023



Source: IFIC & CSA staff calculations.

From a financial stability perspective, a potential concern is the ETF market's resilience in the event of a large financial shock. Notably, the ETF market could potentially experience impaired primary and secondary market liquidity, for instance wider bid-ask spreads and reduced transaction levels. Further, ETF transaction prices in secondary markets may significantly deviate from the value of their underlying assets, represented by their net asset values (NAV). These concerns are more pronounced for ETFs that invest in less liquid assets, such as certain corporate bonds or other fixed-income instruments that do not typically trade on centralized marketplaces.

The ETF market exhibits several inherent structural elements that enhance its resilience, even in times of stress. For instance, authorized dealers in Canada, which are entities that

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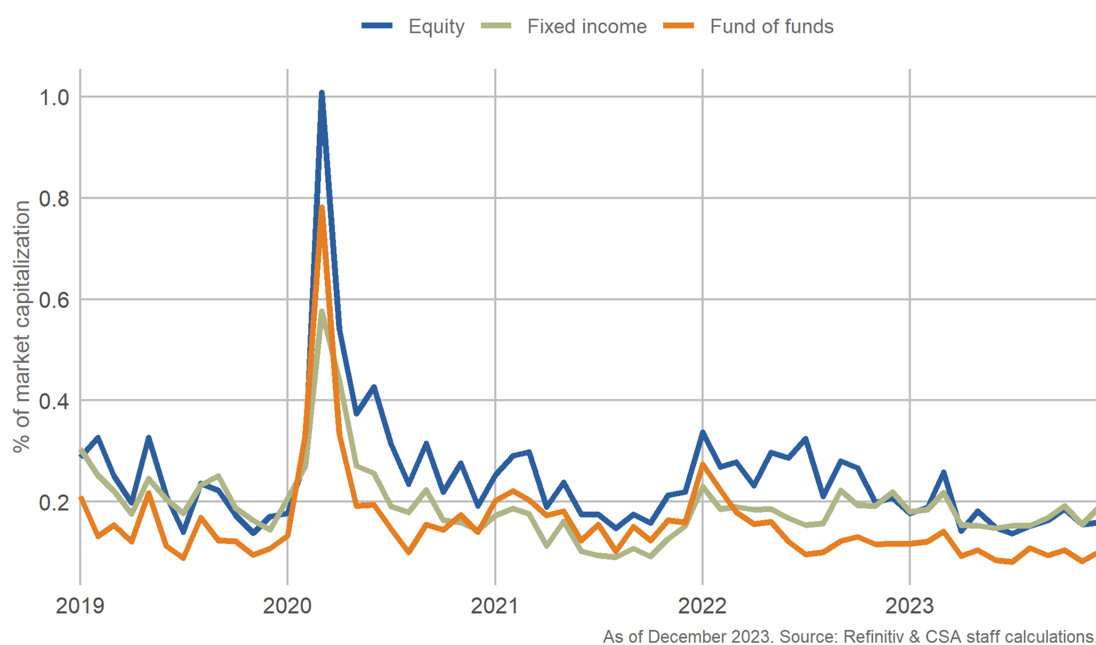
[28] See IFIC Monthly Investment Fund Statistics – November 2023.

[29] See OSC's Investment Fund Survey. Stand-alone prospectus funds only. As of 2022.

can transact directly with ETF sponsors, play a critical role within the ETF ecosystem. In situations where the market price of an ETF deviates from the NAV, authorized dealers are incentivized to buy or sell this ETF on the secondary market to take advantage of potential arbitrage opportunities. Further, designated market makers support orderly market trading of ETFs on marketplaces by promoting two-way market liquidity through the posting of bid and ask limit orders.

Recent episodes of financial stress have demonstrated the resilience of the Canadian ETF market. Notably, the ETF market experienced significant increases in trading volumes following the COVID-19 financial shock, as well as heightened overall creation and redemption activity, including in fixed-income ETFs. However, similar to trends observed in foreign markets, deviations of market prices from NAV increased markedly, particularly for fixed-income ETFs. In our assessment, these deviations were likely attributable to, among other factors, uncertainty surrounding the valuation of bond holdings when the cash bond markets were under stress.[30] Since the COVID-19 shock, the ETF market has continued to function well overall despite significant market volatility. International evidence also indicates that the ETF structure has generally remained resilient during historical stress events.[31]

Figure 10 – ETF daily turnover



Another trend that the SRC is monitoring is the growth of active ETFs. These ETFs, in contrast to passive ETFs that replicate an index, are associated with portfolio managers working under a discretionary mandate to add or reduce positions in individual securities. The

[30] For a more complete discussion of factors that may have contributed to deviations of market prices from NAV, see: IOSCO's Exchange Traded Funds Thematic Note – Findings and Observations during COVID-19 induced market stresses.

[31] See IOSCO's Good Practices Relating to the Implementation of the IOSCO Principles for Exchange Traded Funds.

share of active ETFs has grown and now represents approximately 12% of the Canadian ETF market in terms of net assets.[32] Some active ETF managers do not disclose their ETF portfolio holdings to the public on a daily basis, potentially to safeguard the confidentiality of their investment strategies.[33] When the content of an ETF portfolio is disclosed frequently and publicly, market participants other than authorized dealers may also potentially play a role in reducing any price deviations from NAV and narrowing bid-ask spreads. According to preliminary analysis by the SRC, active ETFs, including those that do not publicly disclose their holdings daily, appear to have demonstrated resilience during recent episodes of stress, although they sometimes exhibited somewhat wider bid-ask spreads and attracted relatively fewer transactions than other ETFs.

In 2023, the CSA launched a review of ETFs.[34] The CSA is currently assessing whether the current regulations applicable to ETFs remain appropriate, focusing on ETF-specific features such as secondary market trading, unit creation and redemption by authorized dealers, and the arbitrage mechanism that helps maintain the market price of an ETF close to the value of its underlying portfolio.

The SRC will continue to monitor ETF resilience. We will focus our monitoring work on ETFs that invest in less-liquid assets and that employ actively managed strategies.

[32] According to the OSC Investment Fund Survey. ETFs are considered active or actively managed if they have a discretionary portfolio allocation methodology. Active ETFs do not track an index or follow a rules-based portfolio allocation methodology. This analysis focusses on ETFs only, excluding mutual funds with an ETF series. Data as of December 2022.

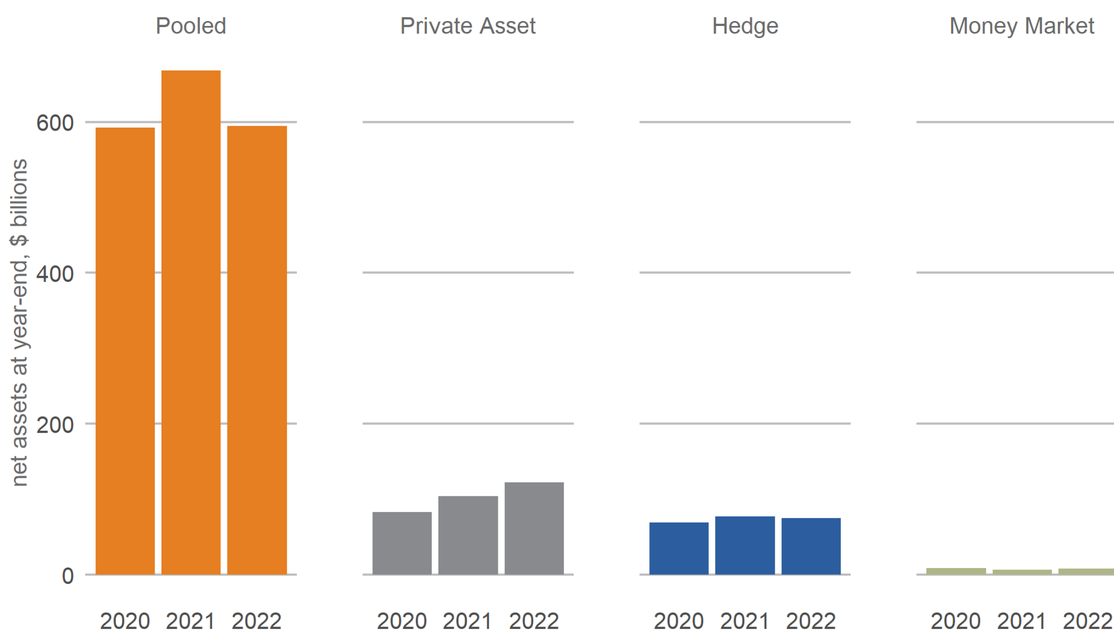
[33] According to the OSC Investment Fund Survey, approximately 55% of active ETFs do not disclose their portfolio holdings to the public on the ETF's (or its manager's) website before the opening of trading on the primary listing exchange for the ETF's securities. This analysis focusses on ETFs only, excluding mutual funds with an ETF series. Data as of December 2022.

[34] See Canadian securities regulators initiate review of exchange-traded funds.

Prospectus-Exempt Funds

Prospectus-exempt fund net assets declined in 2022. According to data from the OSC Investment Fund Survey for year-end 2022, net assets of prospectus-exempt funds decreased in 2022, with pooled funds leading the downturn, mirroring trends observed among mutual funds and ETFs. The decrease in the net assets of pooled funds is explained by falling valuations for equity and fixed-income holdings, as well as net unitholder redemptions. In contrast, exempt funds that invest in private assets, such as private equity, private debt, infrastructure, and real estate, continued to benefit from robust subscriptions and growth.

Figure 11 – Exempt fund size as of year-end[35]



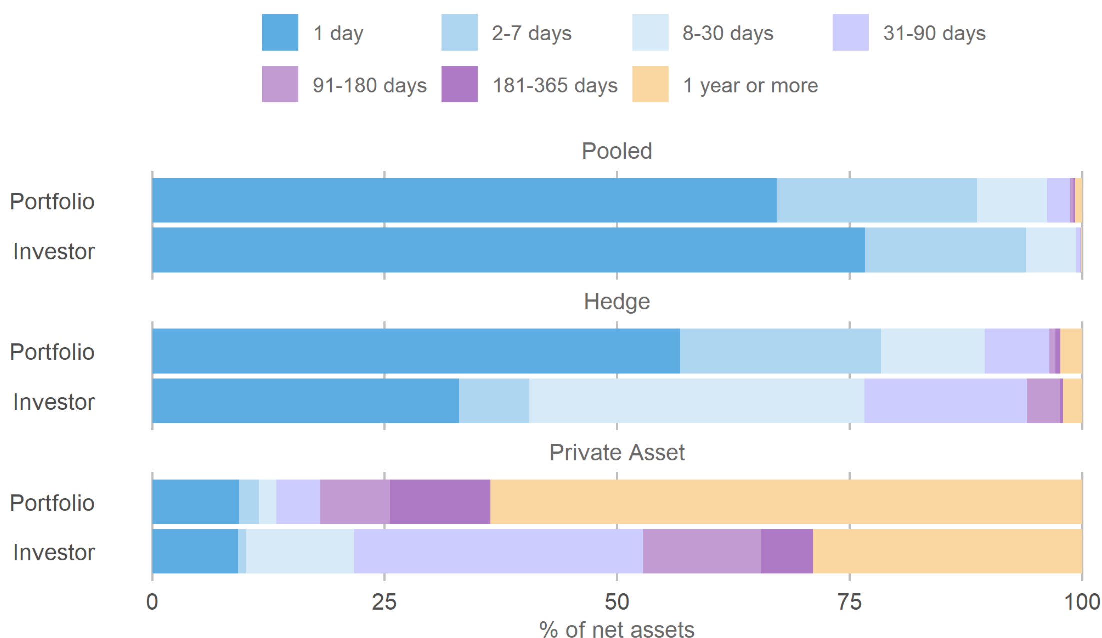
Similar to prospectus-qualified mutual funds, exempt funds face liquidity risks. Funds that experience significant investor outflows may struggle to meet unitholder redemptions, especially if their underlying holdings are illiquid. While changes in investor sentiment can drive inflows and outflows across all investment funds, the risk from investors outflows is potentially greater for exempt funds that invest in private assets and that rely on institutional investors which can withdraw large amounts quickly.

Exempt funds are not subject to National Instrument 81-102 *Investment Funds* and the daily redemption requirements that may apply to mutual funds. Exempt funds operate with a broader toolset to manage unitholder redemptions, including redemption notice periods. For example, an investment fund manager may require one-month's notice or longer before investors can redeem their hedge fund units. These redemption terms serve to align the pace of unit redemptions with the liquidity profile of a fund's portfolio.

[35] Private asset funds are reported as "Other, illiquid" and "Flow-through LP" exempt funds in the OSC Investment Fund Survey.

Overall, pooled fund and hedge fund liquidity risks are well managed as their redemption terms broadly match the liquidity of their underlying portfolios. In aggregate, exempt funds that invest in private assets – such as private equity, private debt, or real estate – report liquidity mismatches. This situation arises when investors can withdraw funds more quickly than the underlying portfolio can be sold (see Figure 12, bottom two rows). As a result, in the face of a surge in investor withdrawals, these exempt funds may need to suspend or restrict redemptions to ensure orderly fulfillment of redemption payments.

Figure 12 – Exempt fund liquidity as of year-end 2022[36]



Source: OSC Investment Fund Survey & CSA staff calculations.

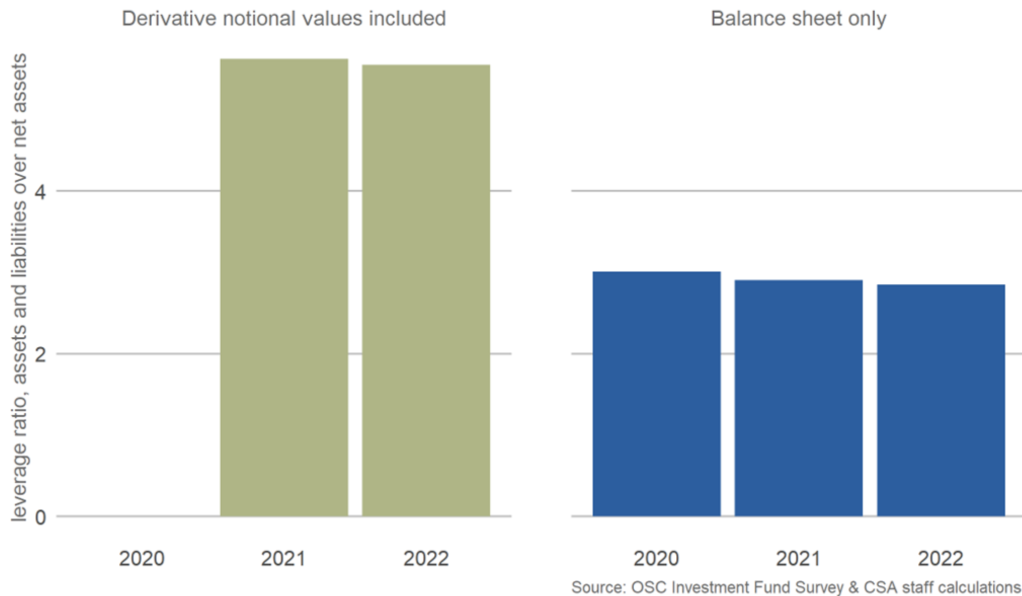
Exempt fund leverage can present risks to counterparties and the broader financial system. The 2021 collapse of Archegos Capital Management, a US family office distinct from a hedge fund, highlighted the dangers presented by leverage undertaken via derivatives markets. These risks may prove challenging for other market participants to identify or measure.

Exempt funds do not face the same borrowing restrictions as mutual funds regulated under National Instrument 81-102 *Investment Funds*. Given the absence of borrowing restrictions, exempt funds can employ significant leverage. However, in practice, exempt fund leverage is limited. Hedge funds tend to employ more leverage than other exempt funds, but overall, their leverage usage is relatively modest and has declined since 2020. When synthetic leverage undertaken via derivatives markets is included, overall hedge fund leverage is

[36] Portfolio liquidity is the estimated time it would take a fund to sell its underlying holdings under normal market conditions, excluding the settlement period. Investor liquidity is the shortest amount of time it would take a fund's investors to sell all their units based on the fund's redemption terms, excluding the settlement period. For mutual funds subject to National Instrument 81-102 *Investment Funds*, units may be redeemed in one day. For exempt funds with redemption notice periods, it could take a month or a quarter for investors to redeem all their units.

somewhat higher, but most of the notional derivatives exposure comes from hedging products such as lower-risk currency and interest rate derivatives (see Figure 13).

Figure 13 – Hedge fund leverage as of year-end[37]



The introduction of the OSC's Investment Fund Survey (IFS) has helped address data gaps for investment funds, especially prospectus-exempt funds. The IFS provides critical information on leverage, asset class exposure, ownership, and fund liquidity, among other areas. The IFS data has been shared with other CSA jurisdictions and the Bank of Canada to ensure that investment fund risk-taking is visible to multiple federal and provincial regulatory agencies concerned with investment funds and systemic risk. High-level IFS summary data is also publicly available via a Tableau dashboard.[38]

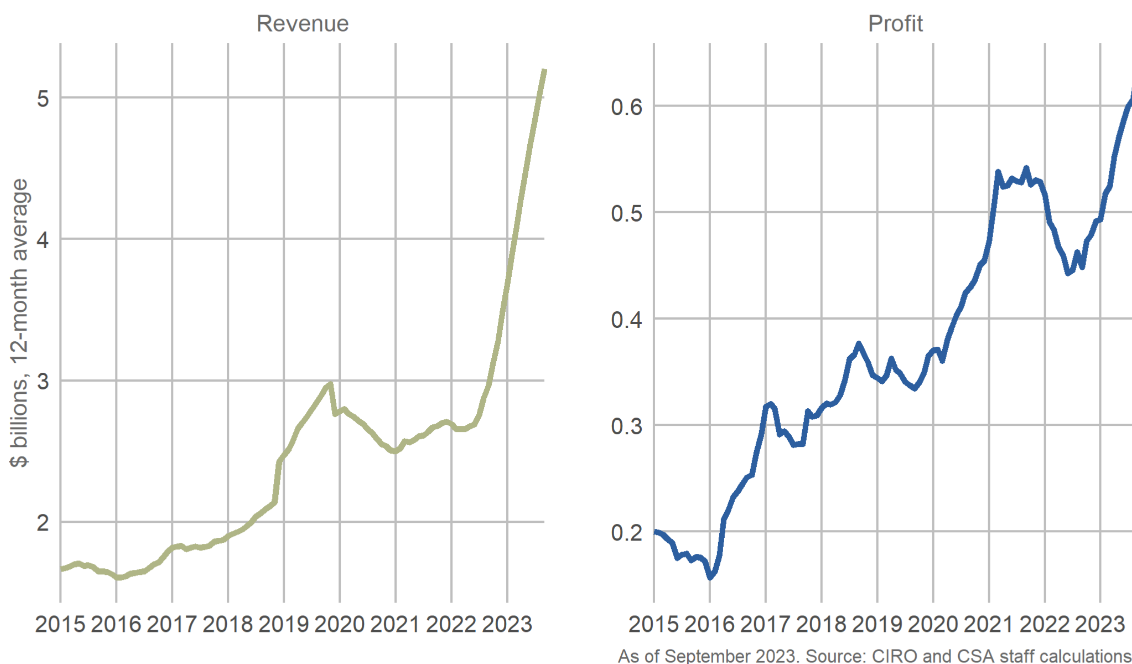
[37] Notional derivatives exposure data is not available for Funds of Funds in 2020, which explains why the first bar on the left-hand side is missing.

[38] See OSC's Investment Fund Survey.

Investment Dealers

Higher net interest revenue has contributed to increased revenue and profitability of Canadian Investment Regulatory Organization (CIRO)[39] investment dealers over the last several quarters. Fees revenue has remained relatively stable while commission and investment banking revenue are below 2021 levels. The industry continues to grow in terms of number of firms and employees.

Figure 14 – Revenue and profit levels of CIRO investment dealers



As of September 2023. Source: CIRO and CSA staff calculations.

The primary vulnerability from investment dealers is the impact on financial markets from the failure of a large dealer. The high degree of interconnection between large dealers and other market participants could potentially have broad repercussions. Measures to prevent failures are in place, however, such as in-depth oversight of the investment dealers by CIRO and monitoring of the consolidated financial position of parent financial institutions by OSFI or provincial prudential regulators. Federally and provincially regulated financial institutions with dealer subsidiaries are also subject to a resolution authority, like the CDIC. Disaster recovery and business continuity plans limit the impact and likelihood of failure, while the Canadian Investor Protection Fund protects investor assets.[40] Further, the CDCC has implemented a segregation and portability regime, allowing for the transfer of client futures positions and related collateral from a defaulting market participant to a replacement participant during an insolvency process, enhancing financial stability.

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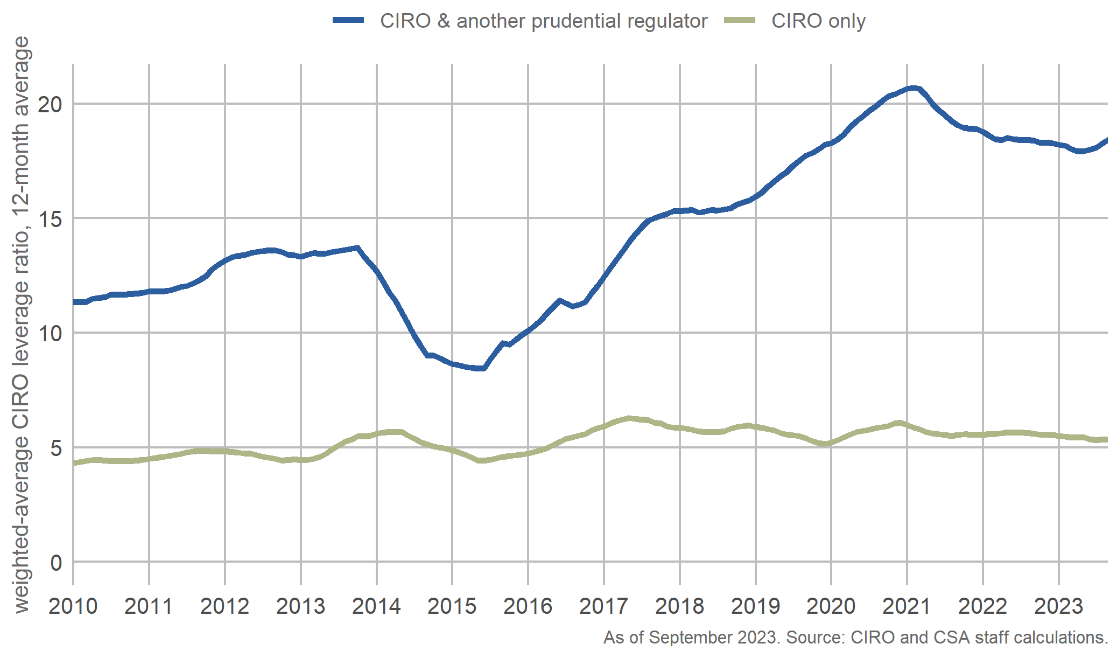
[39] IIROC and the MFDA amalgamated to continue as CIRO, effective January 1, 2023.

[40] See National Instrument 21-101 *Marketplace Operation*, Section 12.4.1, and Investment Dealer and Partially Consolidated Rules, Rule 4700, Part A.

Greater dealer leverage could increase vulnerabilities and potential repercussions to lenders and other counterparties in the event of a failure. The largest Canadian dealers are owned by deposit-taking institutions overseen by OSFI or provincial regulators that provide prudential oversight of their consolidated balance sheets. The consolidated balance sheet leverage of deposit-taking institutions has remained relatively stable since 2005. However, the leverage of their dealer subsidiaries has risen substantially between 2015 and early 2021 before declining in recent years. Dealers not owned by deposit-taking institutions are not subject to leverage or capital-ratio limits imposed by OSFI or provincial prudential regulators, but their leverage ratios are monitored by CIRO and remain low (see Figure 15).

Figure 15 – Canadian investment dealer leverage based on supervisory authorities

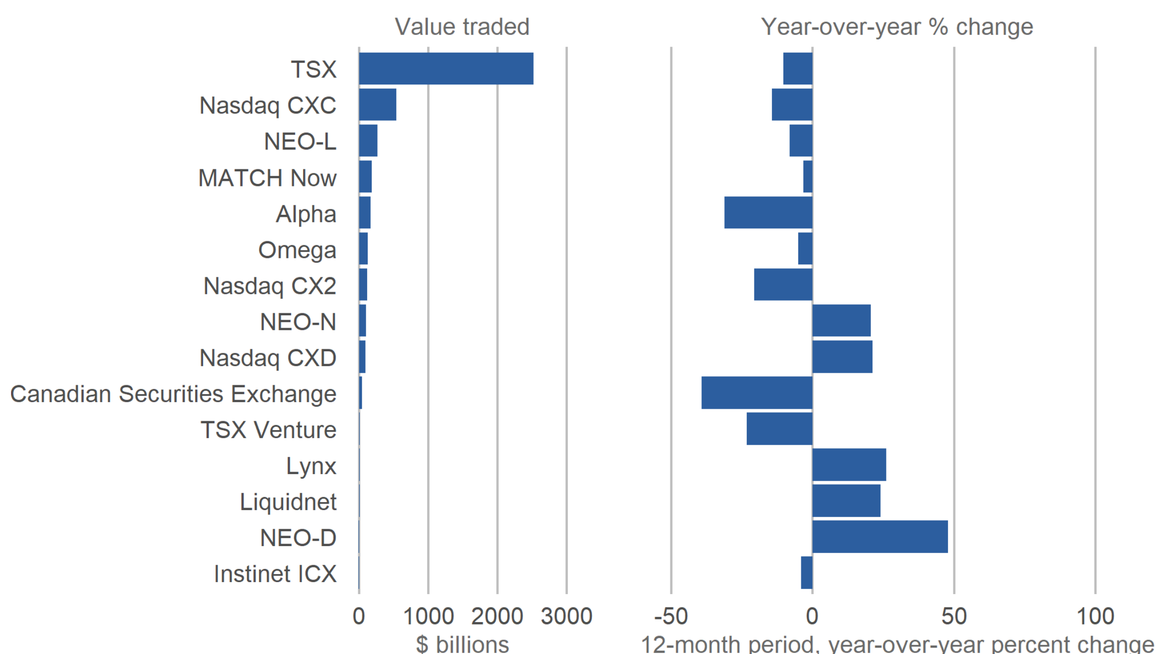


Other vulnerabilities to investment dealers include cyber threats, which remain a constant issue for dealers and other market participants. Investment dealers will need to continue investing in cybersecurity to keep up with technological advancements.

Marketplaces

The total value traded in Canada's equity marketplaces for the 12-month period ending December 31, 2023 was $4.2 trillion, marking a 10% decline from the previous 12-month period. The top five equity marketplaces based on value traded were TSX, with by far the largest market share, followed by Nasdaq CXC, NEO-L, MATCH Now, and Alpha. Dark markets, namely NEO-D and Nasdaq CXD saw strong growth for the second year in a row. TMX Group exchanges (i.e., Alpha, TSX, TSX Venture) all saw a decline with TSX Venture and Alpha exchanges seeing declines of 23% and 31%, respectively, of the value traded compared to the preceding 12 months.

Figure 16 – Value traded and year-over-year percent change on equity marketplaces for the 12-month period ending December 2023



Source: CSA Market Analysis Platform, CIRO & CSA staff calculations.

A major disruption to a dominant marketplace with a central role in data provision can have important impacts on market participants and overall equity trading. All marketplaces can experience shutdowns, but those affecting the TMX Group exchanges, because of their centrality in Canadian market structure, may have greater impacts.

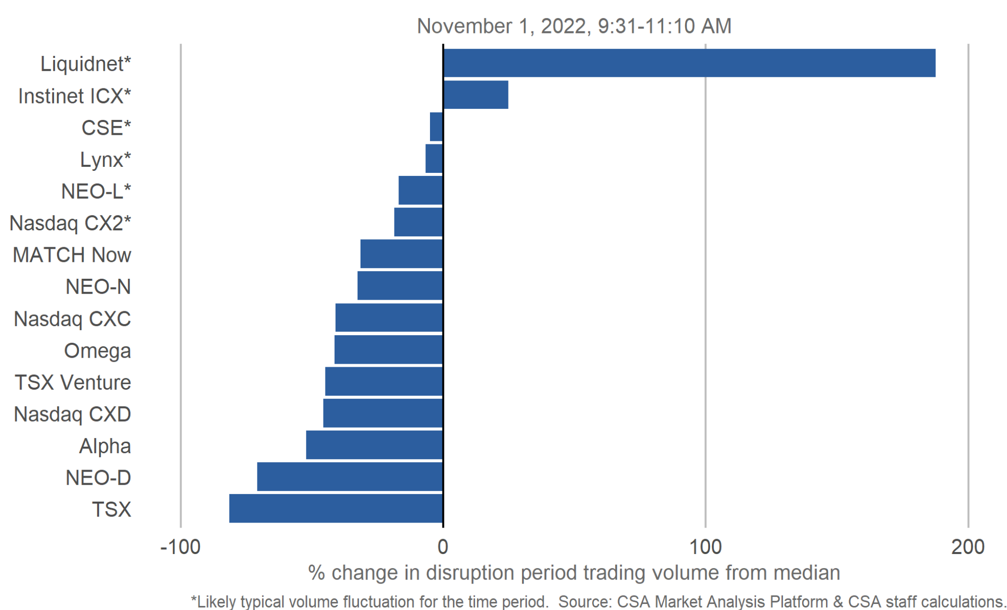
Marketplace disruptions in Canada have been rare and brief events. All Canadian marketplaces are required under National Instrument 21-101 *Marketplace Operation* to maintain their systems, have backup systems, conduct vulnerability assessments and system reviews, provide testing platforms for external interfaces, and have business continuity plans.[41] These requirements, and ongoing investments from marketplaces to enhance the reliability of

[41] See National Instrument 21-101 *Marketplace Operation*.

their systems, have helped ensure that disruptions have remained rare and brief events. For instance, the TMX Group exchanges uptimes have exceeded 99.9%.

While major disruption risks are low and well-managed, there are some uncertainties regarding the impacts and extent of trade migration to other marketplaces during such events. During a TMX Group exchanges shutdown, dealers and other market participants may be unable or unwilling to re-route their order flow to other venues. While dealers have connectivity and access to all protected marketplaces and the vast majority of unprotected marketplaces as per best execution requirements, they tend to rely primarily on TMX Group for real-time market data in their dealings with retail clients.[42] Therefore, a disruption to TMX Group exchanges may affect access to information for some market participants and investors, resulting in an inability to effectively continue trading on other marketplaces that remain operational. This concern could be significant for retail investors and their advisors who may only have access to TMX market data.

Figure 17 – Impact of 2022 TMX shutdown on trade volume on equity marketplaces[43]



To illustrate the impacts of outages on other marketplaces, we analyzed the TMX outage on November 1, 2022.[44] We examined the impact of this outage on trading volume for non-interlisted equities and exchange-traded debentures by comparing the trading volume during

[42] A marketplace is protected if it meets the market share threshold of 2.5%, and/or the orders are for securities that are listed by and traded on that marketplace. If the marketplace meets either of these two criteria but does not provide automated trading functionality and/or does not display orders, then it is unprotected. Marketplace participants are not required to connect to unprotected marketplaces, however CIRO requirements for best execution do require a dealer to consider unprotected marketplaces based on a number of criteria.

[43] Prior to the disruption, CSE 2 was launched on October 24, 2022, and had only been operating for five trading days. Therefore, it was excluded from this analysis.

[44] For more details on this incident, see the TMX incident report.

the disruption period to the trading volumes during the same window of time on prior days. During the TMX disruption on November 1, 2022, from 9:31 AM to 11:10 AM, there was a 48% decrease in trading volume on all equity marketplaces, in aggregate, compared to the median trading volume during the same window of time on the 100 trading days prior to the outage.

There was strong evidence of a decrease in trading volume on most equity marketplaces during the 2022 outage. Rather than seeing an uptick or stabilization in trading activity on other marketplaces that may have benefited from the TMX outage, there was a substantial decrease in trading activity in all but a few marketplaces.[45]

Overall, the impact of the November 2022 outage on Canadian equity trading appears limited. The outage was brief, and trading recovered quickly once the marketplaces were operational. A more comprehensive assessment could, however, include other factors such as the impacts on interconnected markets and activities, and opportunity costs for traders that were unable to trade. Nonetheless, in our view, while a potential disruption to marketplaces poses some risk to the equity trading of market participants, in particular if a dominant marketplace is impacted, it does not constitute a systemic or financial stability risk.

At the international level, IOSCO has been examining market outages in various jurisdictions to identify lessons learned and develop guidance to enhance market resilience.[46] OSC and AMF staff shared their experience and provided information on concerns that have been raised in Canada in relation to market outages, the migration of trading to other equity marketplaces, and establishing closing prices. The good practices identified by IOSCO will inform future CSA market policy considerations.

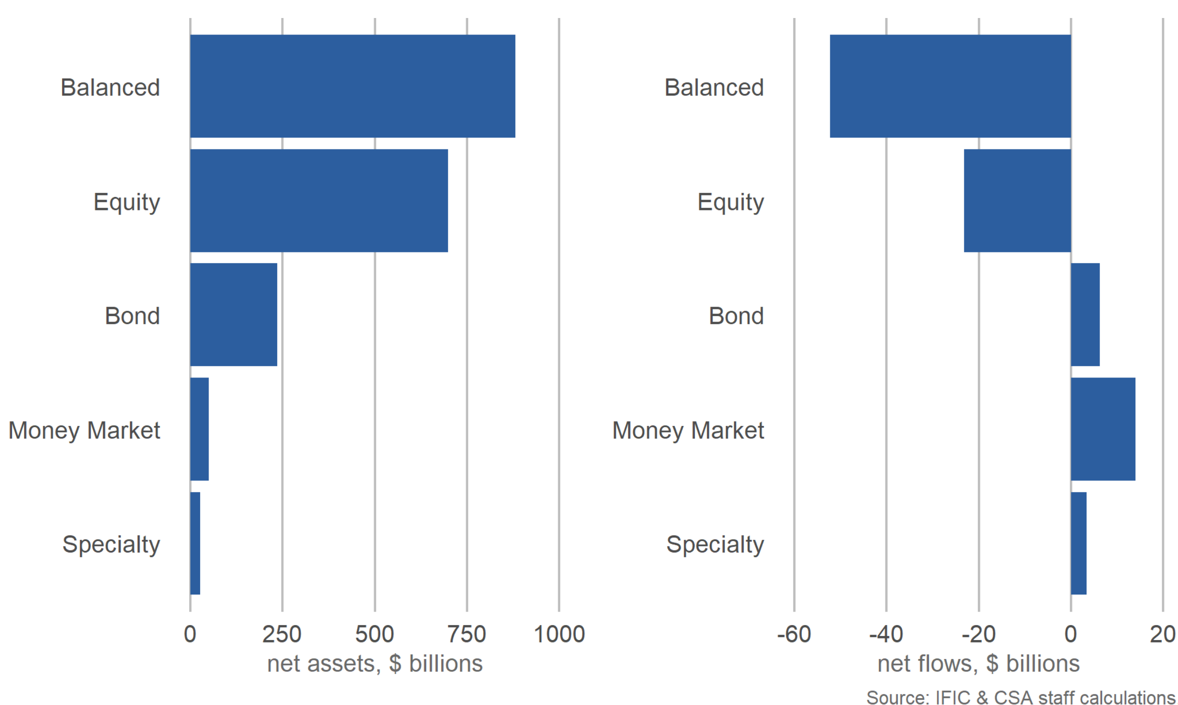
[45] Marketplaces that experienced increases were within normal ranges and, therefore, we cannot conclude that those increases occurred as a result of the outages.

[46] See IOSCO's Consultation Report on Market Outages.

Mutual Funds

Canadian mutual funds have seen their assets under management grow in 2023 despite significant economic headwinds. Fund managers have benefited from a rebound in stock markets as well as more attractive yields in fixed-income markets. Overall, Canadian mutual funds saw their total net assets increase to $1.9 trillion in November 2023, compared to $1.8 trillion in December 2022. They have, however, recorded net outflows since the beginning of the year in a context of an increasingly uncertain economic outlook. Balanced and equity funds in particular faced important net outflows. By contrast, bond and money market funds have experienced inflows since the beginning of the year, reflecting the important rise in yields.

Figure 18 – Mutual funds net assets and net flows, year-to-date as of November 2023



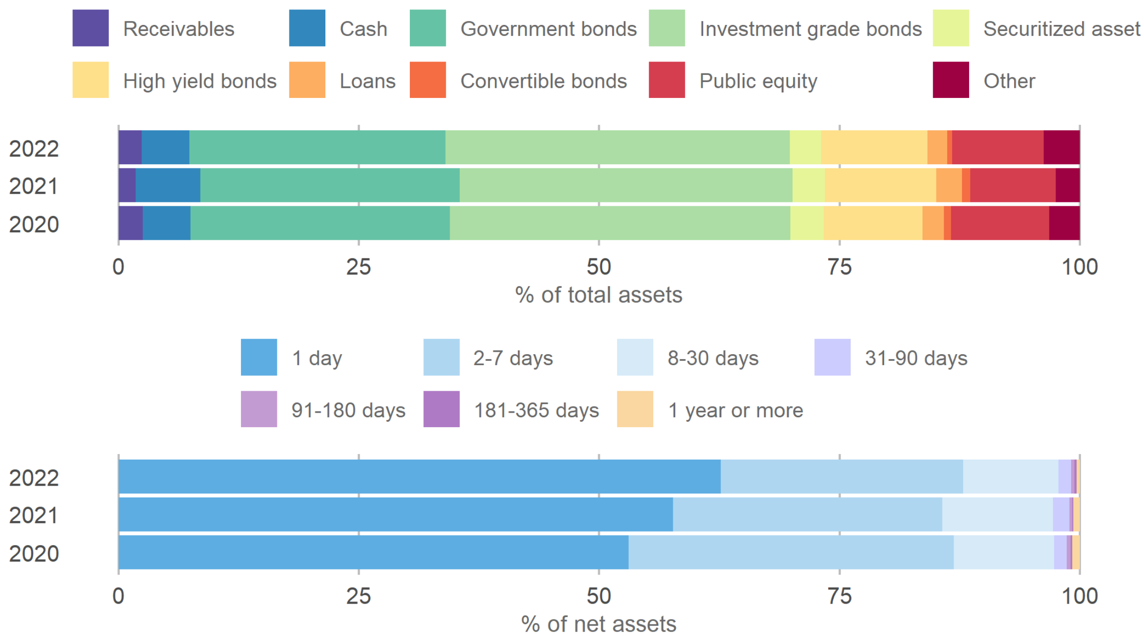
Source: IFIC & CSA staff calculations.

When faced with outflows, mutual fund managers may experience a liquidity mismatch. Specifically, there can be a mismatch between the liquidity of mutual fund units, typically redeemable daily by investors, and the less liquid nature of some underlying assets. This mismatch can pose risks in the unlikely event that a fund would face large redemptions. In an extreme scenario, fund managers may be unable to pay back investors in an orderly manner if underlying assets cannot be sold within a reasonable time frame and at a price that reflects their fundamental value. Faced with large redemptions, fund managers may be forced to sell assets into illiquid markets, which could worsen liquidity conditions.

Overall, our assessment is that the liquidity risk that Canadian mutual funds face is relatively low. This liquidity risk is relevant mainly for fixed-income mutual funds because secondary market liquidity for their fixed-income holdings is typically lower than for stocks. Canadian fixed-income mutual funds, however, have a very stable investor base and adopt conservative portfolio allocation strategies. According to SRC analyses, those mutual funds have limited exposure to corporate bonds that are high yield, have long durations, and are in

currencies other than CAD or USD. They also tend to hold a large proportion of their assets in government bonds, which are typically very liquid. According to the OSC Investment Fund Survey, investment fund managers estimate that approximately 63% of the portfolio of their credit funds can be sold in a day under normal market conditions (see Figure 19).[47] Other types of fixed-income mutual funds would likely hold relatively more liquid assets. Further, almost half of fixed-income mutual fund assets are owned by funds of funds, which invest mainly in other funds and can help manage and absorb outflows.

Figure 19 - Credit mutual funds holdings and investor liquidity



Source: OSC Investment Fund Survey & CSA staff calculations.

Over the years, the CSA has established a regulatory framework that promotes sound liquidity management practices for mutual funds. Pursuant to National Instrument 81-102 *Investment Funds*, which sets the general regulatory framework that applies to Canadian mutual funds, a prospectus mutual fund must not invest more than 10% of its net asset value in illiquid assets. Other elements included in Canadian securities regulation that promote sound liquidity management practices for mutual funds include concentration restrictions in a single investment, leverage restrictions, and an obligation for the fund manager to act in the best interest of the fund. The CSA also published in 2020 CSA Staff Notice 81-333 *Guidance on Effective Liquidity Risk Management for Investment Funds*.

To further examine mutual fund liquidity risks, the SRC is collaborating with other Canadian authorities. In 2023, some SRC members participated in the federal-provincial Systemic Risk Surveillance Committee working group on investment funds, chaired by the Bank of Canada.[48] Members of this sub-group met with and surveyed some large Canadian

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[47] Credit funds refer here to stand-alone mutual funds that invest at least 20% of their holdings in credit assets (including corporate bonds, convertible bonds, securitization, and loans).

[48] See Systemic Risk Surveillance Committee: Terms of Reference.

fund managers regarding their approaches to liquidity risk management and stress testing practices. Overall, all large fund managers have stress testing practices in place to estimate their ability to repay investors in stressed market conditions, although stress testing practices vary.

Fund liquidity risk remains an important focus of international standard-setting bodies, notably of the FSB and IOSCO. In December 2023, the FSB and IOSCO published policies to address vulnerabilities from liquidity mismatch in open-ended funds.[49] The CSA continues to examine the extent to which its regulatory approach aligns with international best practices and is appropriate for the Canadian context.

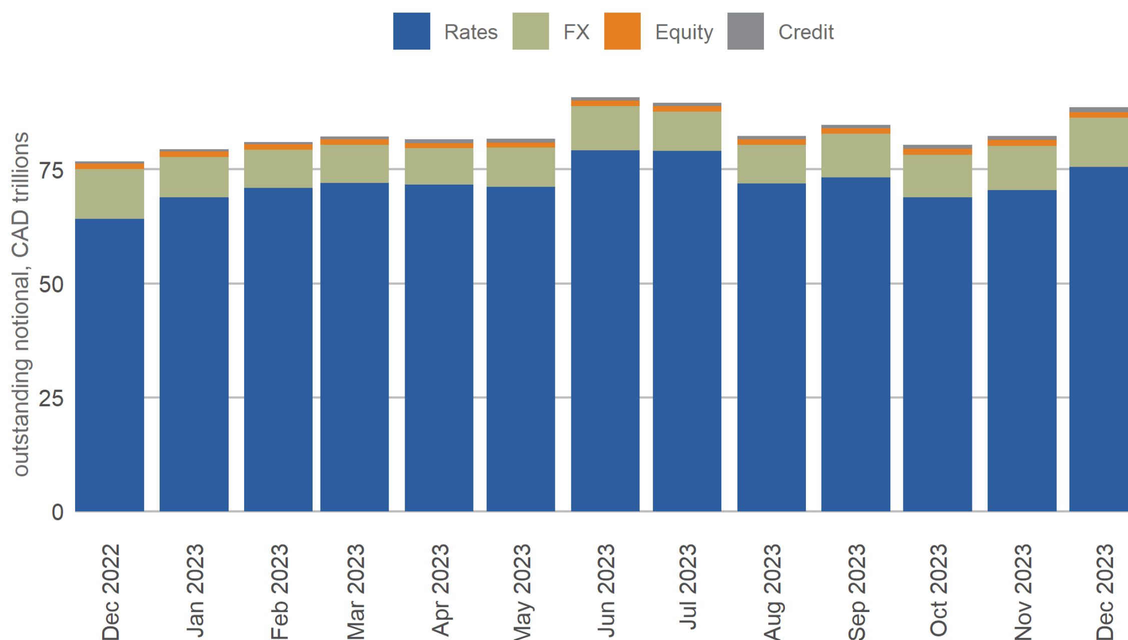
While liquidity risk is relatively low, spikes in liquidity pressure are possible. Given the uncertain economic outlook, the possibility exists that fund redemptions could increase, and that market liquidity could deteriorate. Accordingly, this risk needs to be managed adequately. The SRC will continue monitoring the liquidity profile of mutual funds, focusing on the evolution of fixed-income mutual fund portfolios and changes in investor fund flows.

[49] See FSB and IOSCO publish policies to address vulnerabilities from liquidity mismatch in open-ended funds.

Over-The-Counter Derivatives

The Canadian over-the-counter (OTC) derivatives market sustained growth in 2023. As of December 31, 2023, the total notional outstanding for all OTC derivative products, excluding commodities,[50] involving a Canadian counterparty reached $88.6 trillion, reflecting a 15% year-over-year increase.[51] Interest rate derivatives primarily fueled this growth, with a 18% increase, though all asset classes demonstrated year-over-year growth (see Figure 20).

Figure 20 – Total notional outstanding for Canadian OTC derivatives by contract type



Canada's share of the global OTC derivatives market has steadily increased over the years. In term of notional outstanding, Canada's share has risen from 5.3% in 2018 to 8.3% at the end of 2022.[52] All Canadian asset classes have increased their share of the global market, except for credit (see Figure 21).

The 2007-2008 global financial crisis brought the OTC derivatives market into the limelight, highlighting risks this market can pose to the financial system. The OTC derivatives market is facilitated by large global financial institutions with connections to entities across industries, including other large and smaller financial firms, large market infrastructure utilities (clearing houses, trading platforms), buy-side financial entities (pension funds, investment funds, insurance companies, central banks, and governments) and non-financial businesses. This network of connections is both a strength and a weakness of the OTC derivatives market. Notably, it enables efficient transfer of risk to entities who want it from those

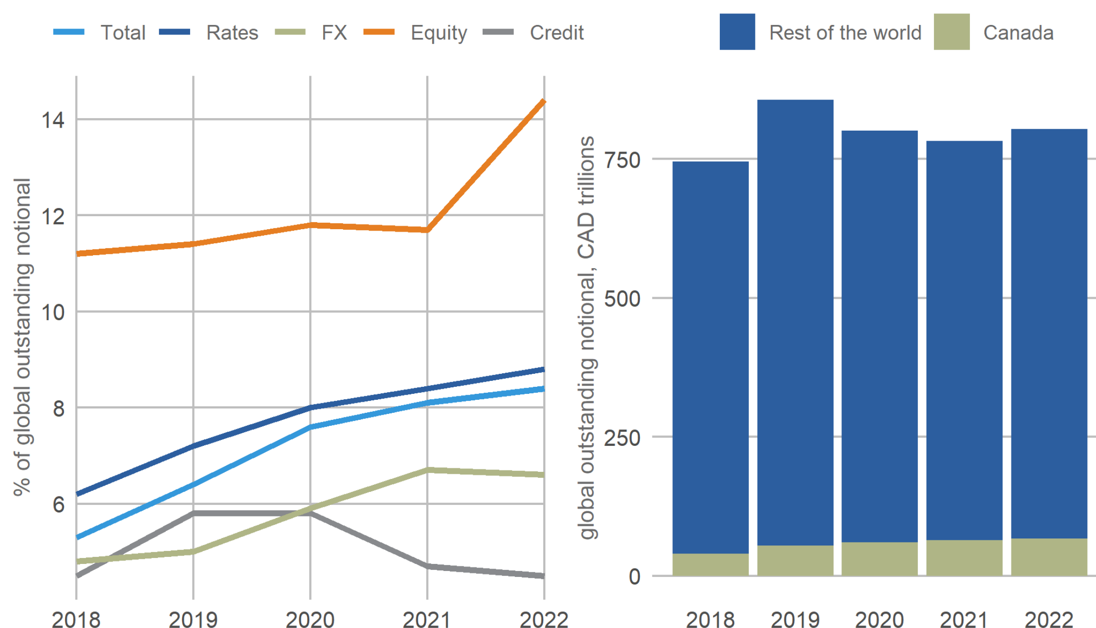
[50] Outstanding notional amounts are not available for commodity derivatives due to calculation complexities.

[51] OSC aggregation of public Canadian trade repository data.

[52] See BIS' OTC Derivatives Statistics.

that do not. However, the failure of one large, highly connected entity may affect other parties and, in extreme cases, cause a chain reaction of negative knock-on effects, threatening the entire financial ecosystem.

Figure 21 – Overview of Canadian and global OTC derivatives markets



Source: Bank of International Settlements, Canada Trade Repository & CSA staff calculations.

OTC derivatives can also facilitate the buildup of large exposures. Large exposures can magnify the impact of a failure, creating the potential for relatively smaller entities to cause much larger losses within the network. A perfect example is the failure of Archegos Capital Management in 2021. Unable to meet prime broker margin calls, Archegos caused significant losses at several global systemically important banks. This event demonstrated the potential risk of using OTC derivatives to build large, concentrated positions using multiple prime brokers and how these activities can transmit and amplify shocks.

The principal vulnerability in the OTC derivatives market remains the potential for negative knock-on effects from the failure of a highly leveraged and interconnected entity through its OTC derivative trades. The more leveraged and connected the entity, the greater the risk it poses. These risks became apparent in 2023 with the failure of several banks, including Silicon Valley Bank, Signature Bank, First Republic Bank and Credit Suisse. While differing in size and degree of connection, each failure represented the potential for losses to cascade throughout the financial system.

Regulatory developments in Canada have helped mitigate systemic risk. The types of risks described herein are now better understood. Regulations developed since the 2007-2008 global financial crisis require certain OTC derivatives to be cleared, collateral to be exchanged for uncleared trades between financial entities, and trade details to be reported to regulators. Each of these requirements helped mitigate the potential systemic risk emanating from the 2023 bank failures. For example, requiring collateral to be exchanged between counterparties

or with a clearing house helped minimize the potential counterparty credit exposure, and trade reporting data enabled CSA members to assess the extent to which the failed banks were connected to Canadian entities.

The CSA Derivatives Committee has closely followed international regulatory proposals and legislative developments over the years. Consulting with Canada's OTC derivatives market participants and collaborating with other Canadian regulators, the committee has aimed to enhance the regulatory framework. Further progress in the development of, and compliance with, CSA requirements is key to maintaining their effectiveness. The CSA published requirements regarding the business conduct of derivatives dealers and advisers in Multilateral Instrument 93-101 *Derivatives: Business Conduct*, effective from September 28, 2024.[53] Additionally, the adoption of harmonized international derivative data standards, improvement in data quality validations at trade repositories, and new responsibilities of reporting counterparties for verification of the data they report, are all important CSA initiatives that will improve the quality and reliability of the data used in systemic risk analysis. The CSA expects to finalize these trade reporting rule amendments in the spring of 2024, which would become effective one year later.

Overall, the Canadian OTC derivatives market continues to function effectively. OTC derivatives continue to be used by Canadian market participants as an important risk mitigation tool and an efficient means to gain exposure to various markets. Interest rate swaps make up the bulk of the total outstanding notional in Canada, while foreign exchange derivatives comprise much of the outstanding notional volume traded intramonth.

The OTC derivatives market is an active market and CSA members closely monitor volume trends by asset class, product type, and underlying reference asset. Continuous monitoring is warranted due to the market's significant size and levels of interconnections. In the current post-reform environment, the OTC derivatives market should be monitored for dynamics and trends in products traded, active counterparties, and the level of associated risks. The CSA continues to monitor risks and concentration in the market using trade repository data, as well as implementing requirements to regulate the conduct of key participants in the OTC derivatives market.

The CSA will also focus on improving the quality and reliability of the data collected with upcoming rule amendments. The CSA will also continue developing tools, including better database systems, visualization tools, and improved risk metrics, to better understand the large and complex data collected. These changes will allow improved analyses and the ability to generate a more complete picture of systemic health in the OTC derivatives market.

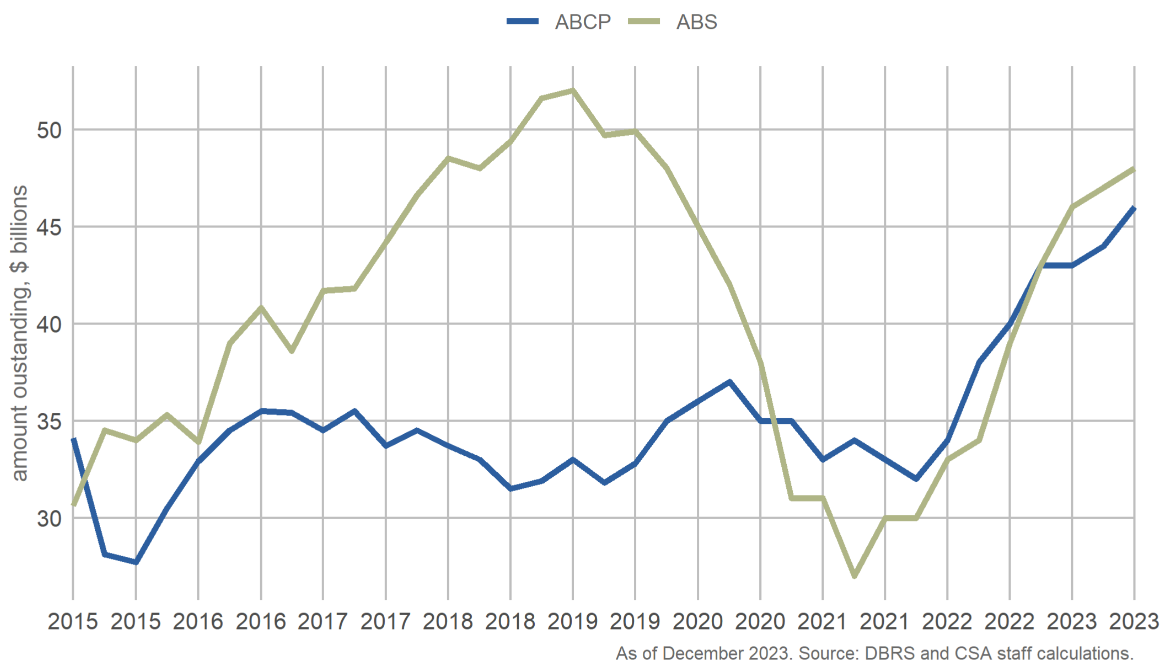
[53] See Multilateral Instrument 93-101 *Derivatives: Business Conduct*.

Private Securitization

The Canadian securitization market is an important component of Canada's financial system. Securitization, which refers to the creation of tradable securities that are based on difficult-to-trade assets such as mortgages, represents an important source of funding for Canadian households and businesses. The majority of the market is government-backed through the National Housing Act Mortgage-Backed Securities and Canada Mortgage Bonds programs, facilitating the issuance of securities backed by insured residential mortgages. As of the end of September 2023, outstanding securitized amounts through these programs reached $493 billion, marking a $30 billion increase compared to a year earlier.

While the private securitization market has been growing in recent quarters, it has yet to rebound to pre-2008 levels in Canada. According to DBRS, the total amount outstanding in this market stood at $109 billion as of October 31, 2023.[54] Term asset-backed securities (term-ABS) represent almost half of this market, followed by asset-backed commercial paper (ABCP). The main types of underlying assets are credit card balances, followed by auto and mortgage related debt. Just before the 2007-2008 global financial crisis, the securitization market in Canada peaked at about $178 billion, before declining substantially, notably due to issues related to the ABCP market.

Figure 22 – Canadian term-ABS and ABCP outstanding



As of December 2023. Source: DBRS and CSA staff calculations.

The private securitization market provides important benefits, notably by enhancing credit availability, but also presents some potential risks. The main risks associated with securitized instruments, highlighted during the 2007-2008 global financial crisis, stem from the complexity of some of these securities and a relative lack of standardization, transparency, and

[54] Includes private placements.

disclosure, making them difficult to value and trade, particularly in times of stress. Additionally, events during the 2007-2008 global financial crisis highlighted that, in some instances, the interest of sponsors of securitized instruments and investors were not necessarily aligned.

The Canadian ABCP market has somewhat recovered since 2008, aided by enhanced transparency and disclosure. Amendments to the short-term securitized product prospectus exemption in National Instrument 45-106 *Prospectus Exemptions* have addressed various issues identified in the ABCP market during the global financial crisis of 2007-2008. These amendments prohibit the inclusion of non-traditional assets (like credit derivatives), require the use of more robust, “global-style” liquidity facilities, and establish minimum credit rating thresholds to qualify for the exemption.

The credit performance of securitized instruments remains robust with low delinquency rates, although the changing economic environment poses some risks.[55] Marked increases in inflation and interest rates since the beginning of 2022 have put pressure on household finances, counterbalanced to some extent by the relative strength of the Canadian labour market. Further deterioration in economic conditions and higher-for-longer interest rates may impose additional pressure on household finances, potentially affecting securitized instruments primarily associated with consumer lending.

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[55] Source: DBRS Morningstar, *Canadian Securitization Market Overview: October 2023*.

List of Selected Acronyms

ASC	Alberta Securities Commission
AMF	Autorité des marchés financiers (Québec)
BCBS	Basel Committee on Banking Supervision
BCSC	British Columbia Securities Commission
CDIC	Canada Deposit Insurance Corporation
CARR	Canadian Alternative Reference Rate Working Group
CDS	Canadian Depository for Securities
CDCC	Canadian Derivatives Clearing Corporation
CFIF	Canadian Fixed-Income Forum
CIRO	Canadian Investment Regulatory Organization
CSA	Canadian Securities Administrators
CPMI	Committee on Payments and Market Infrastructures
FCAA	Financial and Consumer Affairs Authority (Saskatchewan)
FCNB	Financial and Consumer Services Commission (New Brunswick)
FSB	Financial Stability Board
IFIC	Investment Funds Institute of Canada
IOSCO	International Organization of Securities Commissions
MSC	Manitoba Securities Commission
NSSC	Nova Scotia Securities Commission
OSFI	Office of the Superintendent of Financial Institutions
OSC	Ontario Securities Commission
SRC	Systemic Risk Committee

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