IIAC ACCVM
INVESTMENT INDUSTRY ASSOCIATION OF CANADA
ASSOCIATION CANADIENNE DU COMMERCE DES VALEURS MOBILIÈRES

Industry Perspectives on the Current State of Canadian Repo Markets

DECEMBER 2018

EXECUTIVE SUMMARY

A well-functioning market for repurchase agreements ("repo") underpins liquidity in our financial system. To assess the current state of Canadian repo markets, the Investment Industry Association of Canada ("IIAC") undertook a qualitative study comprised of a standardized survey and a series of structured interviews with domestic market participants. While the responses reveal a generally healthy market for repo in Canada, they also identified emerging structural changes impacting repo markets and repo as a line of business.

- Global regulatory reforms discouraging the build-up of leverage and over reliance on short-term funding have increased costs for repo financing while also limiting the collateral available for repo, forcing participants to consider alternatives for meeting short-term financing, investing or liquidity needs.
- A prolonged environment of ultra-low rates and compressed margins has required Canadian banks and dealers to measure domestic repo opportunities against those available globally and, increasingly, more profitable trades are originating outside of Canada.
- Improved risk management and stricter regulatory requirements on the composition of their balance sheet have required Canadian banks and dealers to become more selective when engaging in repo market intermediation, resulting in some demand for repo going un-filled or filled but at a higher cost.
- While an increased presence from international participants has improved repo market dynamics, other efforts to broaden participation and make domestic repo markets deeper have not yet fully materialized. An absence of cash providers has resulted in largely one directional flows and limited the opportunities for transacting term repo.

These factors, while not all unique to Canada, have contributed to a narrowing of the repo market in Canada resulting in imbalances that jeopardize the ability of repo to both provide predictable short-term liquidity and do so at an effective price. Most impacted have been non-franchise clients with little or no high-quality collateral to lend.

While participants in our study conclude that domestic repo markets today find themselves on solid footing and will perform better than in 2008 or 2009 should another credit crisis occur, they identified steps for improving the efficiency and effectiveness of the market. Specifically:

1. Canadian policy makers must continue to work with industry to ensure that any implementation of internationally agreed-to reforms be properly calibrated to the uniqueness of the Canadian market.
2. Canada's central clearing platform for repo must continue to evolve by further broadening participation and introducing innovative new trading products that can deliver efficiencies and liquidity to the market place.
3. Canada should explore the development of a tri-party repo market to simplify some of the daily transactional tasks and entice new participants into the market.

Achieving the above will require market participants to engage in extensive dialogue with policy makers and infrastructure providers. The IIAC can play a role in facilitating these discussions and working towards implementing solutions that foster an effective repo market for Canada.

WHY THIS STUDY?

The repo market is a sometimes overlooked and often misunderstood part of the financial system yet is essential to its efficient functioning. Not only is repo a primary vehicle through which central banks transmit monetary policy, but it also provides participants a means for secured short-term borrowing and lending which underpins the flow of cash and collateral in our financial markets. Without the intermediation and resulting liquidity provided by repo, capital market activity such as dealer market-making would essentially come to a screeching halt with widespread effects on the real economy.

Since the aftermath of the 2008 financial crisis, global repo markets have been subject to new financial regulations aimed at safeguarding the financial system by combating excessive build-up of leverage and unstable funding. Firms themselves have also sharpened their awareness of risk and become more judicious in how capital is deployed and choosing the counterparties they transact with. Concerns have been routinely raised that these changes are influencing the structure of repo markets and impacting their ability to transmit liquidity in the financial system, especially in stressed markets.

To substantiate whether such concerns are valid from a Canadian context, the IIAC asked Canadian repo market participants a series of pointed questions to obtain their views on how serious the impacts have been and provide a sounding on how Canadian repo markets can be improved.

METHODOLOGY

Feedback was obtained using a standardized survey administered to market participants and complemented with a series of bi-lateral discussions. A total of sixteen market professionals across twelve institutions, encompassing the buy and sell-side, as well as market intermediaries, contributed to our findings. We are very grateful for their participation in our research. To encourage candid and complete responses, all participants were afforded complete anonymity.

STUDY FINDINGS

1. REGULATIONS ARE HAVING THE MOST SIGNIFICANT IMPACT ON CANADIAN REPO MARKET FUNCTIONING.

According to survey responses, global regulatory reforms have had the most significant impact on Canadian repo markets in recent years. Almost all respondents identified at least one, and often several, regulatory initiatives as a primary influence on market functioning. Interestingly, some global regulatory initiatives which have yet to be adopted in Canada are already leaving their mark by contributing to business uncertainty or realignment of behavior in anticipation of the requirements. While the regulations largely target bank participants directly, their effects are wide spread with reverberations felt by clients and non-bank participants.

Most of the regulatory measures cited related to the *Basel Committee on Banking Supervision Basel III Reforms.* Among other things, these reforms unveiled new capital and liquidity requirements for regulated financial institutions neatly packaged in a series of metrics, buffers and ratios[1]. These new capital ratios require more capital (and of higher quality) for certain forms of bank borrowing (including repo) while the liquidity ratios limit the use of short-term borrowing on securities collateral.

Three ratios garnering significant attention from the participants of our study are the: Leverage Ratio, Liquidity Coverage Ratio (LCR) and the Net Stable Funding Ratio (NSFR). The Fundamental Review of the Trading Book (FRTB) was also cited by some respondents as potentially having an extreme impact on repo desks when eventually implemented.

While each of the above reforms impact repo in different ways, collectively they contribute to apportioning higher costs, making it both a more difficult business proposition for banks and dealers and a more expensive funding alternative for end-users. One concern raised by participants was as cost pressures mount, pricing in repo markets will be forced to adjust upward leading to wider spreads for the government bonds and other collateral.

Among the regulatory reforms, it was NSFR that grabbed most of the participants attention in the survey responses as well as in the interviews conducted. Though not being adopted in Canada before January 2020[2], sell-side participants were vocal of NSFR's potential impact on the ability for dealers to act as intermediaries in the collateral and cash markets. Specifically, the NSFR framework requires banks to fund a substantial portion of short-term assets at long-term rates. This will require banks to potentially hold billions of longer-term funding in relation to positions taken in the repo market, resulting in increased costs of repo financing. The implications could be widespread given the ways in which repo and collateral markets underlie activities in financial markets.

In addition to altering the economics of repo, the regulations are also having an impact on participant behavior. For example, to improve their LCR metric, banks are incented to trade against specific asset classes and maturities. These were reflected by some study participants who indicate an element of "window dressing" that unfolds at month or quarter ends.

Respondents are also wary of the uncertainty brought about by regulation which has further complicated business planning. Transfer pricing – how banks allocate their balance sheet costs, whether at the repo desk level or at the firm wide level, is a case in point. Being able to spread costs across the bank's other activities could help alleviate some of the cost pressures on repo, and could result in a much-improved business case for repo desks. However, such a business model may not receive the necessary buy-in from the top of the house.

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1 See Basel Committee on Banking Supervision Basel III Reforms

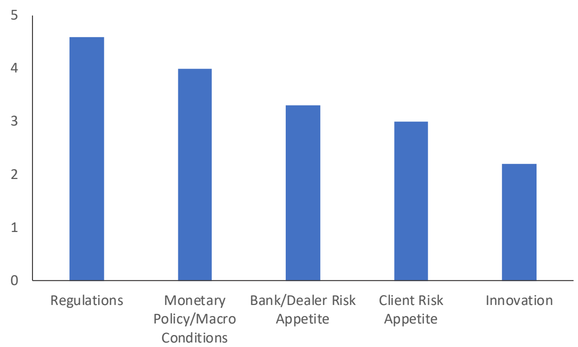
2 See OSFI's implementation timeline for NSFR in Canada

Buy-side respondents to our survey expressed concern that if Canadian banks continue reducing their balance sheets due to regulations, there is a lack of marginal balance sheet providers to fill the void in Canada given the absence of international banks conducting repo in Canada. They feel this could jeopardize their ability to easily access repo market liquidity when most required.

It was acknowledged by some participants, however, that Canadian policy makers have made efforts to consult with industry to better understand the potential market implications of new regulations. Continued dialogue was encouraged.

FIGURE 1

What is Shaping Canadian Repo Markets
Weighted Average Scores*



* Ranked on Scale from 1 to 5 where 1 indicates 'no impact on repo markets' and 5 indicates 'very high impact on repo markets'. (Source: IIAC Survey)

2. LESS REPO LIQUIDITY AVAILABLE TO SOME CLIENTS

Nearly three quarters of all survey respondents indicated that they are dealing with either as many or more repo counterparties today than they did five years ago. However, a recurring message delivered by sell-side respondents was that increased constraints imposed on repo desks (largely from regulatory drivers) have forced them to be more selective in who they transact with. Client relationships are carefully evaluated to identify those with priority access to bank balance sheet. This includes placing limits on larger clients as well as off-boarding lower return clients. Domestic repo opportunities are also being measured by banks and dealers against those available globally and, increasingly, they see more profitable trades arise outside of Canada.

Several respondents indicated taking a more holistic approach when evaluating clients by focusing on opportunities that benefit their firm and prioritize relationships that will lead to sustainable growth for the firm. Satisfying the needs of these franchise clients is viewed as a priority. Non-franchise clients will, therefore, be challenged to get access to bank balance sheet, particularly if they have little or no high-quality collateral to post.

As larger banks and dealers trim back balance sheet that they are willing to provide some clients, smaller dealers indicated this has created opportunities by exposing them to new sets of counterparties. However, the net effect may be that the intermediation offered by Canadian banks and dealers through repo may not be filling all client demand.

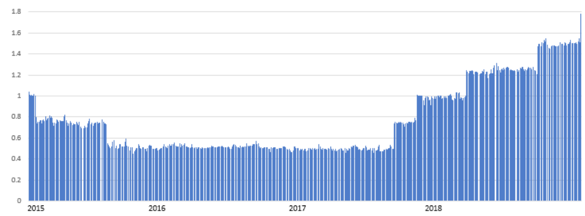
3. MACRO CONDITIONS AND CANADIAN MONETARY POLICY ARE ALSO HAVING AN IMPACT ON REPO MARKETS

The recent upward move in interest rates has increased expectations of future rate increases, presenting some opportunities for repo market participants as term views become expressed. Rising rates were viewed by some respondents as also enticing increased participation in the Canadian market, particularly among international names redeploying cash into Canada. However, while policy tightening by the Bank of Canada has contributed to increased repo activity, several participants continued to see more attractive trading opportunities outside Canada.

The Bank of Canada's use of market operations was also noted by some participants as impacting repo markets. Specifically, The Bank's decision to reduce the level of settlement balances was noted as supporting a repo rate within the context of the Bank of Canada's target.

FIGURE 2

Canadian Overnight Repo Rate Average (CORRA)



Source: Bank of Canada, Thomson Reuters Benchmark Services

4. INTERNATIONAL CLIENTS ARE CONTRIBUTING POSITIVELY TO MARKET DYNAMICS

Sell-side participants noted a change in client composition. While leverage investors continue to be active in Canadian repo markets, participants identified increased activity from 'real money' clients. However, given the low yield environment, some of these clients are also increasingly accessing leverage structures. Several respondents noted increased participation in Canadian repo markets from international participants, including foreign central banks, asset managers and sovereign wealth funds. This participation has been partly spurred by the recent movement in Canadian rates and by the strong reputation Canada's financial sector continues to carry following the financial crisis. Respondents indicated the arrival (or return) of international participants has helped increase the volume of bonds being lent now that rates are higher, resulting in fewer bonds trading 'special'. This increased international dimension to domestic repo markets was viewed positively by respondents in terms of contributing to market liquidity and the realization of more profitable trading opportunities.

5. REPO MARKET PARTICIPANTS FORCED TO INNOVATE AND CONSIDER ALTERNATIVES

Post-crisis reforms requiring that more high-quality liquid assets remain on bank balance sheet, has forced dealers to expand the universe of asset classes covered by repo. Corporate bonds, asset-backed securities and equities have been added to their mix of available collateral to facilitate short-term borrowing. Repo has, therefore, become more critical in obtaining cash against these lesser liquid assets or, conversely, these less liquid assets are helping support wholesale funding in repo markets.

The leverage confines of the post-crisis regulatory environment have also required sell-side participants to increasingly turn their attention to products with lesser impact on their leverage footprint. Total return swaps, securities lending, commercial paper programs and bond forwards were commonly sited by respondents as alternatives to repo that firms are currently using, or planning to use, to meet short-term financing, investing or liquidity needs. Some buy-side firms have also incorporated some of these vehicles as part of their funding frameworks. The shift to these alternative vehicles could detract from repo market intermediation.

To assist with collateral and liquidity management, market participants have also turned to new repo structures. Specifically, evergreen or extendable repos were cited by participants as garnering their increased attention. Unlike conventional repo, the term on these repos can be continuously renewed by agreement of both parties. They were viewed as an efficient way to term out funding within the current regulatory framework.

6. A NEW OUTLOOK ON RISK IS INFLUENCING LENDING DECISIONS

While survey responses indicated no material changes to the risk appetite of most repo participants over the past few years, they did reveal an increased focus on counterparty risk management. Greater coordination between credit-risk teams and repo desks have expanded the metrics used to evaluate counterparty exposure. Strict adherence to counterparty credit limits has limited the availability of bank balance sheet to some customers. The survey also indicated that risk limits are shared globally and that there is a general tendency towards less outright positioning with more basis trading involving Overnight Index Swaps and derivatives hedging.

7. NEW OR ENHANCED INFRASTRUCTURE IS NEEDED TO BETTER SUPPORT MARKET LIQUIDITY

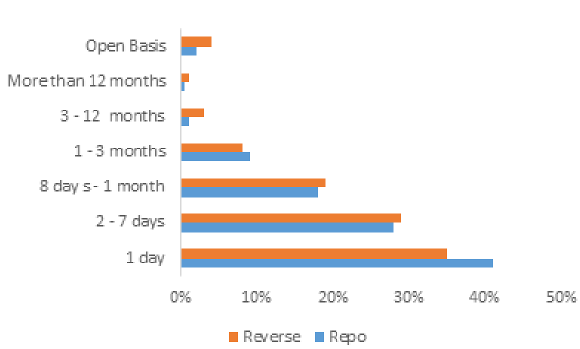
To better utilize finite balance sheet and mobilize collateral more efficiently, respondents noted the importance of repo market infrastructure. Specifically, a desire to manage counterparty risk exposure and maximize netting opportunities has promoted the central clearing of repo in Canada[3]. The expectation of respondents was that Canada's repo CCP would continue to evolve to deliver increased efficiencies to participants and repo markets broadly.

While the recent onboarding of domestic pension plans to Canada's CCP was viewed as a welcomed development, sell-side participants indicated a desire to see lenders of cash in the CCP so that maximum netting benefits could be achieved, further supporting repo market liquidity. However, current regulatory restrictions may be preventing some cash providers from participating in repo markets.

Respondents also expressed the hope that the CCP's launch would have contributed to the development of a more active term market for repo but this has not yet been the case. The homogenous composition of current CCP participants with one directional flow and heavy reliance on matched-book repo results in most cleared trades currently having a term of 2 days or less. Further diversification in CCP member composition was viewed as possibly helping develop a more liquid term market. Interest was also expressed in exploring innovative new trading products eligible for clearing through the CCP that could further deliver balance sheet efficiencies, help meet regulatory requirements and contribute to repo market liquidity.

FIGURE 3

Average Term to Maturity of Total Repo Outstanding
As reported by Survey Respondents



Source: IIAC Survey

[3] Canada's fixed income CCP was launched in 2012 by the Canadian Derivatives Clearing Corporation (CDCC)

When asked what infrastructure or service is most noticeably absent in Canada, respondents were almost unanimous in singling out tri-party repo. Tri-party repo utilizes a third-party agent to process various post-trade activity during the life of the transaction such as collateral selection, payment and settlement, and custody. Tri-party is the dominate framework for repo in the U.S. but also utilized to varying degrees in other jurisdictions including Europe. Development of a tri-party market in Canada was considered positive as it could bring several benefits including attracting new non-bank entrants by managing some of the daily transactional aspects to repo on their behalf. Tri-party could also allow existing market participants the opportunity to utilize collateral more efficiently while helping collateral provider and collateral receiver mitigate their operational, credit and settlement risks.

8. REPO MARKETS HAVE IMPROVED BUT REMAIN VULNERABLE TO FUTURE SHOCKS

According to half of our survey respondents, current repo market functioning has improved over the past three years. This compares to thirty percent who believe market functioning has remained unchanged and twenty percent who believe it has slightly deteriorated over the period.

Overall, participants in our study indicated that domestic repo markets today find themselves on a more solid footing and will perform better than in 2008 and 2009 should another credit crisis occur. However, new and pending regulations have impacted the way in which the repo business is executed and how collateral is mobilized and priced. This has brought some dislocations to the wholesale funding marketplace jeopardizing its reliability for users which could become more pronounced during an extreme credit event.

CONCLUSION AND RECOMMENDATIONS

Our study confirms that global regulatory reforms and structural adjustments stemming from the financial crisis have had material influence on Canadian repo markets and repo as a line of business. As bank capital is directed to business areas offering the highest risk-adjusted returns, repo is now an outlier. This forces repo desks to make some difficult business decisions including looking at alternatives to repo or channeling cash and/or collateral primarily to priority clients. Overall, however, the impact on repo market functioning has not been severe.

Survey responses and feedback reveal measures that can be taken to bolster domestic repo markets, some of which have already been touched on in this report.

Specifically:

1. While participants are now largely understanding of the internationally coordinated regulatory agenda, they believe that it must be calibrated appropriately for the uniqueness of the Canadian market place. Canadian policy makers must continue to work with market participants to identify how global regulations such as NSFR and FRTB can be best tailored for Canadian markets while keeping in the spirit of what has been agreed to internationally.
2. Repo market infrastructure in Canada must continue to evolve. This includes continued enhancements to existing services such as Canada's CCP and exploring the introduction of new service offerings.
3. Opportunities to expand participation in domestic repo markets must be pursued. Increased participation would help support market fundamentals in both the centrally cleared and bi-lateral repo markets. The development of a tri-party repo market in Canada could provide a means for new participants to utilize repo or bring further efficiencies to existing participants.

CLOSING

Much like repo markets globally, Canadian repo markets have undergone a transformation to align with the post-crisis environment. In the event of a future credit stress event the significance of secured funding markets such as repo will again likely take center stage. While Canadian repo markets have evolved considerably over the course of the past decade, they continue to take shape, and opportunities remain for ensuring their effectiveness in supporting our financial system.