The Role of Securities Lending in Market Liquidity

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Introduction

The securities-lending market facilitates an increase in overall market liquidity and in the flexibility of financing. It promotes market efficiency by enhancing the price-discovery mechanism in cash securities markets. For these reasons, and because of its role in supporting market-making activities, the securities-lending market has been identified by the Bank of Canada as one of the five core funding markets.[1] Owing to significant linkages with other important markets, the securities-lending market may be a potential source of contagion during times of stress. Therefore, supporting improvements in the functioning and efficiency of this market and ensuring its continuous operation are essential to promoting financial system stability. This report describes the role of securities lending in a broader market context and provides an overview of the market structure, focusing on the demand and supply factors, the choice of collateral, and the relevant risks. Certain aspects of market practices, some of which played a role in exacerbating the recent financial market crisis, are also discussed, followed by recommendations for improvement and the outlook for the future.

General Market Overview

Securities lending in a broader market context

Securities lending involves the temporary exchange of securities for collateral, which may consist of securities or cash. The usual term of the loan is overnight and open, meaning that it can be rolled over daily until the security is returned or recalled by the lender. Legal ownership is transferred from the securities lender to the borrower for the duration of the loan. Borrowed securities may thus be transferred to a third party as part of another securities-lending transaction or as a means of trade settlement, including the covering of short positions. The lender collects coupon payments or dividends that accrue on lent securities, while the borrower retains the rights to coupon payments or dividends on collateral securities.

Securities lending contributes to effective market-making, increases overall market liquidity, and enhances the efficiency of price-discovery mechanisms in cash markets by allowing market-makers and investors to take on and cover short positions as part of their market-making activity, their investment and trading strategy, or for hedging purposes. Securities lending also increases the flexibility of financing for various market participants by facilitating the exchange of a broad range of securities, such as corporate bonds, convertible securities, and deposit notes for securities of higher quality that can be used in repurchase (repo) financing transactions. Alternatively, securities may be borrowed in exchange for cash, which can then be invested in the repo market or in other short-term assets. Securities lending and repo transactions are both secured financing transactions and are similar in many respects. But while the majority of repo transactions are motivated by a need to borrow or to invest cash, securities-lending transactions usually result from a need to borrow specific securities or to upgrade collateral.[2]

Lending agents and supply and demand

A typical transaction is carried out between the borrower of a security and a securities-lending agent that lends the securities on behalf of the owner. Securities-lending agents

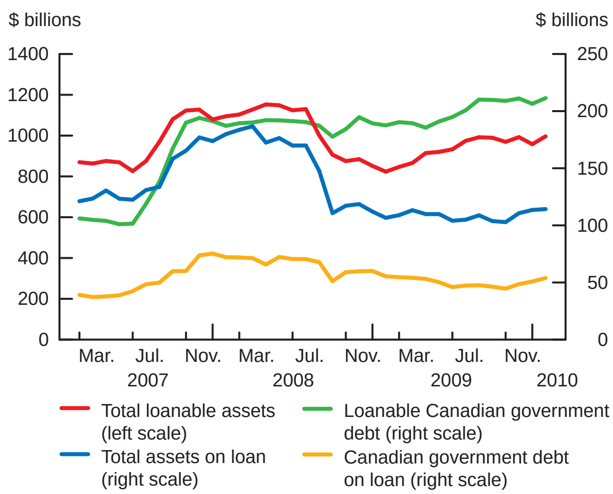
1 The other core funding markets are: (i) the market for Government of Canada treasury bills and bonds; (ii) the repo market; (iii) the market for bankers' acceptances; and (iv) spot and swap foreign exchange markets. For more information on the core funding markets, see Fontaine, Selody, and Wilkins (2009).

2 Morrow (1994–95) discusses the evolution of the repo and securities-lending markets in Canada, as well as their similarities and differences.

are most often custodian banks. The largest custodian banks, representing about 90 per cent of the total securities-lending market in Canada, are RBC Dexia, State Street, CIBC Mellon, and Northern Trust.

According to data on transactions at custodian banks provided by Data Explorers Ltd., total loanable[3] assets in February 2010 amounted to $997 billion, of which $114 billion was on loan **(Chart 1)**. As illustrated in the chart, the supply of loanable assets grew rapidly in mid-to-late 2007. It reached a peak in May of 2008, but dropped significantly around the time of the Lehman Brothers bankruptcy in September 2008.[4] A similar pattern can be seen in terms of the value of the securities on loan. Since early 2009, the market has begun to stabilize; however, borrowing activity has not returned to pre-crisis levels.

Chart 1: The securities-lending market in Canada has begun to stabilize



Source: Data Explorers Ltd. Last observation: February 2010

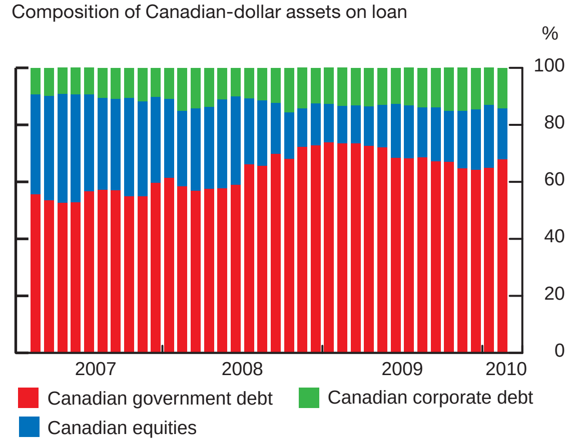
Securities-lending transactions are executed on behalf of the owners of securities, known as "beneficial owners," who are, in most cases, custodial-services clients of custodian banks. Beneficial owners are typically institutional investors, such as pension funds, mutual funds, endowment funds, and insurance companies. Participation in a securities-lending program allows beneficial owners to generate incremental income on their securities held in custody.

Prime brokerages are also involved in securities lending, mostly to service the borrowing needs of hedge funds and other professional investors. Prime brokerages might lend securities out of their inventory or borrow them from custodian banks or other prime brokerages. Traditionally, most of their activity revolves around the borrowing and lending of equities, but is not limited to these transactions.

Securities borrowers are most often investment dealers, banks, hedge funds, and asset managers or, more generally, those entities involved in executing various hedging and trading strategies. Demand is often driven by a need to raise financing by exchanging the available collateral for fixed-income securities eligible to be used in repo transactions. Other important sources of demand are the covering of short positions and, more generally, the settlement of financial contracts requiring the delivery of a security. **Chart 2** shows that, for assets denominated in Canadian dollars, the share of borrowed Canadian government debt (including agency and provincial bonds) is much greater than that of equity securities. This is also the case globally, where the majority of securities loans are fixed-income loans that can be used as collateral in other financing transactions (Spitalfields Advisors 2009).

Chart 2: The majority of Canadian assets on loan are government debt securities

Composition of Canadian-dollar assets on loan



Source: Data Explorers Ltd. Last observation: February 2010

Cash versus non-cash collateral

Many aspects of collateralization can be customized according to the risk appetite of the program's beneficial owner. Examples include the list of eligible collateral (which may or may not include cash), eligible counterparties, cash-reinvestment guidelines, the segregated or commingled nature of reinvestment accounts, and revenue-splitting arrangements. Currently, approximately 80 per cent of the securities-lending transactions executed by custodian banks in Canada are against non-cash collateral.[5] The list of securities acceptable as collateral is usually quite broad, most commonly consisting of Government of Canada bonds, U.S. Treasuries, Government of Canada-guaranteed

3 Loanable assets are assets that the beneficial owners have agreed to make available for lending by their custodian, subject to the terms and conditions of the negotiated securities-lending agreement.

4 Note that a part of this drop is attributable to depressed equity prices during this period.

5 Source: Custodian bank data from Data Explorers Ltd.

bonds, U.S. agency bonds and certain other sovereign debt, bankers' acceptances and bank deposit notes from certain issuers, convertible corporate securities, and, in some cases, equities. Some collateral is subject to additional limits and/or other conditions specific to each program or borrower. An overcollateralization[6] rate of between 102 per cent and 105 per cent is required for high-quality fixed-income collateral (such as Government of Canada bonds). Overcollateralization rates on more volatile or riskier collateral are higher (110 per cent for equity securities, for example) to provide an additional credit cushion in case the collateral needs to be liquidated. In addition to overcollateralization, the borrower is charged a fee that is specific to the type and availability of the borrowed security (as well as a number of other transaction-specific factors). The fee ranges from a few to several hundred basis points. Fees of 200 basis points are not uncommon in the case of equity securities that are in high demand and not widely available.

In Canada, the share of cash-collateral transactions by custodian banks has risen steadily, from being virtually non-existent about 10 years ago to an average of 20 per cent over the past several years. In contrast, cash transactions constitute an overwhelming majority of the securities-lending business in the United States and are also somewhat more popular in some European markets. Depending on the negotiated terms of the securities-lending program, cash collateral could be used as a source of funding for repo transactions or it could be invested in assets ranging from very conservative to more risky. Common investment choices include treasury bills, unsecured and asset-backed commercial paper, floating-rate notes, and term asset-backed securities. Longer-term assets and structured securities are also potential choices. These investments may be made by pooling cash from transactions on behalf of different beneficial owners and holding it separately, or in commingled accounts, depending on the terms negotiated between the custodian bank and the beneficial owner. In cash-collateral securities-lending transactions, the borrower is usually paid a rebate rate related to the overnight rate. Thus, in this case, the profitability of the transaction is related to the difference between the returns earned on the cash-reinvestment portfolio and the rebate rate paid to the borrower.

The collateralized nature of securities-lending transactions provides a degree of credit-risk protection in that it allows the security lender (beneficial owner or their lending agent) to liquidate the collateral if the borrower fails to return the borrowed security. The degree of credit-risk protection depends on the credit quality and liquidity of the collateral and the administered haircut. The presence of the haircut, if properly calculated and charged, should be sufficient to cover the downside risk to the collateral value for non-cash collateral programs. Upon liquidating the collateral securities, the lender should be able to repurchase the original (or equivalent) securities without incurring any losses.

To further mitigate credit risk, almost all large custodian banks offer their clients (beneficial owners) an indemnity against counterparty default. The scope of indemnities varies across institutions. In some cases, beneficial owners are indemnified against losses resulting from a borrower's failure to return the loaned securities, for any reason, within the specified time period. In other cases, beneficial owners are indemnified only against losses incurred as a result of an insolvency-related failure to return securities. The contractual wording of the indemnity provides the specifics.

The degree of credit protection in cash-collateral programs depends on the credit quality and liquidity of the assets in the cash-reinvestment portfolio. A highly conservative reinvestment portfolio (i.e., a heavy concentration of overnight repos or treasury bills) is more likely to be liquidated without incurring losses than a portfolio consisting of less-liquid, longer-term assets, or assets with lower credit quality. Likewise, in a situation where a security is unexpectedly returned to the lender within a cash-lending program, the lender must liquidate the reinvestment securities in order to return the cash to the borrower.[7] If the liquidation is done under unfavourable market conditions, the securities lender (i.e., the beneficial owner) may incur losses. Loan recalls in non-cash collateral programs run a much lower risk of potential loss, because the lender would simply return the collateral securities in exchange for the original loaned securities.

Market Functioning During the Financial Crisis

Following the failure of Lehman Brothers, a significant number of securities-lending programs were suspended, both in Canada and in other major markets (Oliver 2009). At the height of the financial crisis—between September and November 2008—the amount of assets available for lending was reduced by more than 20 per cent in Canada and by about the same percentage globally. There was a sizable reduction in the value of securities-lending transactions as well. To a certain extent, the problems that arose in the securities-lending market were a direct result of the widespread market stress. However, the impact of suspensions in securities-lending programs, and the large-scale recalls of security loans that followed, further exacerbated the crisis by contributing to deleveraging pressures and decreasing the supply of loanable assets (Senior Supervisors Group 2009).

Certain cash-collateral programs proved more problematic than non-cash programs for some of the same reasons discussed in the previous section. These cash-collateral programs added to deleveraging pressures by liquidating

6 An overcollateralization rate of 105 per cent means that the borrower must pledge collateral worth 105 per cent of the value of the borrowed securities. Another way to present this information is to quote haircut levels, which are stated as a percentage discount on the value of the collateral. In this example, the haircut would amount to a little less than 5 per cent (i.e., 5/105).

7 This oversimplified version of what actually happens is used to illustrate the point.

investments (to meet security loan recalls) at a time when markets were highly illiquid and the demand for investment assets was extremely low. This had a negative impact on asset prices and contributed to their downward spiral. As asset prices continued to decline, leading to losses in cash-reinvestment pools, many beneficial owners decided to suspend their securities-lending programs to re-examine the risks. A decrease in the amount of cash generated through cash-collateral programs reduced the availability of financing (offered through the repo market or via the reinvestment of cash to purchase credit instruments). This exacerbated the already difficult funding conditions. The reduction in the supply of loanable assets (particularly U.S. Treasuries) made it more difficult to cover short positions, thus contributing to an increased number of "fails" in the U.S. market (Senior Supervisors Group 2009, p. 12).

To further explain the actions of beneficial owners that suspended their securities-lending programs, it is important to note that, for many years, participation in these programs was viewed by some fund managers as a low-risk activity that did not warrant careful monitoring or risk assessment. Indemnities provided by custodian banks, which were not all of the same quality or type, were sometimes misunderstood to mean that the programs could not incur losses, thus justifying their perceived low-risk status. However, as reinvestment into less-liquid, longer-term, and more risky assets lost value, and beneficial owners incurred losses (which, in most cases, were not covered by indemnities), they suspended their programs to reassess those risks. To further complicate matters, the commingled nature of some reinvestment accounts made the claims on assets much more difficult to determine. It wasn't clear how losses that were incurred on some short-term investments (such as Lehman Brothers commercial paper), as well as losses on investments in long-term securities that became illiquid, would be distributed. To avoid recognizing immediate losses, beneficial owners had to hold these investments to maturity or until the markets returned to more normal levels.

In markets and programs where cash wasn't widely accepted as collateral, as in Canada, for example, heightened counterparty risk following the Lehman Brothers bankruptcy created conditions that changed the perceived risk-to-return trade-off of securities-lending programs. Under these stressed market conditions, some beneficial owners found it prudent to suspend their programs, even if only temporarily.

Hedge funds began to question the viability of their prime brokers' operations and the legal status of their assets in the event of the prime broker's default. Related concerns arose regarding the practice of collateral rehypothecation by prime brokers.[8] Rehypothecation allows prime brokers to "on-lend," or post as collateral their clients' securities to another counterparty, unknown to the client. Clients were concerned that their assets could be held up in the event that the counterparty that came into possession of those assets went bankrupt. This was of particular concern during the period of heightened counterparty risk, prompting a re-examination of the associated risks. Those who considered forbidding or restricting rehypothecation had to weigh the risk-reduction benefit against an increase in transactions costs.

Anecdotal evidence suggests that, since early-to-mid 2009, many programs have been reinstated—some with revised terms to better match acceptable levels of risk. For example, according to the transactions data of custodian banks, the share of cash transactions declined from more than 25 per cent in early 2007 to an average of 16 per cent since mid-2009. Nonetheless, to prevent similar issues from arising in the future, some improvements are needed in the securities-lending market.

Regulatory Structure and the Outlook for the Future

Among the lessons learned from the financial crisis has been the need for increased transparency in securities-lending programs, improved disclosure, and information-sharing by agent lenders, as well as a better understanding of the risks and benefits of these programs by beneficial owners. The particular areas requiring improvements in disclosure and understanding relate to collateral eligibility, cash-reinvestment guidelines and the corresponding exposure to maturity mismatch, segregation of funds, and counterparty risk. One way to achieve these improvements is by developing a set of best-practice guidelines (CGFS 2010). The guidelines may be most effectively drawn up and implemented through the collaborative efforts of participants in the securities-lending market, including agent lenders, beneficial owners, and borrowers. Discussions among market participants brought together through various securities-lending associations would provide a good starting point.[9] However, enforcing and monitoring the implementation of such best-practice guidelines may be challenging.

Another possible reform could be the creation of a central clearing counterparty (CCP) for the clearing and settlement of securities-lending transactions. The CCP would help to mitigate counterparty risk, which was one of the underlying concerns leading to the suspension of securities-lending programs by beneficial owners. One such CCP, although limited to clearing equities-lending transactions against cash collateral, was launched in France in June 2009 as a joint venture by SecFinex (trading platform) and LCH.Clearnet (clearing house). Upgrades to accept non-cash collateral

8 Note that concerns about rehypothecation were specific to prime brokers, since custodian banks do not rehypothecate the collateral securities or other securities in their custody.

9 One such association is the recently formed Canadian Securities Lending Association. Available at <www.canseclend.com>.

are forthcoming, and the success of the CCP will be better judged once those are implemented. The feedback so far has been positive, and the volumes of cleared transactions are growing steadily (Ferguson 2010). Nevertheless, there is considerable debate among market participants on the relative pros and cons associated with a CCP for securities-lending transactions.[10] Some pros include reduced counterparty risk, fewer resources devoted to credit-risk evaluations, and savings (for some lenders) on regulatory capital charges. Market players who oppose this idea don't see a benefit to well-capitalized institutions in a predominantly relationship-based business where transaction flows are one-sided and program terms are not standardized.

Any future policy proposals and recommendations may have to address cash-collateral programs. During boom times, these programs increased the amount of leverage in the economy by investing cash into various credit instruments or the repo market. Under stressed market conditions, as described in the previous section, cash-collateral programs contributed to financial instability by reducing the demand for credit assets, leading to rapid deleveraging and negative asset-price spirals. To ensure financial market stability, such procyclical behaviour may need to be addressed, where required, and the efforts to do this effectively will likely continue in the future.

Changes in the regulatory regime as a means of improving the structure and functioning of markets may be somewhat challenging, since participants in the securities-lending market are subject to a diverse set of regulations and, in many cases, are governed by different regulatory bodies. For example, in Canada, federally regulated pension funds, provincially regulated pension funds, and mutual funds are all subject to different sets of regulations. Securities borrowers, such as banks, investment dealers, and hedge funds, all face different sets of rules and regulations (or none at all). Custodian banks, some of which are owned or co-owned by foreign financial institutions, are subject to Basel II regulatory capital rules that apply to the Canadian banks, and/or to other rules that apply to their foreign-parent institutions. Hence, in order to implement any changes, the fragmented nature of the regulatory structure requires collaboration and coordination among the regulatory bodies within Canada and internationally.

10 For more on this debate, see *Global Securities Lending* (2009) and ISLA (2009).

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