

Developments in the global securities lending market

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Securities lending plays an important role in supporting financial markets. For example, it can improve market liquidity, potentially reducing the cost of trading and increasing market efficiency. But by increasing the interconnections between institutions it can pose potential risks to financial stability, which are exacerbated by a lack of transparency in the securities lending market. Since the onset of the financial crisis, market participants have attempted to address some of these risks, and fundamental changes to market infrastructure are being discussed, such as the use of central counterparties. New regulations under way to improve the resilience of the financial system may also impact both the risks to financial stability from securities lending and its benefits.

Introduction

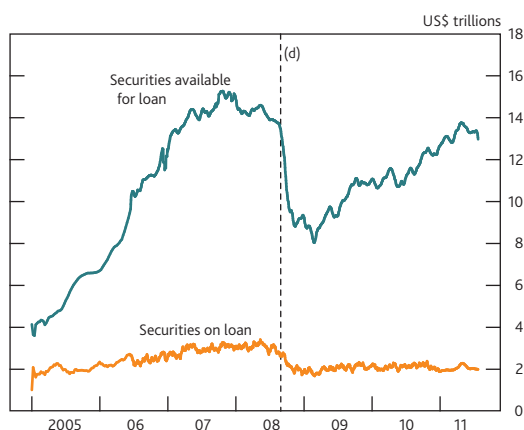
Securities lending is the temporary transfer of financial securities, such as equities and bonds, from a lender to a borrower. The lender usually requires the borrower to provide cash or securities to collateralise the loan.

Securities lending is important for financial markets. Institutions, such as banks, borrow securities for a variety of reasons. For example, it helps them facilitate trade settlements when a purchased security fails to be delivered but has already been sold on to another party. In this way, securities lending can improve market liquidity, potentially reducing the cost of trading and increasing market efficiency. Institutions also borrow securities so that they can use them as collateral in other transactions, such as repo or derivatives transactions. Lenders, including pension funds and insurance companies, typically lend out their securities to generate an additional income on their asset portfolios.⁽²⁾

The global securities lending market is large. At its height in early 2008, around \$3.5 trillion of securities were on loan (Chart 1); by way of comparison, this is equivalent to around 1.4 times the current market capitalisation of the FTSE 100 companies. After Lehman Brothers failed the market contracted, partly due to some lenders reducing their securities lending activity due to concerns about the credit risk of borrowers. Around \$2 trillion of securities are currently on loan.

The first section of this article provides an overview of securities lending, describing the key features of securities

Chart 1 Global securities available for loan and securities on loan^{(a)(b)(c)}



Sources: Data Explorers and Bank calculations.

- (a) Data are based on market value of securities.
- (b) Chart uses daily data that are converted to a ten-day moving average.
- (c) Securities available for loan are all securities that beneficial owners have specified they are willing to lend subject to specific transaction terms.
- (d) Lehman Brothers announced bankruptcy on 15 September 2008.

loans and the main participants in the market. The second section discusses not only the benefits of securities lending but also the potential risks to financial stability. The third section discusses recent developments in securities lending, including the impact of regulation on the market and the potential introduction of new market infrastructure, such as central counterparties.

(1) The authors would like to thank Brunello Rosa for his help in producing this article.
 (2) The Bank plays an active role in facilitating discussion among the major participants in the UK securities lending market as chair of the Securities Lending and Repo Committee (SLRC). The terms of reference for the Committee and the minutes from the meetings can be found on the Bank's website at www.bankofengland.co.uk/markets/gilts/slr.htm.

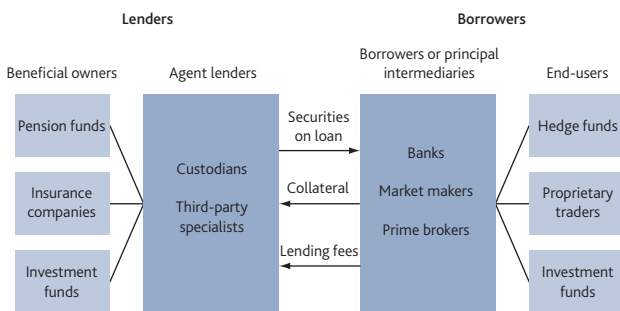
Overview of securities lending

The securities lending market involves various types of financial institutions. This section describes the key participants in the securities lending market and their motivations for borrowing and lending securities. It also discusses the basic mechanics and key features of a securities lending transaction.

Participants in securities lending

Figure 1 shows the main participants and their relationships in a securities lending transaction.

Figure 1 Participants and relationships in securities lending



Borrowers

Borrowers of securities are typically large financial institutions, such as banks. Often they act as a 'principal intermediary' and borrow securities on behalf of smaller institutions such as hedge funds.

Institutions borrow securities for a variety of reasons, including:

- (1) **To facilitate the buying and selling of securities.** This activity is commonly known as 'market-making'. Market makers stand ready to buy and sell securities on a regular and continuous basis. In order to meet customer demand to buy securities, they hold an inventory of securities and also borrow securities.
- (2) **To facilitate trade settlement.** Settlement failure occurs when a seller fails to deliver a security, such as an equity, to a buyer on an agreed date. This may happen due to incorrect settlement instructions being exchanged between parties. In some cases, the institution that is waiting to receive the equity has already agreed to sell it on. In order to avoid the costs and penalties that can arise from failing to deliver the equity, they can borrow an equivalent equity in order to complete the transaction. Once the equity is received from the original seller, this can be delivered to the securities lender in order to terminate the securities loan.
- (3) **To access high-quality and liquid collateral.** Institutions, usually banks, may borrow high-quality and liquid

securities, such as government bonds, against which they pledge relatively lower-quality and less liquid securities, such as corporate bonds or asset-backed securities (ABS), as collateral. These transactions are often referred to as 'collateral upgrade trades'. The borrowed securities can then be used to raise cash in the repo market or as collateral for swap and derivative transactions.

- (4) **For trading strategies.** An institution may borrow securities to sell them — so-called 'short-selling'. Short-selling is used in a number of trading strategies. For example, an investor may think that an equity is overvalued and expects its price to fall. They borrow and then sell the equity, with a view to buying it back later at a lower price, in order to make a profit from the price difference.

Other motivations for short-selling include arbitrage and hedging strategies. In an arbitrage strategy, an investor believes there is an opportunity to profit by exploiting a price difference between two instruments that should have identical values. For example, this may occur when an equity trades on different exchanges in different currencies.

Hedging can involve taking a short position in a security to protect against specific potential losses from an investment. For example, an investor in corporate bonds may want to protect themselves against general interest rate moves. The investor can hedge this risk by short selling government bonds against their investment in corporate bonds. In this way, their exposure to general interest rate risk is reduced.

- (5) **Dividend tax arbitrage.** This involves an institution lending their security to a borrower in a jurisdiction subject to more favourable dividend tax treatment over a dividend payout period. The tax benefit is often shared between the lender and the borrower.

Lenders

Lenders of securities are commonly referred to as 'beneficial owners'. Beneficial owners are typically investors such as pension funds and insurance companies. They lend out securities to generate additional income on their asset portfolios. This income can help offset expenses associated with maintaining a portfolio of assets, such as paying a custodian to safeguard and administer the assets.

According to Data Explorers, revenue from securities lending peaked at \$14.3 billion in 2008, falling to \$6.5 billion in 2010. This represents a small proportion of beneficial owners' total returns but for some beneficial owners, such as exchange-traded funds (ETFs), their securities lending activities can represent a significant proportion of their revenue.

According to Deutsche Bank, securities lending may account for up to a third of ETF providers' revenue.⁽¹⁾

Beneficial owners usually use an agent lender, such as a custodian or third-party specialist, to manage their securities lending programmes. Agent lenders sometimes offer the beneficial owner protection against losses on their lending activity. Some large beneficial owners manage their own securities lending programmes.

Mechanics of a securities lending transaction

The key steps in a securities lending transaction are:⁽²⁾

- (1) The loan is initiated and terms are agreed between the lender and the borrower. The agent lender usually negotiates the terms on behalf of the beneficial owner. Terms may include the duration of the loan, borrowing fees, eligible collateral and collateral margins.
- (2) The lender delivers the securities to the borrower and the borrower delivers the collateral to the lender.
- (3) During the life of the loan, the collateral required from the borrower may vary as the values of the collateral and of the securities lent change.
- (4) When the loan is terminated, securities are returned to the lender and the collateral is returned to the borrower.

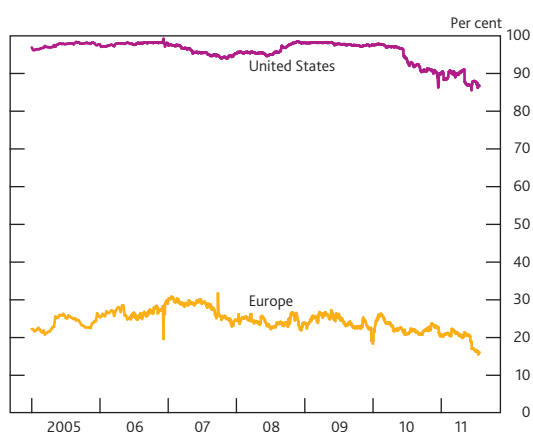
Key features of securities loans

There are four key features of a securities loan transaction: collateral, ownership of securities, duration and fees.

Collateral

Securities loans are collateralised by cash or other types of securities. In Europe, securities, such as bonds or equities, are mostly taken as collateral in preference to cash (**Chart 2**).

Chart 2 Percentage of securities on loan against cash collateral



Sources: Data Explorers and Bank calculations.

In the United States, cash is usually taken as collateral. This difference in accepted collateral between regions may be partly due to variances in regulation. For example, the US Securities and Exchange Commission Rule 15c3-3 prevents broker dealers from pledging equity as collateral when borrowing equities.

In both Europe and the United States, cash collateral is reinvested in other assets. The box on page 228 discusses how the nature of these cash reinvestments have changed over the past few years.

The market value of the collateral posted is typically greater than that of the lent securities. This margin (sometimes referred to as a 'haircut') is intended to protect the lender from potential loss should the borrower default and reflects the potential variation in both the market value of the collateral and of the securities lent. To maintain sufficient levels of overcollateralisation, the collateral and the lent securities are valued regularly and the margin required is increased or decreased accordingly. The beneficial owner's agent lender usually manages this process.

As has been seen during the financial crisis, margins on securities loans and other types of securities financing, such as repo, can increase significantly. This could be due to lenders' concerns about individual borrowers or concerns about certain types of collateral. For example, typical margins on AAA-rated structured products increased from around 10% in June 2007 to 100% in June 2009. The practice of increasing margins as institutions or markets become more stressed is procyclical and can lead to further stress.⁽³⁾

Ownership

In most securities lending transactions, legal ownership over both the securities on loan and the collateral is transferred between the beneficial owner and the borrower. Transactions are structured such that the economic benefits associated with ownership, such as dividends and coupons, are paid back to the original owners. But a beneficial owner surrenders other rights of ownership, such as voting rights, when lending equities. If the beneficial owner wants to vote on equities it has lent out, it needs to recall them.

Duration

Securities are usually lent on an open basis with no fixed maturity date. This gives beneficial owners the flexibility to recall their securities at any time if, for example, they are concerned about the creditworthiness of the borrower or if

(1) For further information, see Deutsche Bank (2011).

(2) More detail on the mechanics of a securities lending transaction, including examples, are shown in Faulkner (2010).

(3) For further discussion on the procyclical nature of margin requirements and the role of macroprudential policy in addressing this, see Haldane (2011) and a paper by the Committee on the Global Financial System (2010).

they want to vote on the equities. Borrowers may also find it useful to be able to return the security at any time, if, for example, they decide to terminate a short position that utilises the security. In some cases, loans will be agreed for a specified term, giving borrowers more certainty that they will be able to cover their short positions, for example.

Lending fees

In return for lending its securities, the beneficial owner receives a fee from the borrower. Lending fees can vary greatly depending on the nature, size and duration of the transaction and the demand to borrow the securities.

Agent lenders are compensated for their services through an agreed split of the lending fees. Fee splits may vary depending on a number of factors such as the services provided by the agent lender and the type and size of the beneficial owner's portfolio of assets.

Securities lending and repurchase agreements

Securities lending is part of a larger set of interlinked securities financing markets. Repurchase agreements (commonly known as 'repo') and securities loans collateralised against cash are economically equivalent. A repo is the sale of securities for cash, with an agreement for the seller to buy back the securities at an agreed future date. Similar to securities loans, in a repo transaction the legal ownership of the securities passes from the seller to the buyer and the economic benefits are paid back to the original owners of the securities.

But there are two key differences between a securities loan and a repo:

- (1) **The purpose of the transaction.** Securities loans are usually motivated by an institution's demand to borrow a security for purposes such as short-selling or trade settlement. Repo is sometimes used to borrow or lend securities, but generally the motivation is to borrow or lend cash.
- (2) **Transaction structure.** In a repo transaction there is an outright sale of the securities accompanied by a specific price and date at which the securities will be bought back. Securities loans are often open-ended, which makes them more flexible for lenders and borrowers.

Securities lending and financial stability

Securities lending plays an important role in supporting financial markets and brings positive benefits to the financial system. But some characteristics of securities lending can create fragilities that may pose risks to financial stability.

Benefits of securities lending

Market liquidity

Securities lending can improve market liquidity, potentially reducing the cost of trading and increasing market efficiency. This enables better price discovery and can reduce price volatility, which can facilitate financial institutions and non-financial companies in raising funding and capital and also helps investors to buy and sell securities.

By creating access to securities already outstanding in a market, securities lending has the effect of increasing the total supply of securities available to support activities such as market-making and trade settlement.

Market makers stand ready to buy and sell securities on a regular and continuous basis, which can enhance market liquidity. Being able to borrow securities helps them to meet customer demand for securities. In 2008, market contacts said that the reduction in securities available for loan (**Chart 1**) — alongside capital pressures on banks acting as market makers to reduce their balance sheets and inventories of securities — led to a reduction in market-making activity. This contributed to impaired market liquidity for certain types of securities and exacerbated funding issues for banks and non-financial companies.

Securities lending improves the reliability of the trade settlement process as institutions' ability to borrow securities helps to reduce settlement failures. This can enhance market liquidity indirectly as it contributes to efficient settlement and investor confidence when trading.

Funding for banks

Banks hold securities in order to make a return and because they act as market makers for clients who want to buy and sell securities. They sometimes fund these securities by pledging them as collateral in the repo market. But for some securities, such as ABS, this may be difficult as providers of funding, such as money market funds, may have restrictions on the type of collateral they accept. Instead, banks can undertake collateral upgrade trades that allow them to swap these securities for higher-quality and more liquid securities, such as government bonds, that can be used to access funding in the repo market.

There are two potential funding advantages to banks from these types of transactions. First, provided the combined cost of the repo interest rate and the securities lending fee is less than other types of funding, the bank can obtain cheaper funding. Second, this represents an additional funding source for a bank, allowing them to diversify their funding. The wider the range of funding sources a bank can access, the lower the impact from a shock to one of these funding sources. Also, repo markets for high-quality securities are typically more robust than markets for repo of low-quality securities.

Reinvestment of cash collateral from securities lending

Beneficial owners that accept cash collateral pay interest to the borrower and therefore reinvest the cash to make a return. This activity is referred to as 'cash collateral reinvestment' and is particularly prevalent in the United States where cash collateral is more commonly accepted in securities lending transactions.

Cash collateral reinvestment during the financial crisis

Global cash collateral reinvestments were around \$2.5 trillion at their peak in mid-2007. Agent lenders managed the majority of these cash reinvestments. They often managed 'pooled' programmes that grouped cash collateral from a number of beneficial owners together and reinvested the cash according to a set of investment guidelines regarding credit and liquidity risks. Some large beneficial owners that managed their own securities lending programmes reinvested their own cash collateral.

In order to generate returns, many cash collateral reinvestment programmes invested in relatively long-duration and illiquid assets such as floating-rate notes and asset-backed securities (ABS) (Table 1). This created a maturity mismatch between their assets and liabilities as most securities borrowers could return the borrowed securities and request their cash collateral back at any time.⁽¹⁾

Table 1 Cash collateral reinvestments^{(a)(b)}

Per cent	2007 Q2	2011 Q2
Debt securities and securitisations		
Asset-backed securities	26	6
Floating-rate debt securities	19	14
Fixed-rate debt securities	0	7
Money market and repo		
Repo	26	33
Certificates of deposits and bank deposits	15	18
Commercial paper	6	9
Money market funds	2	11
Other	5	2

Sources: Data Explorers, Risk Management Association and Bank calculations.

(a) Data are based on a sample of US dollar cash collateral reinvestment programmes with total assets \$809 billion in 2011 Q2.

(b) Asset-backed commercial paper is included in asset-backed securities.

Some of these programmes have made large losses as a result of declining market values of these securities during the financial crisis. Some have also suffered liquidity problems as beneficial owners attempted to terminate their securities lending programmes and borrowers demanded their cash collateral back. In some cases, managers of cash reinvestment programmes put 'gates' on withdrawals to limit the outflows and give them time to unwind the cash reinvestments in an orderly way.

The case of American Insurance Group (AIG)

AIG ran a particularly risky cash collateral reinvestment programme, with a significant maturity mismatch. It lent out securities owned by its insurance subsidiaries. At its height, AIG's cash collateral reinvestment portfolio was around \$76 billion. Around 60% of AIG's cash collateral was invested in residential mortgage-backed securities (RMBS).

As the credit concerns about AIG deepened, borrowers of AIG's securities began terminating their transactions, demanding a return of cash collateral. As that collateral was tied up in illiquid securities, this meant that AIG had great difficulty meeting these requirements. Alongside a number of other issues, this contributed to the failure and subsequent bail out of the group.⁽²⁾

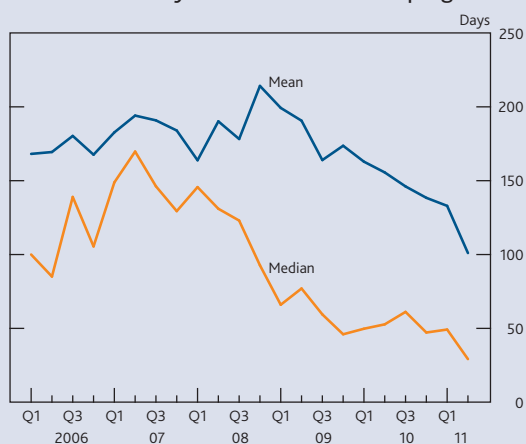
Recent developments in cash collateral reinvestment

Cash collateral reinvestment programmes have been scaled back to around \$1 trillion. This is due to fewer securities on loan (Chart 1) and less appetite to take on cash reinvestment risks (Chart 2).

Beneficial owners still involved in cash collateral reinvestment have taken some steps to reduce the risks of their programmes. According to market contacts, larger and more sophisticated beneficial owners have shifted away from pooled reinvestment programmes towards 'segregated' programmes. These segregated programmes can reduce the risk of liquidity runs from other beneficial owners. Also, beneficial owners can specify the investment guidelines for the programme.

Most beneficial owners have adopted more conservative investment strategies, for example by reducing their investments in ABS (Table 1), and reducing the maturity of their investments (Chart A).

Chart A Maturity of cash reinvestment programmes^{(a)(b)}



Sources: Data Explorers and Risk Management Association.

(a) Data are based on a sample of US dollar cash collateral reinvestment programmes with total assets \$809 billion in 2011 Q2.

(b) Based on final maturity of investments.

(1) The role of cash collateral reinvestment programmes in the shadow banking sector are discussed in Tucker (2010) and Pozsar *et al* (2010).

(2) For further information on the bailout of AIG see the US Congressional Oversight Panel report (2010).

Risks from securities lending

Interconnectedness⁽¹⁾

Financial transactions that result in chains of counterparty exposures increase interconnections within the financial system. Securities lending creates additional interconnections between various types of financial institutions, as shown in **Figure 1**.

During episodes of stress, interconnectedness can cause contagion when problems at one or few institutions are transmitted across networks, impacting counterparties and their customers. Lehman Brothers, for example, was a large borrower in the securities lending market and often borrowed securities on behalf of clients, such as hedge funds. When Lehman failed, most beneficial owners were able to liquidate their collateral and replace their lost securities. But a small number of beneficial owners struggled to liquidate their collateral and made losses. And hedge funds that had borrowed securities via Lehman found it difficult to reclaim the collateral that they had pledged to Lehman in order to borrow securities. This was partly due to rehypothecation of collateral by Lehman, a practice that involves using collateral posted by their clients as collateral for other purposes.⁽²⁾

Losses for some securities lending participants led to more widespread counterparty concerns in the securities lending market. This prompted some participants to reduce their activity in the market, some entirely. This contributed to the significant fall in securities available for loan in late 2008 (**Chart 1**).

Additional interconnections are made when beneficial owners reinvest cash collateral in debt instruments of financial institutions and corporates. The box on page 228 discusses the issues associated with reinvesting cash collateral during the crisis.

With long counterparty chains, individual participants may also find it difficult to understand and price the risks to which they are exposed. The resulting opacity can be a source of risk in itself.

Opacity

The following considers two types of opacity in securities lending — price and risk exposures.

Transactions are usually conducted bilaterally rather than through a centralised exchange, which leads to limited transparency on the fees paid for borrowing securities. Contacts report that the majority of market participants use data from companies that collect and distribute data on the securities lending market. Their data include information on fees and volumes of certain types of securities. But there are relatively little publicly available price data.

Lack of easily available data on pricing can lead to inconsistent pricing methodologies being adopted and can lead to uncertainty. In turn, that can potentially lower volumes, particularly during periods of high volatility.

Securities lending may also create opacity in risk exposures when the institutions involved, as well as other market participants, such as their clients and counterparties, do not fully understand the risks to which they are exposed to as a result of these transactions.

Market contacts have noted that beneficial owners may not have fully appreciated the counterparty and liquidity risks involved in their securities lending programmes before the financial crisis. For example, it became evident during the financial crisis that some were not aware what collateral they held.

Market participants, such as investors in investment funds and banks' counterparties, may also find it difficult to understand the risk exposure of institutions due to securities lending. Many institutions do not publish data on the size of their securities lending exposures. This might make it more difficult for participants to assess the risk of these institutions.

In the case of banks, for example, that are large borrowers of securities, securities lending can lead to a significant amount of assets being pledged as collateral. This means that a portion of their assets are 'encumbered' — another party has legal claim over them. The proportion of a bank's balance sheet that is encumbered in this way may be unknown to other market participants. But encumbrance can be an issue for unsecured creditors of a bank as it means they have fewer assets to lay claim on if the bank fails. So in a stressed situation, depositors and creditors may be more uncertain about being repaid, potentially leading them to withdraw their funding pre-emptively.

Developments in securities lending

Market-led developments

This section outlines some of the initiatives that aim to improve the understanding of and mitigate the risks associated with securities lending.

Review of securities lending programmes

Market contacts report that many beneficial owners have reviewed their lending programmes in light of the financial crisis and have introduced more conservative guidelines. These guidelines include changes to the collateral they are willing to accept, the list of counterparties they will lend to and the

(1) The Bank also discussed the risks associated with interconnectedness and opacity in the box entitled 'Bank funding resilience: a whole balance sheet approach' on page 36–37 of the June 2011 *Financial Stability Report*.

(2) For further reading on rehypothecation, see Singh and Aitken (2010).

investment parameters of cash collateral reinvestment programmes. Beneficial owners' reporting requirements from their agent lenders are also said to have increased.

Education of beneficial owners

Uncertainty around the risks of securities lending is thought to be one reason behind the withdrawal of some beneficial owners from lending programmes during the financial crisis. As a result, the industry has sought to improve beneficial owners' understanding of securities lending. For example, under the auspices of the Securities Lending and Repo Committee (SLRC), a group of financial trade associations have published educational materials for beneficial owners.⁽¹⁾ It is hoped this initiative will improve beneficial owners' understanding of the risks involved in securities lending.

Revisions to legal agreements

Industry-standard legal agreements for securities lending transactions have been updated. For example, the Global Master Securities Lending Agreement includes revisions to the process of valuing collateral in the event of default, something that became problematic after Lehman Brothers' bankruptcy when limited trading in some securities created problems in determining market prices. But adoption of new agreements by securities lending counterparties has been slow.

New market infrastructure

The costs and benefits of fundamental changes to market infrastructure, such as central counterparties (CCPs) and trade repositories, are being considered by market participants.

CCPs⁽²⁾

A CCP is an institution that sits between parties to a financial transaction, acting as the counterparty to each one. It can help manage the risks involved in a transaction, in particular counterparty credit risk.

CCPs are widely used in the repo market and some derivatives markets, such as interest rate derivatives. They are also used for some securities lending transactions, mainly in the United States and more recently in Europe.

In a securities lending transaction involving a CCP, the lender and borrower deliver the securities and collateral to the CCP, who then delivers them to the final parties. The CCP collects margin from the lender and the borrower. This protects the CCP if the borrower fails to return the securities or the lender fails to return the collateral.

Provided CCPs are highly robust, they can potentially provide benefits to the securities lending market. By acting as a secure node within a network of financial institutions, they can reduce system-wide counterparty credit risk. And CCP margin methodologies, which are generally more standardised and transparent, should lead to more continuous and predictable

changes in margin requirements. This can reduce the likelihood of sudden collateral calls on borrowers, which can cause them liquidity problems.

Despite the potential systemic benefits of CCPs, contacts have suggested some impediments to their use. These include the additional costs to lenders of providing margin to CCPs. Such costs may contribute to a collective action problem to using CCPs, as an individual participant's decision to use a CCP may not take into account the systemic benefits.

Trade repositories

A trade repository is a central data centre where details of transactions are reported. Data are collected on a trade-by-trade basis, on the type of transaction, notional value, currency, maturity and counterparties.

Trade repositories can improve the transparency of a market, helping authorities and market participants to see the pattern of risk and flows across markets. There are global trade repositories for credit, interest rate and equity derivatives. Transparency in the securities lending market could also be enhanced through the introduction of a trade repository.⁽³⁾

Impact of regulation

Regulatory authorities around the world are changing their regulatory frameworks to improve the resilience of the financial system. There is currently little new direct regulation of the securities lending market but changes to the regulation of institutions, including banks and insurers, may have an indirect impact on the market. This section discusses the possible impact on the securities lending market from some of these regulatory changes, and the potential financial stability implications.

Basel III

Basel III is the new global regulatory standard governing banks' capital and liquidity that aims to improve the resilience of banks. The new rules are due to be phased in from 2013 through to 2019.

A significant element of Basel III is to increase capital requirements to recognise counterparty credit risk more adequately. Banks borrowing or lending securities may need to allocate more capital to capture more accurately the risk of a counterparty defaulting. This could make borrowing securities more expensive for banks, which could in turn increase the cost of providing services such as market-making and the cost of collateral upgrade trades for bank funding purposes.

(1) The educational materials can be found on the Bank's SLRC web page at www.bankofengland.co.uk/markets/gilts/slrc.htm.

(2) CCPs for securities lending is also discussed in Howieson and Zimmerhansl (2010) and the International Securities Lending Association (2009).

(3) The benefits of a trade repository for the securities lending market was also discussed by Tucker (2011a,b).

Collateral swaps

Traditional collateral upgrade trades

A 'collateral upgrade trade' is a type of securities lending transaction that involves an institution, usually a bank, borrowing high-quality and liquid securities, such as gilts, in return for pledging relatively less liquid securities, such as residential mortgage-backed securities (RMBS). The bank may use the high-quality securities they have borrowed to raise cash in the repo market or as collateral for swap and derivative transactions.⁽¹⁾

Collateral swaps

Market contacts and the Financial Services Authority (FSA) have reported increased demand from banks in the past year to undertake a type of collateral upgrade trade, referred to as a 'collateral swap'. The key feature is that the transactions are arranged for a minimum term rather than being open to recall like traditional securities loans. Collateral swaps are typically based on pools of securities, allowing substitutability both of the securities lent and the collateral pledged. This gives each party some flexibility around which assets to use at any time.

Key drivers of these transactions are banks' liquidity and funding requirements. The FSA's Individual Liquidity Adequacy Standards and forthcoming Basel III liquidity rules, require banks to hold a stock of liquid assets to improve their resilience to liquidity stress. These transactions provide banks with another way to access a stock of such liquid assets. Some transactions are arranged for a few years while others are based on regulatory parameters, such as the 90-day FSA liquidity stress periods.⁽²⁾

Banks can also use these transactions to help fund their lending activities. For example, mortgage loans packaged into RMBS can be exchanged for more liquid securities that can be used to raise funding in the repo market. This achieves funding in an equivalent way to long-dated repo transactions.⁽³⁾ The Bank's Special Liquidity Scheme (SLS) allowed banks to pledge relatively illiquid securities in return for liquid Treasury bills, that banks could then use to finance themselves.⁽⁴⁾ Indeed, the expiry of the SLS in January 2012 has been an important driver for collateral swap transactions which can be seen in some respects as providing a private sector replacement for the SLS.

At the same time, Basel III liquidity regulations, like the current FSA Individual Liquidity Adequacy Standards, will require banks to hold a buffer of liquid assets to help protect against liquidity risks. Market contacts expect increased demand by banks to borrow eligible liquid assets from securities lenders on a long-term basis to include in these buffers. This is discussed further in the box above.

Potential lenders in these transactions are pension funds and insurance companies, who hold large portfolios of government bonds. These institutions are less susceptible to liquidity runs and hold these assets more for their high credit quality and long duration (to match the profile of their liabilities) than for liquidity purposes, for which their requirements are typically low relative to banks.

The volumes of these transactions are thought to be low at present, but contacts report significant interest and hence, there is potential for a substantial increase in volumes.

Potential implications for financial stability

This transfer of liquidity from pension funds and insurance companies to the banking system may be viewed as a positive development. By providing another funding and liquidity source for banks this may improve banks' resilience.

But these transactions may also be associated with risks to financial stability. In particular, the limited disclosure around these transactions may add to issues around opacity; as a form of secured funding they add to the encumbrance of banks' assets; and because the transactions are subject to margining, the value of the funding they provide may vary potentially introducing procyclicality to the provision of lending they support. In addition, their recent appearance means the robustness of these transactions during stress is untested as is the capacity of the lender of securities to manage a default in a way that does not entail costly externalities for the financial system.

In the June 2011 *Financial Stability Report*, the Bank's Financial Policy Committee advised the FSA that its bank supervisors should monitor closely the risks associated with opaque funding structures, such as collateral swaps.

(1) Collateral upgrade trades were also discussed in the Bank's 2006 Q4 *Quarterly Bulletin*, see box entitled 'Collateral upgrade trades' on page 371.

(2) The FSA recently published a guidance consultation document on collateral swaps for liquidity purposes, see Financial Services Authority (2011).

(3) Long-dated repo transactions were discussed in the 2010 Q4 *Quarterly Bulletin* on page 254.

(4) More details on the SLS are available on the Bank's website at www.bankofengland.co.uk/markets/sls/index.htm.

Solvency II

Solvency II is a European directive that aims to enhance the solvency of insurers in order to protect policyholders and beneficiaries. The details of Solvency II are still being finalised and implementation is expected to begin in 2013.

Market contacts note that Solvency II may lead to insurers having to hold additional capital against counterparty

exposures to banks. This could increase the amount of capital held by insurers against securities loans. The additional cost of transactions may reduce insurers' incentive to lend securities and could potentially be passed on to borrowers of securities through higher fees.

Dodd-Frank Act⁽¹⁾

The Dodd-Frank Act in the United States aims to improve the stability of the United States' financial system. Some rules began to be implemented from late 2010 with others subject to longer implementation periods.

Under the Dodd-Frank Act, banks will be prohibited from speculating with their own capital (so-called 'proprietary trading'). Proprietary trading desks often borrow securities as part of their investment strategies. Banks have already started closing down their proprietary trading desks, reducing their demand to borrow securities.

New requirements in the Dodd-Frank Act and Basel III may also lead to increased collateral requirements for margining over-the-counter derivatives transactions. Joint research by Morgan Stanley and Oliver Wyman estimated that counterparties will need an additional \$2 trillion of high-quality collateral to meet new margin requirements.⁽²⁾ This is expected to increase demand to borrow high-quality securities.

Short-selling restrictions

A number of countries have introduced restrictions on short-selling in the past few years. Recently, France, Italy, Spain and Belgium introduced temporary restrictions. The aim of these restrictions is to limit potentially destabilising falls in asset prices. To the extent that the restrictions do reduce the amount of short-selling that takes place, it could reduce demand to borrow securities.

Implications for securities lending

The net impact of these new regulations on securities lending is difficult to estimate but could be significant. Higher capital requirements for banks and insurers should make participants more able to withstand negative shocks and reduce the risks that arise from interconnections. But it could also reduce the supply of — and demand for — securities loans, diminishing some of the benefits to the functioning of the financial system associated with securities lending.

Conclusion

Securities lending has an important role in improving market liquidity. This helps markets operate more smoothly and efficiently, which enables better price discovery and can reduce price volatility. But some characteristics of securities lending can lead to fragilities that may reduce those benefits and create risks to financial stability. In particular, securities lending increases interconnectedness between institutions, which — together with opacity around the pricing and exposure to risk associated with it — can amplify contagion in times of stress.

Since the onset of the financial crisis, market participants have sought to address some of the concerns around securities lending. New regulation on institutions involved in securities lending may also address some of the risks, particularly counterparty credit risks. New market infrastructure may also help.

The Bank will continue to monitor developments in the securities lending market.

(1) Dodd-Frank Wall Street Reform and Consumer Protection Act.

(2) Morgan Stanley and Oliver Wyman (2011).

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