The opinions expressed in this document are solely my own (Irving Klubeck), and not necessarily the opinions of Pershing LLC, BNY Mellon or the SIFMA, and are intended to give an overview of the US equities securities lending marketplace.

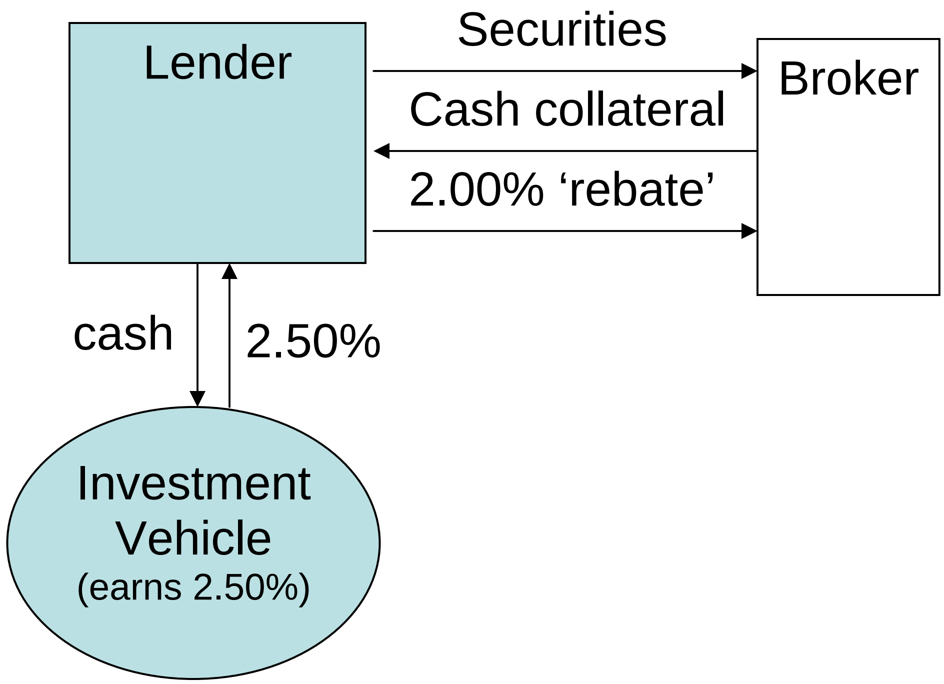
Origins and Basics of the Securities Lending Market

The securities lending market in the US developed in the late 1960s and early 1970s as a means to reduce delivery failures and associated settlement risks at broker-dealers. Prior to the creation and widespread adoption of DTC, securities trades were settled in physical form. The many varied reasons for delays in settlement that exist today were far greater in the late 1960s and 1970s. Broker-dealers would borrow securities that were needed to facilitate settlement. As more securities became DTC eligible, the practice of borrowing securities to effect timely settlement also migrated onto the DTC platform. In 1981 the Department of Labor amended its Prohibited Transactions Exemptions to allow pension funds to lend securities more freely which dramatically increased the supply of securities available for lending. Within the DTC system, special delivery ‘reason codes’ were created to allow broker-dealers to identify and record securities loans and borrows separately from trade settlements. Today, the overwhelming majority of securities lending transactions continue to be processed through DTC utilizing much the same ‘reason codes’ logic. However, technology advancements (whether built and provided by vendors, or internally developed) have allowed great advances in the ability of broker-dealers and lending agents to automate securities lending transactions. This automation has been critical in allowing the borrowers and lenders of securities to keep pace with the growth and expansion that has taken place in the capital markets over the past 40 years.

The securities lending process in its simplest form involves a securities lender and a securities borrower. Each business day, a broker-dealer makes a determination that they need to borrow securities (permitted purposes for borrowing securities is discussed further in this document). The broker-dealer/borrower then contacts potential securities lenders searching for the desired securities. Once found, financial terms of the securities loan/borrow are agreed upon (such as the amount of collateral to be given to the securities lender to secure the loan [typically the collateral is in the form of cash and is at least equal to the market value of the securities being loaned], the daily percentage of over-collateralization of that loan [typically 102% of the market value], the interest ‘rebate’ rate the securities borrower will receive from the lender on the cash collateral given by the securities borrower then reinvested by the securities lender). Securities loans are typically transacted on a ‘same-day’ basis, meaning the borrower will contact and borrow the securities from the lender all within the same business day. Much of what is described above now happens electronically and without human intervention. For a relatively small portion of the daily securities borrows, broker-dealers and lenders will actually speak to one another to find needed securities and negotiate terms.

Diagram of lending flows

Diagram 1 – Typical securities lending flow (easy to borrow)

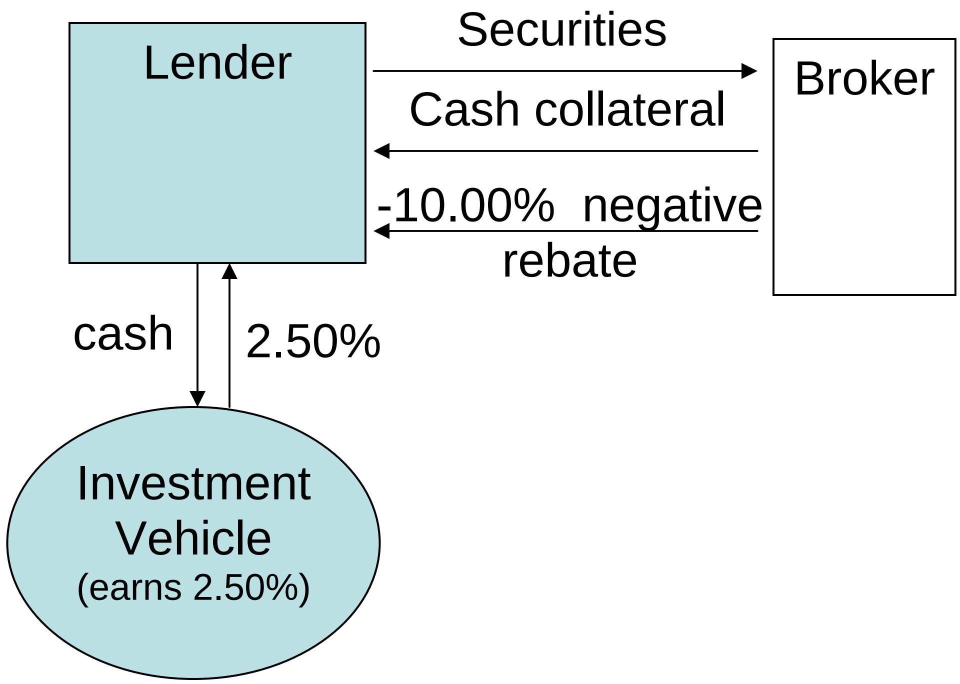


The securities lender delivers the securities to the securities borrower versus cash collateral. The securities lender reinvests the cash in approved instruments such as notes or bonds which earns the lender an interest rate return. The lender pays a portion of the cash reinvestment interest earned to the securities borrower, known as a ‘rebate.’

The rebate rate paid to the securities borrower is a function of supply and demand. The securities lender wants to lend the securities at the lowest rebate rate possible to maximize their profit, and the securities borrower wants to earn the highest rebate rate possible for the same reason. If the securities being borrowed are readily available from multiple securities lenders (most S&P 500 securities are easy to borrow due to their extensive number of shares outstanding, being widely held, and relatively low short interest), the rebate rate will likely be close to the cash reinvestment rate (2.00% rebate rate compared to the 2.50% cash reinvestment rate in the diagram above).

If the securities are in high demand and not widely held, the laws of supply and demand will dictate a lower rebate rate be paid to the securities borrower. In the current low interest rate environment, many securities that are not easy to borrow are resulting in no rebate being paid to the borrowing broker-dealer or a negative rebate rate where the broker-dealer pays additional interest to the securities lender for the privilege of borrowing the securities. See diagram (2) below.

Diagram 2 – Typical lending flow (Hard to Borrow)



In the above diagram (#2), the laws of supply and demand have dictated that the lender (trying to maximize their profits) can lend a specific security at a 'negative' rebate of 10% - meaning the securities borrower must pay the lender 10% interest on the cash collateral for the privilege of borrowing these 'hard to borrow' securities.

<u>Securities Lending Participants</u>

The major participants in the securities lending market are:

- Custodian banks who lend securities on behalf of their custodial clients (known as Beneficial Owners) such as mutual funds, college endowment funds, pension funds, central banks and the like. The custodial banks act as agent in the lending transaction.
- Third-Party Agent Lenders act in a similar capacity to custodial banks (lending on behalf of the beneficial owner), but do not act as custodian.
- A few Large Funds and Investment Managers have created and utilized internal staff to do lending, choosing to forego the services of custodial bank lending desks or third-party agent lenders.

Note :Custodial Banks and Agent Lenders are only permitted to lend securities not borrow securities (as outlined in the Securities Acts of 1933 and 1934).

- Broker-dealers are the only entities allowed to borrow securities. Broker-dealers must borrow securities pursuant to meeting the 'purpose test' prescribed by Regulation T (defined below under "Why securities are borrowed?"). Broker-dealers may also lend securities that are owned by the broker-dealer as well as unpaid-for securities purchased by customers of the broker-dealer under a margin agreement.

Why Would Someone Lend Securities?

Securities are lent as a means of creating an incremental interest profit for the lender. The agent lenders contract with beneficial owners to lend their securities. The beneficial owners earn the lion's share of the net interest profit in the transaction, sharing typically 20% to 30% of the profits with the agent lenders. This sharing arrangement is contracted in advance by the beneficial owner and the agent lender. The agent lender takes on a fiduciary responsibility to the beneficial owner to maximize their mutual profits. This responsibility drives the securities lenders to lend securities at the lowest rate possible for the longest time. Many beneficial owners had initially viewed securities lending revenues as a method of reducing or negating custodial fees charged by their custodial banks. With the continued growth of the securities lending market and the better information available to borrowers and lenders as to current securities lending rebate rates (thanks to market information service providers such as SunGard's Aztec and Data Explorers), returns to Beneficial Owners have increased and many Beneficial Owners now incorporate their securities lending revenues into their fund earnings.

Broker-dealers will lend securities they own or the unpaid-for securities of their margin customers as a means of reducing the financing expense incurred by the broker-dealer (in paying for their purchases or the loan of cash to the margin customer).

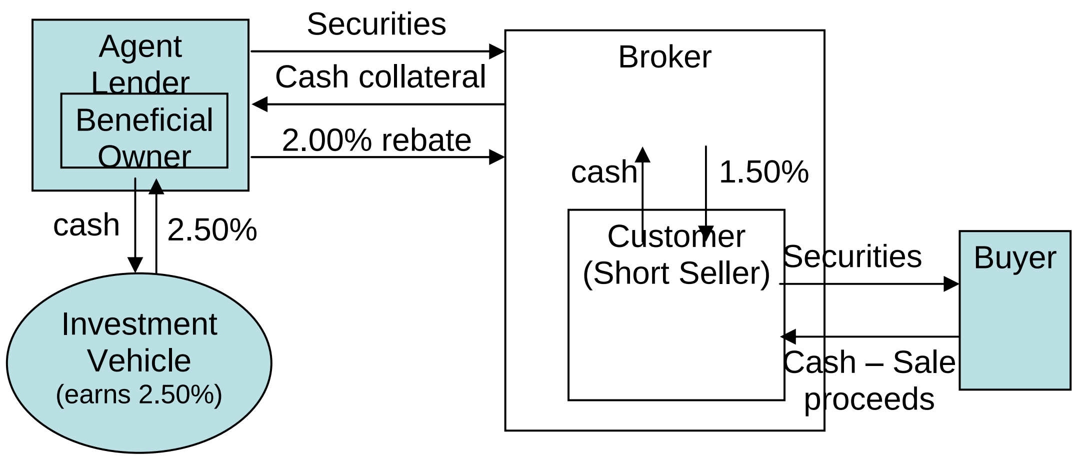
Why Would Someone Borrow Securities?

Securities are borrowed (pursuant to Regulation T) to meet customer segregation requirements, to facilitate delivery for timely trade settlement (from either long sales or short sales), or to allow the borrowing broker-dealer to further on-lend securities to another broker-dealer.

The ability of broker-dealers to borrow securities plays a critical role in supporting market liquidity (not solely in the equities markets but also in the options and futures markets where short selling may be used as a hedge to options and futures trading strategies), and mitigating counterparty settlement and market risk. Besides being a pre-requisite for short selling, an inability to borrow securities would result in increased capital charges for customer segregation deficits, increases in settlement failures which increases counterparty and ultimately market risk, and would eliminate the 'on-lending' market utilized by broker-dealers to source securities for lending/borrowing from counterparties with whom they may not have a lending agreement (in support of the two primary purposes designated under Regulation T; customer segregation requirements and failing delivery facilitation). In short, without securities lending and borrowing the trading markets would experience less liquidity and the settlement infrastructure would experience increased capital expenditures, elongated fails, and greater systemic risk.

When you add the beneficial owner and short selling transaction into the diagram, the cash flows and interest flows are further defined/realized.

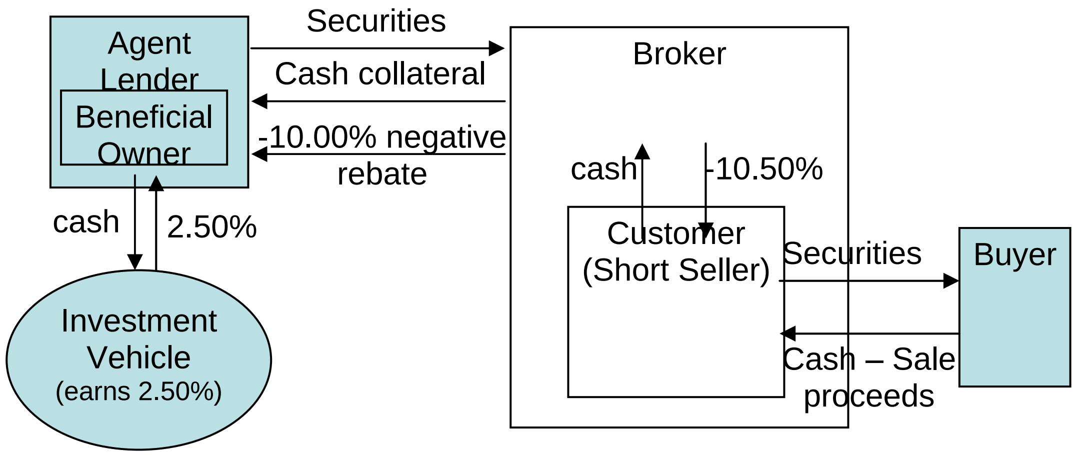
Diagram #3 Typical Securities Lending Flow (expanded) – Easy to Borrow



In the diagram above (#3), the broker-dealer is borrowing securities to facilitate settlement of a short sale by a customer. The proceeds of the customer's short sale is used by the broker-dealer to collateralize the securities borrow. The cash collateral is then reinvested by the agent lender/beneficial owner earning an interest return. The beneficial owner typically approves which instruments the agent lender is permitted to use/buy for the reinvestment of cash collateral. In the example, 2% of the 2.50% earned is given back to the borrowing broker-dealer as an interest rebate. The agent lender and the beneficial owner share the 50 basis points net interest profit (2.50%- 2.00%), with the majority of the 50 basis points going to the beneficial owner (typically 70 – 80 % of the spread is kept by the beneficial owner).

The securities borrowing broker-dealer uses the borrowed securities to make delivery to the buyer. The short customer in this example earns 1.50% of the 2.00% rebate earned by their broker-dealer. If the short selling customer is a large customer, they may demand more of the rebate earned. These customers can shop their short portfolio among broker-dealers looking for the best sharing arrangement, the same way a broker-dealer will shop among the securities lenders searching for the highest rebate rates.

Diagram #4 Typical Securities Lending Flow (Expanded) Hard to Borrow



In the final diagram (#4), the securities are 'hard-to-borrow' and therefore command a fee paid by the broker-dealer to the securities lender. The beneficial owner and the agent lender share the 12.50% net interest profit (2.50% + 10.00%). The broker-dealer makes 50 basis points (-10.00% + 10.50%). And the customer/short seller pays 10.50% fee (negative rebate) for the privilege of short selling this hard to borrow security. This 10.50% cost would be viewed as a cost of the short sale transaction by the customer.

Economically these sharing arrangements make sense. The beneficial owner and the customer/short seller are the parties taking the market risks by buying and selling the securities. These parties are the ones making the lion's share of the profit (or expense) on either end of the lending and borrowing equation.

Lessons Learned During the Financial Crisis

The brief period where pre-borrows were mandated for all shorts being transacted in 19 financial securities revealed the potential impact on capital and lending supply of enforcing or enacting any pre-borrow requirements. During the enactment of the Securities and Exchange Commission's Emergency Order (effective July 21-August 12, 2008), broker-dealers were required to pre-borrow securities (not just locate securities) prior to approving a short sale. Historically, less than 5% of located securities actually result in a short sale trade execution. This means that beginning July 21st, broker-dealers were required to borrow securities in anticipation of a short sale trade occurring. Since no cash was being collected by the broker-dealers to pay for the pre-borrows of securities (see cash flow depicted in diagrams #3 and #4), the broker-dealers had to pay for the pre-borrows out of their own capital or by pledging the pre-borrowed securities to a bank and borrowing the cash by way of a bank loan. This occurred in the midst of the capital/credit crisis when broker-dealers and banks were being very conservative and wary of extraneous cash lending.

Speaking for myself, in an ad-hoc process, inability to pass along pre-borrow fees

The next business day, broker-dealers would then need to return any unneeded pre-borrowed securities as mandated by Regulation T (if no short sale was affected), but would also have to begin the pre-borrow (rather than locate) process again for new short sale orders that day. The result was a flurry of superfluous operational activity within the broker-dealers as we scrambled to meet the new pre-borrow requirements and adhere to Regulation T. The needed pre-borrows (where short sales were executed) then remained borrowed until settlement date (three days later). The extra cost of pre-borrowing for three days also created a capital drain as previously described. Pre-borrows also reduced the overall liquidity of securities available in the securities lending market since (in theory and historically speaking) 95% of the pre-borrows enacted during this time were not needed to facilitate settlement. To compound matters, during this time it appeared that the need to raise cash might be a signal of financial weakness. The effect of pre-borrow financing required during the credit crisis had exactly the opposite effect (by forcing broker-dealers to raise additional cash).

During the financial crisis, from a securities lending perspective, I believe short selling investors were disadvantaged in that the process to locate securities or pre-borrow for short sale approval prior to execution took longer, and might have led to customers missing their intended investing opportunities. Additionally, as previously stated, securities lending liquidity was being drained which might have had a similar effect. Historical analysis has shown the ability to sell short helps create market liquidity. If short sellers were prohibited from participating in the market, it is possible that potential buyers could not find a market and would also be disadvantaged. In short, both the buy-side and sell-side of the market may be negatively impacted if short selling were curtailed or prohibited.

Securities Lending Regulation

I believe the securities lending market is fairly regulated today. It operates efficiently from an operational perspective, with the majority of the day to day transactions (new loans and borrows, returns of loaned securities, marks-to-market and rebate rate changes) occurring in a straight-through processing environment. Market exposure is mitigated by a mandatory daily marks-to-market process, which, for most borrowers and lenders happens first thing each business morning. With the advent of the Agency Lending Disclosure regulations and its October 2006 implementation, the last remaining credit and capitalization gaps were closed.

However, the role played by finders in the securities lending market needs to, and is being scrutinized. I believe the one clear remaining regulatory gap effecting the securities lending market is the lack of registration and oversight of finders. Pershing does not deal with finders but I can see the need for small firms with fewer securities lending relationships (and therefore access to a smaller supply of available securities), to consider utilizing finders. If finders are going to be brought into the mainstream of securities lending I believe they should be registered, capitalized, have standard guidelines and oversight as exists today with finders in the government fixed income markets.

The practice of transferring proxy votes with securities lending transactions might best be explained by examining Diagram #3. You will notice that the buyer of securities will be the ultimate recipient of the shares lent from the beneficial owner. The buyer expects to be able to vote the shares they have purchased assuming they do not lend their purchased securities (the way the beneficial owner has) or do not purchase the securities on margin (which may allow their broker-dealer to lend the unpaid-for shares). If the right to vote does not transfer with the securities loan to the borrower, and on to the buyer, the buyer would be in possession of securities and yet not own the right to vote those shares – which would be unmanageable and illogical. The current practice and premise of transferring the vote with the loan is the optimal solution and allows the ultimate holder of securities to vote. The dialogue implying that broker-dealers may borrow shares strictly to influence a proxy vote cannot occur is the broker-dealer is borrowing shares within and adhering to the guidelines of Regulation T. If the securities are being borrowed to complete a delivery or for on-lending, the broker-dealer will not be in possession of the shares once the delivery is completed. If the securities are being borrowed to meet customer segregation requirements, the borrowed securities are needed for a paid-for customer and the proxy vote would belong to that customer/owner on the books of the broker-dealer, not the broker-dealer themselves.

Customers who purchase securities on margin might receive less favorable dividend tax treatment if their securities are lent. The tax law changes effective in 2005 changed the dividend exclusion credit for individual shareholders by differentiating between qualified dividends and payments in-lieu of a dividend (substitute payments). By way of example, an individual lending securities over a dividend record date would receive the full cash dividend (let's say $100) but would be forced to recognize this substitute payment on their tax return as ordinary income (rather than as a qualified dividend which might be eligible for a lower tax rate). Some broker-dealers have taken it upon themselves to reimburse effected margin customers for the net tax impact. The concern is that a negative tax impact might dissuade customers from lending securities and thereby reduce available supply.

Finally, though it does not directly impact the securities lending practices, I would encourage the approval of the pending revised Prime Broker No-Action Letter. This update to the original prime broker no-action letter was written mainly to update the current prime brokerage practices to comply with Regulation SHO. I believe a number of the concerns stated in the sales order marking sections of Regulation SHO could be addressed if the prime broker no-action letter were enacted. Specifically, the ability for the executing broker and the prime broker to positively affirm the sale as being a long sale or a short sale would greatly clarify and codify this targeted aspect of the order marking process – and allow for reporting of discrepancies to SROs.

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