



INTRODUCTION

Securities lending programs have the ability to generate modest incremental revenue for investors. During most periods, risk of loss is minimal. However, during periods of market disruption, the potential for significant loss exists. Investors may find that controlled exposure to securities lending can provide added income with an acceptable risk level. The amount of income, and risk, in any securities lending program is significantly determined by how the borrowing collateral is invested.

OVERVIEW

In financial markets, broker/dealers facilitate investments in stocks and bonds by matching buyers to sellers. In some cases, a broker/dealer may have a willing buyer for a security, but no security to sell. This supply shortage may occur for several reasons:

- A previous seller may have defaulted or is late on delivery,
- The broker may expect to acquire the security from a future sale at a more favorable price, or
- The broker may have underestimated the demand for the security.

To allow broker/dealers to deliver securities they do not own, custodian banks and large endowments began “securities lending” programs in the 1970s. By using a securities lending service, a broker/dealer who is “short” a security (i.e., has agreed to sell a security he does not own) may borrow the security for immediate delivery. To protect the lender, the broker/dealer must provide collateral to cover the value of the borrowed securities while the loan is in place. In recent years, securities lending activity has been driven by hedge funds looking to sell securities short.

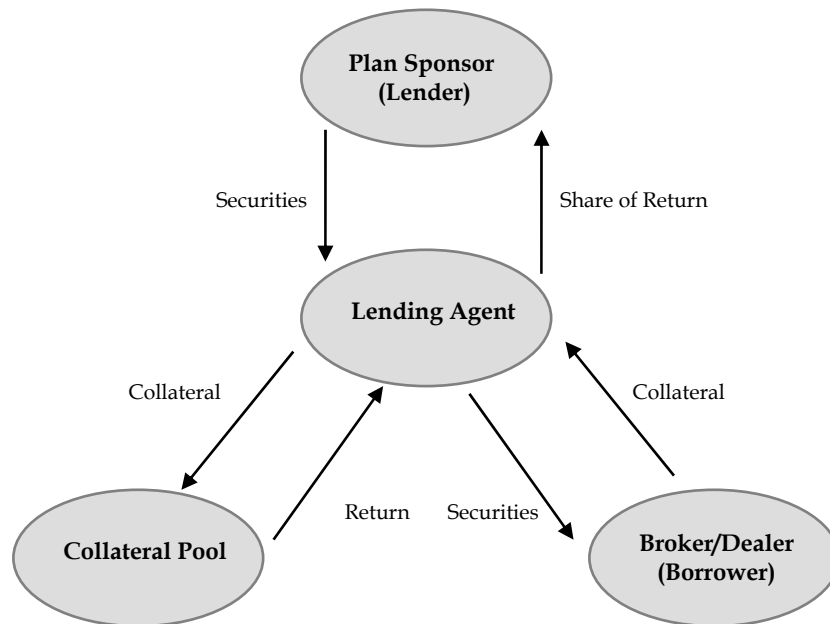
A securities lending program is designed to give plan sponsors an opportunity to earn incremental income from fully collateralized loans to selected borrowers. Plan sponsors generally participate through custom programs offered through their custodian bank or through large index fund providers who assume the role of lending agent. However, third parties may also provide such programs, some active managers may engage in securities lending, and some large plan sponsors operate their own programs.

MECHANICS OF SECURITIES LENDING

In the case of a custom program, a plan sponsor (e.g., a pension fund) allows the program provider/lending agent (e.g., a custodian bank) to take shares from the fund’s separate account portfolios and lend them to “approved” creditworthy broker/dealers who need shares. In return, broker/dealers are required to post collateral as an insurance against default—the inability to return the borrowed securities.

The collateral amount is typically set at a level greater than the borrowed securities, usually ranging from 102% for domestic securities to 105% for foreign securities. At the end of each market day, the custodian bank “marks-to-market” the loaned securities. If the price of the borrowed securities has increased, then the borrower must deliver additional collateral, and vice versa. Furthermore, the lending agent in general pays a “rebate rate” to the broker/dealer on its collateral; the rebate rate is typically negotiated at levels around the short-term risk-free rate, but can vary depending on the borrowing demand for a security.

Next, the custodian bank invests the collateral in a short-term fixed income investment strategy, often referred to as a “collateral pool,” while the securities are on loan. Once a broker/dealer no longer needs the borrowed shares, they are returned to the lending agent and thus to the plan sponsor’s portfolio. The lending agent then releases the collateral plus any due compensation to the broker/dealer. The potential for revenue lies in investing the broker/dealer’s collateral at a rate higher than the rebate rate.



Any profit earned is split between the plan sponsor and lending agent as determined at the outset of the agreement. Generally, the revenue split ranges from 90%/10% in favor of the plan sponsor to 50%/50%. Note that if the borrower uses non-cash collateral—such as other securities—the borrower pays the lending agent a fee or premium and there is no reinvestment of collateral nor any rebate fee paid to the borrower.

As the following table shows, the return generated from a securities lending program over a business cycle has varied by asset class. Note that the gross return is composed of two components: the utilization rate and the strategy return. The utilization rate is the percentage of the portfolio that is lent at any given moment. The strategy return is the return received through the investments in the collateral pool and the operational efficiency of the custodian bank, net of any rebate rate.

Annualized Securities Lending Income

Asset Class	Utilization Rate	Strategy Return	Gross Return	Gross Profit on \$100 million
Large Cap Stocks	4%	25 bp	1 bp	\$10,000
Small Cap Stocks	25%	55 bp	13.75 bp	\$137,500
Foreign Stocks	30%	80 bp	24 bp	\$240,000
Emerging Stocks	Varies	> 100 bp	N/A	N/A
U.S. Government Bonds	95%	30 bp	28.5 bp	\$285,000

Source: State Street Bank

Large capitalization domestic equity portfolios have generated approximately 1 basis point of gross lending profit per year. In contrast, small capitalization domestic equity portfolios have generated more than 13 basis points of gross lending profit per year. While foreign equity portfolios have generated 24 basis points in the past, these returns are expected to diminish as the utilization rate and strategy return decline to levels similar to those of domestic equity portfolios. Emerging markets have offered the best opportunities for strategy return, but as of 2009 the market for securities lending in emerging issues was still evolving. The highest utilization rate has been with U.S. government bond portfolios (e.g., nominal Treasuries and TIPS).

Gross Annualized Return during Recessions¹

Asset Class	Utilization Rate	Strategy Return	Gross Return	Gross Profit on \$100 million
Large Cap Stocks	7%	100 bp	7.0 bp	\$70,000
Small Cap Stocks	45%	150 bp	67.5 bp	\$675,000
U.S. Government Bonds	95%	325 bp	308.8 bp	\$3,087,500

Source: State Street Bank

Historically, the overall level of returns has varied dramatically during different economic cycles, as the above table demonstrates. For example, as short-selling becomes more significant during recessions (which are usually preceded and/or accompanied by bear markets), the utilization rate has typically increased for both large and small cap issues. Furthermore, the strategy return increased, primarily because spreads widen and the yield curve steepens during recessions (e.g., the strategy return on government bonds increased to ten times its normal level). On the other hand, during recoveries and periods of growth, gross returns have generally declined considerably. Thus, the highest returns in securities lending programs occur during the early stages of an economic slowdown, *assuming there are no meaningful write-downs on the invested collateral*. As the most recent downturn has demonstrated, the risk of write-downs during a recession can be both unanticipated and sizeable. We discuss this risk further in the next section.

¹ These general results can be extended to foreign and emerging stocks in the case of global recessions.

RISKS

There are several risks associated with participation in a securities lending program. The four main risks are:

- **Counterparty Risk:** The risk that the borrower defaults and does not return the borrowed securities. Occasionally, a participant will fail to return a borrowed security, thus forfeiting the collateral. This risk is amplified by the higher likelihood of default by the counterparty during turbulent markets. Program providers (e.g., custodian banks) seek to minimize this risk by screening borrowers and monitoring the value of the collateral carefully. They may also offer to indemnify (i.e., insure) the plan sponsor against counterparty risk.
- **Operational Risk:** The risk that the mechanics of the securities lending program are not adequately or properly monitored. For example, the program administrator may fail to adjust collateral requirements (i.e., mark to market), increasing the potential for loss if the counterparty were to default. This event has occurred rarely. Here, too, program providers may offer to indemnify the plan sponsor against operational risk.
- **Collateral Investment Risk:** The risk that the value of the invested collateral declines in value. This could occur if an issuer in the collateral investment pool were to default, if there is a substantial widening in credit spreads, or if an increase in interest rates causes the market value of the collateral investments to fall (as with any fixed income portfolio). The first event would result in a realized loss, while the latter two events would cause unrealized losses. These unrealized losses would become realized if the plan sponsor exited the program or if the plan sponsor (or an auditor) decided to mark these assets to market. To minimize this risk, program providers typically restrict the types of investments in which collateral may be invested to conservative short-term instruments. However, guidelines and investments will vary by manager and/or collateral pool.
- **Liquidity Risk:** The risk that the plan sponsor will not be able to retrieve its capital when requested. This could happen for one of two reasons related to the above risks. First, if the counterparty failed to return a borrowed security, it would be impossible to redeem that asset. Second, if losses in the collateral pool are significant enough (which can happen during a credit crunch), the program provider may impose a “gate,” or a restriction on the ability to redeem capital from the pool so that the provider does not have to sell collateral pool assets at a loss in order to meet withdrawal requests.

As noted above, some program providers offer to indemnify participants against counterparty risk and operational risk. They generally do so in return for a higher portion of the revenue split. The specific terms of securities lending contracts vary from provider to provider, as does the degree of indemnification. Investment performance risk, however, cannot be eliminated. Over the years, program providers have suffered losses in collateral pool investments (via both pooled and separate accounts) resulting from unfavorable interest

rate bets, declining credit ratings, defaults, and even rogue trading. In most cases, program providers have chosen to absorb the losses to preserve their business reputations. However, in 2008, most program providers had losses that they were unable or unwilling to absorb. Securities lending providers forced plan sponsors to either remain invested in the lending program or require investors/lenders who were exiting lending programs to recognize the losses. In addition, several commingled index funds that engaged in securities lending were forced to impose limits on redemptions. In short, positions that were once liquid were now illiquid.

Perhaps the most useful way to conceptualize the risk is to recognize that the value added in a securities lending program lies in “borrowing” assets at one rate, and aiming to “lend” the amount at a higher rate. The rebate owed, in effect, makes the lender “short” the risk-free rate. As a result, the potential for profit resides in successfully investing the collateral at a return greater than the risk-free rate. Like other fixed-income strategies, managers of the collateral pool can extend the overall time to maturity, invest in securities that possess added credit risk, anticipate spread movements, or attempt to exploit other opportunities. In these cases, however, the credit, yield, volatility, and duration risks are typically limited; by definition, to beat the risk-free rate, managers need to take on some added risk. Nonetheless, overall investment success will be due to both the skill of the investment manager (i.e., the program provider) and market conditions, just as in any other prospective investment.

In an environment of low interest rates and tight credit spreads, the income that can be earned from a securities lending program is reduced. The risks do not diminish, however. In fact, when credit spreads are tight, the program provider might invest in riskier securities in an effort to compensate for the diminished income level.

An important distinction should be made between the two most common securities lending programs a plan sponsor may experience. The first is a securities lending program that is run by the custodian and involves lending out securities held in separate accounts. In this type of program, the securities lent come from several different managers and investment strategies. In other words, the lending activity is diversified and less impacted by redemptions from a single portfolio. To a large extent, plan sponsors maintain the ability to liquidate assets and portfolios. The second type of securities lending exposure comes from investing in commingled index funds that engage in securities lending. In this case, the securities lent all come from the one index fund and the index fund manager has the ability to prevent or limit redemptions.

While both types of programs may experience losses in the collateral pool, the first type can have a moderate impact on a fund’s liquidity while the second type can significantly limit the ability to transact. For example, in 2008, many custodians put a “floor” in place that required that a minimum percentage of separate account assets be out on (or available for) loan. So the separate accounts were liquid, but only up to this point (i.e., the floor). In contrast, many commingled index funds that offered securities lending all but eliminated their investors’ ability to withdraw assets from these funds. In many cases, plan sponsors were limited to withdrawing between 2% and 4% of their assets per

month, no matter their liquidity needs. Such constraints clearly impair a plan sponsor's ability to rebalance or redeem for other spending needs.

OTHER ISSUES

Program providers claim to minimize disruption to the investment management process through software systems designed to integrate with the investment manager. However, if a portfolio manager wishes to sell a security that the plan sponsor has out on loan, there can be a delay in execution or settlement while the lending agent resolves the situation.

MONITORING

Securities lending programs should be monitored, just like any other investment program. Plan sponsors should perform periodic reviews of the collateral pools backing a lending program and performing due diligence on program managers. Ideally, these collateral pools will be invested conservatively, as the manner in which this collateral is invested is a primary determinant of the risk in the overall program. Most importantly, plan sponsors should limit their overall securities lending exposure to ensure that they maintain adequate levels of liquidity to fund ongoing expenditures several years into the future.

In an effort to provide some transparency to the market, in 2009 S&P launched securities lending indices. The indices reflect the average rebate rate for all of the stocks in the S&P 500, S&P 400, and S&P 600 indices. S&P also developed "spread indices" to measure the potential income from securities lending programs. The spread index is calculated by subtracting an index's aggregate securities lending rebate rate from the Federal Funds open rate. The result is an approximation of the potential revenue available to a lender, before assuming any collateral risk. Both S&P indices strive to provide some insight and clarity to what has traditionally been an opaque marketplace. The indices can provide lenders and borrowers with an estimate as to the current demand, rebate rate, and potential income from lending different types of securities. The indices could also be used to benchmark a plan sponsor's securities lending program or gauge the level of collateral risk inherent in a program.

For example, assume the S&P 500 securities lending spread index indicates potential earnings of 5 basis points above the risk free rate. If a plan sponsor's securities lending program earned 8 basis points from lending large cap securities, it may indicate that the collateral pool is investing at a rate well in excess of the risk free rate (Fed Funds) and may be investing in risky assets. If a plan sponsor's lending program only earned 3 basis points on its large cap securities, it may indicate that the custodian is not competitive in negotiating attractive rebate rates. In general, a conservatively invested collateral pool should make little to no excess return when compared to the benchmark.

Because these indices are relatively new, they should not be relied on in the same manner as a traditional index benchmark. However, they can provide another tool for measuring and monitoring a lending program.

CONCLUSION

Historically, securities lending programs represented a form of leverage with an uneven risk/reward tradeoff. Given that much of the income is shared with the program provider and most of the collateral is invested in short-term bonds, the upside of a securities lending program is limited. In favorable environments and for strategies with high utilization rates, it can offset investment management fees. However, it has the potential to experience surprisingly substantial losses and impair a plan sponsor's liquidity at times when this is particularly disadvantageous (e.g., bear markets or credit crunches).

Therefore, Meketa Investment Group recommends against participating in most securities lending programs for portfolios that are otherwise used to provide stability and liquidity, such as investment grade bonds. By excluding high grade bond investments from securities lending, a plan sponsor can ensure liquidity in bear market environments. In general, any participation in a securities lending program should be made with the recognition of the needs of the plan sponsor.