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Securities Lending

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Abstract

This paper, originally released in August 1989 as part of a Federal Reserve Bank of New York series on the U.S. securities markets, examines loans of Treasury and agency securities in the domestic market. It highlights some important institutional characteristics of securities loan transactions, in particular the common use of agents to arrange the terms of the loans. While we note that this characteristic sets securities lending apart from most repurchase agreement (repo) transactions, which occur bilaterally between a borrower and a lender, we observe that repo and securities loan transactions ultimately serve the same important economic purpose—to cover short positions used for hedging or arbitrage in related cash markets. The data used here, though largely informal, were provided by knowledgeable market participants.

Key words: securities lending, repo

Lipson: Federal Reserve Office of Employee Benefits. Sabel : Shearman and Sterling LLP (current affiliation); Federal Reserve Bank of New York (affiliation at time of paper's first release). Keane: Federal Reserve Bank of New York. Address correspondence to Frank Keane at frank.keane@ny.frb.org. Given renewed interest in the securities lending market, this paper is being rereleased in full as a staff report so that it will be more accessible to researchers. A summary of the paper was previously published in two issues of the now-discontinued *Journal of Commercial Bank Lending*: volume 72, number 6 (February 1990) and volume 72, number 7 (March 1990).The views expressed in this paper are those of the authors and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

PREFACE

This paper is one of a series of papers on various aspects of the securities markets in the United States prepared by the Federal Reserve Bank of New York. The primary authors of this paper are Paul C. Lipson of the Federal Reserve Employees Benefits System and Bradley K. Sabel and Frank Keane of the Federal Reserve Bank of New York. The authors express their appreciation to Lawrence M. Sweet of the Bank and Rakesh K. Bhala, a summer associate of the Bank's Legal Department, for their assistance. The authors also express their appreciation to many industry participants, individually and through their trade associations, who reviewed and commented on earlier drafts of this paper. The primary authors, of course, are solely responsible for any errors that remain.

August 1989

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SECURITIES LENDING

I Executive Summary

This paper examines the practice of lending securities. The primary focus is on the lending of Treasury and Agency securities in the domestic market.[1] Offshore activities and the lending of other securities are briefly discussed in the Appendices.

Securities lending is not a single business. The lending of each kind of security (Governments, stocks, corporate bonds, and mortgage-backed securities) has its own conventions and procedures. These pose risks to participants that are often quite different from instrument to instrument. Because of this diversity, general statements about securities lending are not made easily. Instead, we have tried to document "basic" transactions and identify the corresponding risks borne by participants. We have described securities lending as a separate and distinct activity from the repurchase agreement market whenever possible. Ultimately, however, it may be more practical to view securities loans and repurchase agreements as parts of the same market -- the collateral market. The data marshaled to support these observations is largely anecdotal, but has been received from knowledgeable individuals active in trade associations.

A securities loan typically involves three parties:

- Lenders supply securities for loans.
- Borrowers use those securities for trading or operational purposes.
- Agents arrange securities loans.

The lender is usually a long-term investor, such as a pension fund, endowment, foundation, or an insurance company. The lender's incentive to supply securities is fee income with minimal, or at least controlled, risk. The borrower is usually a broker/dealer in need of

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[1] Throughout this paper, the terms Treasury security and Government security are used interchangeably.

securities either to implement an investment strategy, such as covering a short position, or for operational purposes, such as avoiding a fail-to-deliver. The agent is usually a commercial bank with extensive custodial operations. The agent (or agents) provide two services: custody of the lendable securities and arrangement of the terms and conditions of the loan. The agent may also indemnify the lender for certain losses that might result from the transaction.

On December 31, 1987, domestic securities worth an estimated $45 billion were out on loan. Approximately 60 percent were Treasury and Agency securities; 30 percent were domestic equities, and the remainder were corporate bonds and other securities.[2]

A typical loan of Treasury securities is initiated by a government securities dealer who seeks to borrow a specific issue. The dealer will telephone several, and frequently many, banks that have agreements to lend Treasuries with their trust or custody customers. The dealer will pay a fee for the use of the specified securities and pledge other securities as collateral. The amount of the fee and the form of collateral are negotiated with the agent bank. The market value of the pledged collateral is conventionally set at 102 percent of the market value of the securities loaned. Cash and letters of credit, as well as securities, may be used as collateral. Although the loan's term is conventionally open-ended, loan fees and collateral are repriced daily.

Many lenders employ an agent in these transactions, although a few large pension and endowment funds lend directly. The agent collects and marks-to-market the securities pledged as collateral, collects the fee from the borrower, and may also indemnify the lender against default by the borrower. As compensation for these services, and to offset the

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[2] Statistics on securities loans are not available from published sources. Our estimates were based upon conversations with market participants. Data reported by broker/dealers on their FOCUS reports to the SEC support the anecdotal findings.

associated operating costs, the agent typically splits the fee with the lender. Agents also search for borrowers and monitor their creditworthiness.

Securities lending, especially as it relates to government securities, appears to have matured in the 1980s and now involves the largest domestic securities firms, banks and pension funds. The dollar amount of loans outstanding and variety of lending arrangements makes this activity an important element in the functioning of several financial markets. Securities loans expedite short positioning and reduce fails-to-deliver. The Group of 30 noted in its report on clearance and settlement systems in the world's securities markets, published in March 1989, that securities lending is recommended as a method for achieving final settlement in securities markets. Also, securities lending provides an additional source of income for the banking industry and participating lenders.

The lending process itself has weathered the stock market crash of 1987 and the volatility of the debt markets that followed it. Global lending and the immobilization and lending of mortgage-backed securities promises new profit opportunities. On the other hand, margins on domestic lending activity have generally narrowed over the past two years. This has come at a time when many agents and borrowers have committed more resources (staff, hardware and software) to the business. There is no consensus opinion on why margins have narrowed, but competitive pressures are probably at work. There has also been an increasing incidence of direct lending, according to some industry participants. Such activity might accelerate if lenders, especially large insurance companies and pension funds, gain access to broker screens listing dealer securities loan requirements.

Finally, the impact of the new Risk-Based Capital Guidelines on securities lending activity remains to be seen. These guidelines, which are discussed in detail below, will probably raise agents' costs because capital must be set aside for indemnification. The ability of agents

to persuade lenders to accept lower fee income, forgo indemnification, or accept an altered version of indemnification will determine the future form of loan transactions involving agents.

II Securities Loans Described

Securities lending transactions may differ with respect to the kind of securities on loan, means of revenue generation, and forms of collateral. The four basic types of lending transactions are:

1. Borrow v. Pledge
2. Borrow v. Cash
3. Borrow v. Letter of Credit
4. Borrow Program

In determining which type of lending transaction to use, the borrower will probably have a preference based upon the sought-after collateral. However, borrowers are likely to defer to the lender's requirements and might even be willing to create a new transactional form to satisfy a significant lender.

Borrow v. Pledge. In a borrow v. pledge securities loan transaction, the lender accepts other securities as collateral. The securities posted as collateral can be either similar or dissimilar to the loaned securities. For instance, a government securities borrowing can be collateralized by other governments, or agencies, or mortgage-backed securities.[3]

As is the case with most domestic securities loans, borrow v. pledge loans are typically collateralized at 102 percent of loan value. Loans of international equities are collateralized at 105 percent of loan value. While collateral margins are open to negotiation, participants rarely vary from these norms.

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[3] Prudent lenders will seek collateral whose price volatility is similar to the loaned securities; however, there is no strict requirement of like securities in this transaction type. Through the use of a bank letter of credit, other types of securities may also serve effectively as collateral. See the discussion below at Section III.C.3.

In this transaction, the lender is paid a fee upon return of the borrowed securities. Traditionally, the amount of this fee was about 50 basis points.[4] Recently the typical fee has narrowed to around 25-35 basis points. In general, the fee is related to the spread between the repurchase ("repo" or "RP") rate for general collateral and the reverse repurchase ("reverse repo" or "RRP") rate for the loaned security.[5] In theory, if the fee were larger than the RP-RRP spread, the securities borrower could reduce its funding costs by borrowing cash in the RP market and "lending" these funds against the desired securities in the RRP market. Similarly, if the fee were smaller than the RP-RRP spread, the lender could improve his earnings by lending the security against cash in the RRP market and investing the proceeds in the RP market. In practice, however, the securities loan fee does not always equal the RP-RRP spread. Borrowers, for instance, might be willing to pay a larger fee in return for the confidentiality of a securities loan transaction over a RRP.[6] At the same time, lenders might not always find a demand for their collateral or not have access to the RP market. As a result, they accept a smaller fee than the benchmark RP-RRP spread.

This type of loan transaction probably accounts for 25 percent of the lending market in government securities, down from 40-45 percent a few years ago. Much of the relative decline in usage of this type of transaction results from the stronger relative growth of the borrow v. cash transaction, rather than an absolute decline.

Borrow v. Cash. Some participants described this transaction type as the most popular form of securities loan, accounting for about half of all lending in the government

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[4] That is, one-half percent annually of the par value of bonds borrowed.

[5] A full explanation of this relationship is provided in Chapter VI, Pricing Securities Loans.

[6] The benefit of confidentiality can have substantial value to a dealer with a large short position in a particular security. If other dealers were aware of this position they might attempt to squeeze the dealer who is short by hoarding the outstanding supply of that issue.

securities market.[7] This type of securities loan resembles a RRP transaction in that specified securities are borrowed against cash. Although this transaction type is functionally equivalent to the RRP transaction, it differs in price quotation terminology: in a securities loan the securities borrower (that is, cash lender) receives a "rebate" for "lending" cash; in an RRP transaction, the securities borrower (that is, cash lender) receives interest on its cash loan. In both cases, however, the implicit fee "paid" to borrow securities equals the spread between the interest rate (or "rebate") received by the securities borrower and the generally higher interest rate paid by the securities borrower for obtaining cash in the RP market.

For securities borrowers, this transaction type fits more easily into general financing activity, which probably accounts for much of its increased popularity. This is particularly true for matched-book activity. From a lender's perspective this transaction type offers several advantages. The chief advantage for the lender is that the lender and its agent can attempt to maximize profits through investing the cash proceeds at money market rates that are generally higher than RP rates. Secondarily, cash is a more liquid form of collateral than pledged securities, at least so long as the borrower meets his obligation to tender more cash if required by the mark-to-market process.[8]

In this transaction type, the securities borrower negotiates a "rebate" rate on his cash collateral in exchange for the desired security. The securities lender surrenders the desired security and pays the "rebate" rate at the loan's maturity. In the interim, the securities lender (that is, cash borrower) invests the cash collateral and attempts to earn more than the standard

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[7] However, at least one large borrower prefers to avoid this transaction type in favor of either a RRP or a borrow v. pledge securities loan.

[8] Setting of the borrower's rebate and the lender's cash management opportunities will be discussed at length in Chapter VI of this paper under pricing considerations. However, the gist is that the lender or its agent hopes to earn more than the general RP rate in managing the cash collateral.

fee arrangement of the borrow v. pledge. As is typical of domestic lending transactions, 102 percent collateral is required by the lender in this transaction type.[9]

Borrow v. Letter of Credit. In this transaction, the securities borrower obtains an irrevocable letter of credit ("LOC") as collateral for the loan. The lender instructs its clearing bank to deliver the requested securities to the borrower and keep them on loan as long as the LOC exceeds 102 percent of the market value of securities loaned. The lender receives a fixed fee per loan, much like the pledge transaction. However, the fee is usually lower in this type of transaction (i.e., 20-25 basis points). The fee is lower than in the pledge transaction because (1) the borrower pays for the LOC, (2) there may be less liquidity risk should the borrower default (the LOC may be more liquid than pledged securities), and (3) the credit quality of the bank may be superior to that of the borrower.

Although this transaction has existed since the 1960s, its use accounts for less than 10 percent of all government securities lending today. The allure of a borrow vs. LOC may be further damaged because LOCs require capital support under the Risk-Based Capital Guidelines.

Borrow Program. The newest of the transaction types, the borrow program presently accounts for about 15 percent of the government lending market. This transaction type is also becoming popular in the less developed mortgage-backed securities lending market, partially because it is also a convenient way to borrow when pledging esoteric or illiquid collateral. It is unique among transaction types in that its fee structure is not based on the value of the securities that are actually loaned. Instead, under a borrow program a lender sells the right to borrow from a portfolio of securities for a period of time, typically on a monthly or annual

[9] Some borrowers prefer to pledge 100 percent collateral when pledging cash, as this is the convention in the RP market. Moreover, when these borrowers do remit 102 percent cash collateral they increase the lender's "rebate" rate by a few basis points to obtain a return on their excess collateral.

basis. The fee negotiations are conducted at the beginning of the period, with fees typically ranging from 15-30 basis points of the par value of the securities loaned. While the fee is set at the beginning of the period, it can be applied in at least two ways; (1) the fixed fee may be applied to the volume of loans entered over a given period, with payment occurring at monthly intervals, or (2) the fixed fee may be applied to the size of the portfolio made available for loan, with payment occurring as an initial lump sum.[10]

Another noteworthy feature of this transaction type is the characteristic presence of a tri-party bank. The tri-party bank is not necessary, but it adds additional comfort. This comfort is sought because of the generally complex nature of collateral valuation and margin maintenance for borrow program collateral. In borrow programs, dealers typically pledge mortgage securities as collateral for loans of government securities. The pledged mortgage collateral is almost always in many more pieces than an equivalent amount of Treasury securities; thus, the operational tracking of mortgage principal and interest payments, and mortgage collateral margin maintenance, requires additional effort. For fees ranging from two to 4-1/2 basis points, the tri-party bank will assume this burden. Dealers always pay the tri-party bank's fee in an effort to induce lenders to enter into this transaction type. Tri-party banks usually limit their liability by contract to simple negligence, though they are willing to assume a higher degree of responsibility upon payment of a higher fee, usually 10 basis points.

Where lenders enter programs directly with the borrower, the agent's absence provides much of the economic incentive to the lender who no longer has to split fees. The lender may also be attracted by the lump sum fee arrangement, in that revenue can be readily

[10] In general, readers should remain mindful that borrow programs are structured in many different forms, making all generalizations about this transaction type tentative.

anticipated.[11] As is typical in all lending transactions the lender is still free to turn over the portfolio throughout the lending period under a borrow program.[12]

A representative from a large borrower pointed out an interesting use of government borrow programs. Some dealers use borrow programs to finance long positions in mortgage-backed securities rather than using borrow programs strictly to finance short positions in governments. Of course, a single borrow program can be used in both ways.

Borrow programs finance long mortgage positions when used in conjunction with a government RP. First, dealers structure a borrow program through which they can borrow governments and pledge mortgage securities as collateral. In structuring programs for this purpose, dealers attempt to acquire general government collateral rather than "special" collateral, as their primary aim is to finance a long mortgage position rather than a short government position. By seeking general collateral instead of special collateral dealers seek to minimize the cost of the borrow program.

Once such a borrow program is in place, a dealer can finance long mortgage positions, on an ongoing basis, by arranging government RPs with settlements corresponding to the settlement of a purchased mortgage security. The cash from the RP is used to purchase mortgage securities. The mortgage securities are posted as collateral for the loan of government securities through the program. In completing the transaction, the borrowed governments are sent out as collateral on the government RP.

The cost of financing a mortgage security purchase through this method can be viewed as the government RP rate plus the borrow program fee. Thus, long mortgage positions

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[11] However, a lender may also suffer substantial opportunity costs if the assets in its portfolio become scarce during the program.

[12] Diagrams of the mechanics of each of the four transaction types are attached at Appendix D.

can be financed at the government RP rate plus 15-30 basis points, with the size of the spread a function of conditions in the government securities collateral market.

Use of borrow programs in combination with government RPs may also present an arbitrage opportunity for mortgage RP market participants. If the spread between the mortgage RP and government RP rates exceeds the borrow program fee, dealers could arbitrage by replacing the mortgage purchase with a mortgage RRP.

If the spread between mortgage RP and government RP rates is less than the borrow program fee, mortgage security purchases could be made more cheaply by using a mortgage RP. It should be noted that this second instance exposes participants to an opportunity cost, instead of presenting an arbitrage opportunity. Despite this possible opportunity cost, entering borrow programs to facilitate financing of long mortgage positions remains attractive to mortgage dealers, as the programs provide both a stable source of financing as well as a potential arbitrage opportunity. Thus, government borrow programs provide some linkage between pricing developments in the government and mortgage RP markets.

III The Business

A. Domestic Activity

A wide variety of securities are lendable:

1. Treasuries
2. Equities
3. Agencies
4. Corporate bonds (high-grade)

5. Mortgage-Backed securities (usually Ginnie Mae's)

6. Foreign securities

Securities lending has been a "hidden activity" insofar as there is no publicly available sources on the number, dollar value and terms of such loans. Some information is collected from bank agents by bank regulators on Call Reports, but these data are too aggregate to be useful for analysis. The commingling of securities loans with other contingent liabilities (such as standby letters of credit, etc.) appears to be a common problem in this regard. Some information is also collected from broker/dealer borrowers on FOCUS reports filed with their designated self-regulatory organization ("DSRO"), usually the National Association of Securities Dealers or a stock exchange. (The U.S. Securities and Exchange Commission receives a tape from each DSRO of FOCUS data.) Again, these data are difficult to analyze because they include securities loans for a variety of instruments and terms. Lenders may disclose securities lending income, if it is material, on their Series 5500 filings with the Internal Revenue Service and U.S. Department of Labor. (Governmental plans under the Employee Retirement Income Security Act ("ERISA") are exempt from those filings.) However, no information is collected from lenders about their agreements and outstandings.

Three trade associations are active in securities lending matters: One represents agents and the other two represent borrowers. The agents' group is the Securities Lending Committee of Robert Morris Associates (Philadelphia, Pa.) ("RMA"). RMA is the national organization of bank credit officers. Although they have provided the Securities Lending Committee with an organizational umbrella, RMA's primary focus continues to be the sharing of credit information (via well-known industry financial ratio handbooks). The major New York and Chicago banks are well-represented on the steering committee of RMA's Securities Lending Committee.

The borrowers' groups are the Securities Lending Committee of the Securities Industry Association ("SIA") and the Public Securities Association ("PSA"). SIA is a national organization of broker/dealers. The group lobbies DSROs on behalf of its diverse membership and has been particularly active in streamlining settlement rules. In the securities lending area, the SIA has also sought to reduce collateralization levels, broaden the scope of eligible collateral and achieve greater uniformity in loan contract provisions. The PSA, an organization of government and municipal bond dealers, provides a forum for borrowers on many of these matters.

B. Mechanics

The mechanics of the borrow v. cash transaction type are similar to the mechanics of the RP/RRP transaction. In a conventional RP transaction, one party seeks to borrow money and is willing to put up securities as collateral and to pay interest to the lender of funds. At maturity the borrowed funds, plus interest, and collateral are returned to the counterparties. A RRP is essentially the same transaction but is initiated by the money lender: the lender seeks out a counterparty in need of cash, lends the cash, and obtains securities, either of a specified type or unspecified, as collateral; the cash plus interest and the collateral are returned to the counterparties at maturity. In both cases, the securities borrower obtains the securities he desires and the cash lender earns interest on the funds.

While RP/RRP transactions can be described in terms of each counterparty's desire to borrow or to lend cash, they can also be viewed as being driven by the desire to borrow or to lend securities. From this perspective, the parallels between a RRP and the borrow v. cash securities loan become unmistakable.

In a RRP, the initiating party may focus on either the lending-of-cash aspect or the obtaining-of-collateral (that is, securities borrowing) aspect. To discern which is the prime

motivation, one can look at the interest rate charged. If the rate is in line with market interest rates for the term of the loan (i.e., the RP rate), the initiating party is probably focusing on the cash-lending aspect of the transaction. If, however, the RRP rate is well below the comparable RP rate, the initiating party is probably focusing on the securities-borrowing aspect of the transaction.

The securities used as collateral can also indicate the motivation of an RRP. The RRP marketplace is two-dimensional in that RRP loans can be made against either general (unspecified) collateral, or particular (specified) collateral. The RRP market for specified securities is also referred to as the specials market. In a RRP for general collateral, the cash lender does not specify the collateral it receives, whereas in the specials market the cash lender specifies the desired security. If the RRP is in the general collateral market, the initiating party's focus is on lending cash and maximizing the interest earned. If the RRP is in the specials market, the cash lender is willing to accept a lower interest rate in order to obtain the desired collateral.

A borrow v. cash securities loan transaction type is economically and mechanically equivalent to a RRP in the specials market: in both cases the initiating party's focus is on borrowing securities rather than lending cash.[13] The differences between the two transactions are essentially legal and accounting distinctions.

The mechanics of a borrow v. pledge security loan type differ from a borrow v. cash. In a borrow v. pledge there are two securities transfers, whereas there is only one in a borrow v. cash.

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[13] This view is supported by a broad definition of the specials market, in which specials are any securities the dealer is short. Thus, the market price of the collateral may not be very different from the price of general collateral, but the dealer would be willing to endure a price concession for the desired collateral if the market price became special.

The securities lender is paid a fee upon return of the securities. As described above, this fee is almost always the same as the spread between the RP and RRP rates for the same securities. In light of this pricing relationship, borrowers choose between a borrow v. pledge loan or a RP/RRP transaction based upon legal and accounting considerations rather than for economic reasons. Some of a dealer's customers are legally prohibited from engaging in repurchase transactions and rely upon the borrow v. pledge transaction type. Such customers include municipalities, pension funds and insurance companies.

The borrow program's mechanics are similar to the mechanics of the borrow v. pledge with one important exception -- fee structure. While the borrow v. pledge fee is paid transactionally, upon a loan's maturity, the borrow program fee may be received as an initial lump sum payment before any securities are lent or on a monthly billing cycle. This difference arises from the non-transactional nature of the borrow program transaction type, as the total fee is based on either the fixed fee times the volume of securities lent or the fixed fee times the securities made available for loan, rather than varying security by security.

The borrow program is the only form of securities loan in which the lender grants borrowing rights to a portfolio of assets rather than to specific assets on a transaction by transaction basis. Such an arrangement requires the lender to segregate and track the lendable portfolio separately from its general portfolio, giving the borrower a view of the available securities.[14] Use of a tri-party bank in borrow programs adds an additional participant to the securities transfer chain, but otherwise does not affect the mechanics. While tri-party banks are not a requisite of borrow programs, they are frequently present.

Regardless of whether a borrow v. cash, borrow v. pledge or a borrow program is used, government securities are delivered against cash payment over the relevant payments

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[14] Under a borrow program the lender is still able to turn over its portfolio freely; it is simply restricted from lending from that portfolio to other borrowers.

system. "Free" transfers of securities are never used in these three transaction types because the transferer would be exposed to the risk of a failure by its counterparty. A "free" transfer of securities is one in which securities are sent over the wire without any corresponding receipt of funds. In the borrow v. cash transaction, such transfers are straightforward, as one transfer of securities against cash satisfies the transaction. In the borrow v. pledge, two wire transfers are necessary: (1) the borrowed securities are sent against funds, and (2) the pledged collateral is sent against funds. The cash value of these two transfers are identical, leaving the borrower with the desired security and the lender with the pledged security. Both securities transfers are made against funds to forestall serious loss by either party in the event of one party's failure to perform. In a borrow program, securities are also wired against funds, with the tri-party bank typically adding another layer to the transfer process.

The final transaction type, the borrow v. letter of credit, is perhaps the least complex of the four transaction types in terms of securities transfer mechanics. Once the lender receives a letter of credit from the borrower's bank, securities are wired to the borrower "free" so long as the value of the borrowed securities remains less than the value of the letter of credit. Borrow v. LOC is the only transaction type under which securities are transferred "free."

Settlement conventions and treatment of accrued interest, in the case of bonds, and dividends, in the case of stocks, depend upon the security lent rather than the loan's transaction type. For loans involving government securities, accrued interest is included in the loan's market value for the purpose of determining a loan's initial collateralization requirement. That is, the securities lender requires 102 percent of the sum of the note or bond's price plus accrued interest. Subsequently, accrued interest is accounted for on a daily basis when marking

the loan's collateral to market. On coupon payment date, the borrower pays the coupon amount to the lender in the context of a mark-to-market.[15]

For loans involving equities, if the borrower holds the security on dividend payment date, the borrower receives the dividend and remits it back to the lender on the same day. Despite this cash flow wash, some foreign borrowers can account for this cash as dividend income. Such tax treatments create demand for securities loans in the equities market, which is independent of short positioning.

Loans for both governments and equities are typically settled on a same-day basis given sufficiently early notification. For governments, notification must be made by 10:00 A.M. for same-day settlement. Thus, a lender of governments can freely sell its loaned securities for normal next day settlement, notifying the borrower on the following morning. Termination of an equities loan is usually for corporate or five-day settlement. This longer settlement period does not hinder a lender's ability to sell its loaned equity security, as cash equity sales conventionally settle in five business days.

C. Regulation

Specific Federal regulation of securities lending applies primarily to the activities of broker/dealers. The U.S. Securities and Exchange Commission ("SEC") and Board of Governors of the Federal Reserve System ("Fed") have promulgated regulations governing prudential operation of securities lending and the credit aspects of the business, respectively. These regulations apply to broker/dealers acting as both borrowers and lenders of securities.

Entities that are not broker/dealers are much less regulated. Lenders are regulated only insofar as they are regulated generally. Pension funds and insurance companies,

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[15] Since accrued interest is accounted for on a daily basis, the lender effectively receives just one day's interest on coupon payment date. Coupon payments and redemptions at maturity should be viewed as separate events from interest accrual and marking-to-market for legal and accounting purposes.

as noted above, appear to be the largest institutional lenders. Pension funds are subject to ERISA. Insurance companies are not subject to general Federal regulation but rather are subject to regulation by the states. Banks may operate as both borrowers and lenders of government and agency securities and municipal securities inasmuch as they may invest and deal in them; they may also operate as agent for lenders in connection with their custodian and trust activities.

Pensions plans and ERISA. The regulations promulgated under ERISA prohibit securities lending from a pension plan to a bank or a broker/ dealer that are "parties in interest" with the plan. A party in interest includes any entity that executes securities transactions on behalf of plans and/or renders investment advice to them.[16] Accordingly, without an express exemption such a party could not engage in transactions with a plan. However, an express exemption applies to securities lending transactions with a party so long as certain conditions -- which generally follow market practices for securities loans -- are met.[17]

Bank regulators and banks. The Federal Financial Institution Examinations Council ("FFIEC") issued a statement on bank activities in the securities lending business ("Statement") in 1985.[18] The Statement provides guidelines under which bank activities as a lender and as agent are to be conducted. Those guidelines require the following:

1. The bank's recordkeeping system should produce daily reports showing securities available for lending and currently lent, outstanding loans by account, and the like.

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[16] 1-A Pens. & Profit Sharing (P-H) ¶ 21,615.

[17] The conditions require the following: The party must provide its most recent audited financial statement to the plan. The actual borrower of securities may not have discretionary authority or control over investment of the borrowed assets nor render investment advice concerning them. The loan must be made pursuant to a written agreement with terms at least as favorable as an arm's length transaction with others. Collateral with a value of at least 100 percent of the amount of the loan must be kept during its life, and collateral must be in the form of cash, Government securities or bank letters of credit. The borrower must pay the plan a reasonable fee, though it may be in the form of investment of the borrower's cash collateral. ¶ 21,625; Prohibited Transaction Exemption 81-6 (46 Fed. Reg. 7527 (Jan. 23, 1981), correction published 46 Fed. Reg. 10570 (Feb. 3, 1981)); Prohibited Transaction Exemption 82-63 (47 Fed. Reg. 14804 (Apr. 6, 1982)).

[18] F.R.R.S. ¶ 3-1579.5.

2. Collateral should be marked to market daily. Written procedures must outline how to choose the customer account that will be the source of lent securities when securities to be loaned are held in more than one account. Timeliness of reports and overall compliance with procedures must be audited.

3. A management committee should approve each borrower to whom securities are lent after credit review by someone other than a member of the security lending operation.

4. Management should establish individual credit limits for each borrower.

5. A collateral margin greater than 100 percent of loan value should be set on the basis of price volatility, and lent securities should not be released unless collateral is sent simultaneously.

6. Banks should have written guidelines on investment of cash collateral and obtain written authorizations from borrowers on such investments.

7. If letters of credit are accepted as collateral, the issuers of such letters and concentration limits should be reviewed.

8. Lending should be done only under written agreements with the owner of the securities and with the borrower outlining the bank's responsibilities and fees.

9. The bank's policy on the use of finders should be detailed in writing. Finders should never be permitted to take delivery of securities or collateral.

10. If the bank indemnifies lenders, written opinions of its counsel and accountants should be obtained concerning authority to indemnify and financial statement disclosure of the indemnity.

11. Loans and indemnities should be reported on the bank's Call Report.

Broker/dealers. The SEC restricts the conditions under which broker/dealers may engage in securities lending through Rule 15c3-3, its regulation requiring physical possession of all customer securities.[19] Any party other than another broker/dealer is

[19] 17 C.F.R. § 15c3-3 (1988).

considered to be a "customer" for purposes of this regulation. Accordingly, in order to permit broker/dealers to deliver borrowed securities to others, the regulation carries an exception.

The exception permits a broker/dealer not to have possession of securities borrowed from another party so long as a written agreement with the lender specifies (1) the rights and liabilities of the parties, (2) the right of the lender to receive a schedule of securities loaned at the time of the loan, (3) a notice that the transaction is not covered by the Securities Investor Protection Act of 1970, and (4) requirements that the broker/dealer (a) provide collateral in the form of cash, Treasury bills or notes or a letter of credit by the end of the day on which the loan occurs and (b) subsequently mark the collateral to market daily.[20] Recently, at the request of the PSA, the SEC has permitted certain Government securities other than notes and bills to serve as collateral.[21]

It should be noted that another SEC regulation restricts short sales, for which a great amount of securities borrowing is conducted. Short sales of non-government securities may be made only on an increase in a security's price, called an "up-tick."[22] The purpose of this rule is to allow relatively unrestricted short selling in advancing markets, prevent short selling at successively lower prices, thus eliminating short-selling as a tool for driving the market down, and prevent short sellers from accelerating a declining market.[23]

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[20] Id. at Section 15c3-3(b)(3).

[21] See letter to Michael A. Macchiaroli, Esq. Assistant Director, Division of Market Regulation, SEC, from Frances R. Bermanzohn, Esq. (June 21, 1988); Federal Register notice, 54 Fed. Reg. 10680 (Mar. 15, 1989); and the SEC's no-action letter, available Mar. 2, 1989. The notice permits certain mortgage-related securities and securities issued by the Financing Corporation to serve as collateral.

[22] Rule 10a-1, 17 C.F.R. § 240.10a-1 (1988). There are exceptions for specialists, market-makers and others.

[23] Securities Exchange Act Release No. 11468 (June 12, 1975), 40 Fed. Reg. 25443 (1975).

The Fed restricts securities borrowing and lending by broker/dealers in Regulation T, which generally imposes restrictions on the extent to which broker/dealers may obtain and extend credit.[24] The lending of securities is limited because broker/dealers could avoid the Regulation's restrictions on extensions of credit by engaging in such transactions; instead of lending funds to a customer, a broker/ dealer could lend securities, which the customer could then sell for funds and put himself in the same position as if he had borrowed funds from the broker/dealer.

The Regulation permits a broker/dealer to borrow or lend securities only for the purpose of making delivery in the case of short sales or failure to receive securities required to be delivered.[25] Also, such transactions must be secured, and collateral may be cash, government or agency securities, negotiable bank certificates of deposit and banker's acceptances issued in the United States, and letters of credit issued by United States banks and certain foreign banks; collateral must equal at least 100 percent of the market value of the securities borrowed and must be marked to market daily. The requirement of collateral puts a limit on the extent to which securities loans can provide leverage to market participants.[26] However, Fed staff has indicated that it is permissible for corporate securities and other non-qualifying securities to be used as collateral for a LOC. That is, non-qualifying securities may serve as collateral for the bank that issues an LOC that collateralizes a securities loan. It was

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[24] 12 C.F.R. Part 220 (1988).

[25] 12 C.F.R. § 220.16 (1988).

[26] The SEC had been opposed at one time to permitting the use of letters of credit as collateral because of concerns about leverage that the use of non-cash/non-securities collateral could provide. However, it appears that the great majority of banks require that such letters be collateralized, thereby reducing the leverage available through their use.

recognized that this would occur, but it was believed that the need to pay for the LOC would suffice to prevent abuse of this alternative.[27]

Fed staff has interpreted this provision strictly. It disallows borrowing by a broker/dealer prior to the need for the security for future short sales or failed deliveries; each loan must relate to an actual transaction that has already occurred or is about to occur.[28] It also disallows borrowing for purposes of so-called "dividend reinvestment plans."[29] It has also disallowed the use of Eurodollar certificates of deposit, which are issued and payable offshore, and unlisted corporate debt as collateral.[30] However, staff has not objected to the use of certain foreign sovereign debt securities as collateral for the borrowing of foreign corporate securities from the same nation.[31]

IV Market Participants

A. Introduction

Lenders of securities are usually pension funds, endowments (including college funds), life insurance companies (lending from their general investment accounts), or mutual funds. Securities firms may also lend to one another directly. The incentive to lend is fee

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[27] Use of margin stock as collateral for such an LOC raises the question whether the LOC itself constitutes an extension of credit covered by the margin regulations that apply to banks. Fed staff has indicated orally that it does not. Otherwise, margin stock would have to be provided in an amount sufficient to satisfy the margin regulations; using the 50 percent margin currently required by Regulation U, the market value of the margin stock would have to be double the amount of the LOC if staff indicated that the margin regulations applied.

[28] Federal Reserve Regulatory Service ("F.R.R.S.") ¶ 5-610. The F.R.R.S. carries Board and Board staff interpreta-tions and opinions.

[29] F.R.R.S. ¶¶ 5-615.01 and 5-615.1.

[30] F.R.R.S. ¶¶ 5-615.13 and 5-615.14.

[31] F.R.R.S. ¶ 5-615.15.

income with minimal risk to principal, properly managed. There are, roughly speaking, about 2,000 lenders.

Borrowers are typically securities firms who have positioning (covering shorts) or operational (avoiding fails) objectives. As a group, these firms have less risk aversion than lenders but also have narrower margins for error (reflecting their capital structures). The incentive to borrow securities would seem to increase with the volatility of the capital markets. One would, therefore, expect a large number of securities firms to be participating. This does not seem to be the case. One bank, considered to be among the top agents, has indicated that it will lend securities to 56 firms. These firms, however, account for the majority of the wholesale market activity.

Finally, agents are typically money center banks or trust companies with national clienteles. Regional banks have recently increased their securities lending activities, generally providing similar services to smaller pension funds and endowments.

There is occasionally a fourth party participating, a tri-party bank in a borrow program. Borrow programs account for a small, but growing, percentage of all securities loans.

The confluence of profit motivations of borrowers, lenders and agents can be seen in pricing. Securities loans have an explicit fee which is divided in some manner between the agent and lender. This fee is set by the agent through negotiations with the borrower; it usually reflects the market's demand for the security being lent, the rebate rate for cash collateral or the securities accepted as collateral, the level of collateral, and whether an indemnification is provided.

B. Lenders

The suppliers of securities for loan are primarily pension and endowment funds, but could be any investor with a sizable portfolio. The tax-exempt status of most lenders

appears to be largely coincidental, and accordingly, any change in the Federal taxation of employee benefit funds would seem to have little impact on this business. (Taxation may even be an incentive to lend to generate offsetting income.)

Generally speaking, lenders seek to improve the performance of their assets or to offset the cost of trustee and custodial services. The return on securities loans is about 0.5 percent per year on stocks and about half that on Treasury securities.[32] This fee income is small relative to investment returns over the past five years, but given the estimated $2.3 trillion in public and private (corporate) pension fund assets,[33] it represents a significant potential benefit to the group. That benefit, roughly estimated, could exceed $1 billion. A recent report indicates that among pension funds with assets of $1 billion or more, 71 percent had security lending programs in place.[34]

Although securities firms have lent stocks and bonds among themselves for many years, a concerted effort was made to attract institutional portfolios in the early 1970s. Competitive considerations made it unwise for one broker/ dealer to approach other broker/dealers for a securities loan, especially among the key players in the government securities market. In 1981, the U.S. Department of Labor gave pension funds permission to participate in securities lending arrangements, providing that certain collateralization, credit review and indemnification rules were followed. The initial response was enthusiastic. Northern Trust Company of Chicago and Chase Manhattan Bank of New York took an early lead in this

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[32] Victor F. Zonana, "L.A. County Halts Securities Loan Program, Pooled Fund Had Profited but Exposure After October 19 Crash Worried Treasurer", The Los Angeles Times, Nov. 16, 1987, Part IV, p. 1.

[33] Based upon year-end 1988 survey data, EBRI Issues Brief No. 91, Employee Benefits Research Insitute, Washington, D.C., June, 1989.

[34] Janet Lewis, "Pensions: Making Assets Work Harder," Institutional Investor, Feb. 1988, p. 113.

business, developing highly automated systems to support lending activity.[35] Other banks followed.

The failure of Drysdale Government Securities in 1982 sent a scare through the securities lending business due to the economic similarity of a reverse repurchase agreement and a securities loan with cash collateral. Pension funds backed away from lending temporarily, but returned as the character of their holdings changed and agents imposed tighter controls.

Even before the revelations of fraud and other misconduct in the repurchase agreement market, relatively few corporate pension funds were permitted under their plan provisions to "repo out" securities. (Virtually no public pension funds were permitted to do so.) These transactions were probably viewed by plan sponsors in a literal fashion, i.e. the sale today of certain securities and their repurchase at some later date. As such, the repurchase agreement had a speculative flavor. The Drysdale affair solidified this view. Even though the economic substance of a "repo out" was the same as that of a securities loan, securities lending was perceived to be less risky. This was probably related to the widespread practice of agents indemnifying plans for most losses arising out of the lending transaction.

Four factors thrust pension funds into dominance as lenders of securities. The first was their self-imposed restrictions on repo activity. Second, by the early 1980s pension funds had more securities in their portfolios that were desired by broker/dealers. This reflects the diversification brought about by the Employee Retirement Income Security Act of 1974 (ERISA). That landmark legislation placed large employee benefit plans under the supervision of the U.S. Department of Labor and sought to put them on a sounder financial footing by increasing the scope of their asset holdings. In the years before ERISA, most large pension plans had concentrations of fixed income investments and relatively minor exposures to the

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[35] Id.

equity and real estate markets. ERISA, the weak bond market of the late 1970s, and the 1982-83 rally in stocks gave pension funds the impetus to diversify. They did so in a manner that positioned them well for the later phases of the bull markets in stocks and bonds. Those bull markets swelled their asset holdings and gave pension funds the wherewithal to diversify further, into small-capitalization stocks, venture capital, foreign securities, real estate, etc. The core of the typical pension fund portfolio remained, however, large capitalization stocks and high-quality bonds. These were precisely the instruments sought by borrowers.

The third factor was income. Against the background of the dual bull markets, trustee banks "unbundled" their custodial and other charges. The surge in trading volume, and the increased diversity of holdings, had sharply increased their costs. These higher costs were frequently passed on to the pension funds via transaction-driven fee schedules, which could increase trustee/custodial charges by as much as one-third. Securities lending provided a means of offsetting those increased expenses. Endowments and foundations had similar experiences. In one reported case, a foundation selected a bank as its master trustee because its securities lending agreement promised to defray a significant portion of the trustee expense.[36]

Finally, ERISA focused attention on the total rate of return earned by a pension fund. The discharge of a pension fund officer's fiduciary responsibilities was to be evaluated on the basis of the fund's return and not that of each investment in the fund's portfolio. This enabled pension funds to invest in more risky media so long as other assets compensated for it. In practice, pension funds held large positions in government securities which enabled them to diversify into equities without fear of liability from occasional stock losses. Obviously, the

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[36] _____, "Joyce Foundation", Pensions & Investment Age, Oct.10, 1987, p. 24.

lending of those "anchor" securities enhanced total returns. This income stream also reduced the volatility of portfolio returns that attended the increasing concentration of equity holdings.[37]

The emphasis on total return performance was heightened by Financial Accounting Standard No. 87. The Standard required a comparison of the market value of invested assets to the present value of accrued liabilities. Pension funds with asset values below the present value of their liabilities were obliged to report the difference as an underfunded condition. This underfunded condition was, in turn, allocated over a number of years and reported as a "cost" on the parent corporation's financial statements. The Standard gave corporate managements an added incentive to assure that their pension funds were earning a competitive total return.

C. Borrowers

Borrowers as a group are the most homogeneous of parties to a securities loan transaction, consisting almost entirely of securities dealers. Other borrowers of securities would be "hedge" or aggressive trading accounts that take short positions, as well as individual investors.[38] Due to their relative importance, securities dealers are the dominant factor in the demand for securities loans.

Dealer transactions may be broadly classified as having either a position orientation or a financing orientation. Positioning transactions typically precede and drive a corresponding financing transaction. The two principal position transaction types are purchases and sales. Financing transaction types are more numerous, but for the present discussion,

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[37] Interestingly, it is not industry practice to include security lending income in the computations of an investment manager's total return.

[38] Individual borrowing typically takes place in equities, where they are most active, but is not seen as a significant source of overall activity.

consideration of three financing transaction types will be sufficient: RPs, RRPs, and securities loans (SLs).

Purchases. A dealer can purchase securities with either its own capital or it can use borrowed funds. Dealers borrow funds by entering a financing transaction. In the government securities market, the most popular way to borrow money is by executing an RP transaction. In this financing transaction dealers acquire funds to complete a purchase transaction, typically using the purchased security as collateral in the RP transaction. Thus, the coordinated execution of a positioning transaction (the purchase) and a financing transaction (the RP) provide the dealer with a leveraged ownership interest in the purchased security.

Sales. A dealer entering a sale transaction either sells a security it holds in inventory or executes a corresponding financing transaction through which it borrows the security it has sold short. Dealers in government securities may borrow securities through two types of financing transactions: the RRP or the SL. The choice between these two financing alternatives is a function of price, counterparty availability, and the supply of the desired collateral. As in the purchase case, use of a corresponding financing transaction results in a leveraged position (a leveraged short position).

Almost all government securities dealers run matched-books. Matched-books are a hybrid situation, in that two financing transactions are entered that result in a position. Matched-book positions can be established by either RP-RRP combinations or RP-SL combinations. Matched-books are probably the only instance where a dealer's financing transactions do not correspond to a positioning transaction, yet they may result in a position. Of course, a perfectly fitted matched-book trade results in an arbitrage profit rather than a position.

Loans. In general, securities loans can be viewed as one of several financing alternatives, which are usually entered in support of a positioning transaction. Specifically,

securities dealers select this financing transaction to either (1) cover short sales, or (2) reduce or eliminate fail-to-deliver exposures, or (3) as part of a matched-book trading strategy.

A dealer chooses securities loans as the most attractive financing alternative available, and may even sometimes view it as the only alternative. This usually means that the loan finances the position at least cost to the dealer. The loan may also be attractive to the borrower as a means for disguising its position from other dealers; however, cost is always a critical variable.

Dealers also utilize the loan market to obtain special issues because of supply levels and the benefits of secrecy in specials dealing. Dealers may also lower their ultimate financing cost by negotiating a rate on a large block with one lender versus accumulating securities from many through RRPs. By working with lenders outside the dealer community, dealers can often hide their positions and avoid unfriendly manipulation by other dealers.

Another use of the securities loan, most prevalent in the equities market, is to use the borrowed security to satisfy an obligation arising out of a written call option that expires in-the-money. The dealer borrows the security in the hope that it will fall in price. While this usage was mentioned by a participant as a separate activity, it can be alternatively viewed as a special case of using a borrowed security to cover a short sale, as a short unhedged in-the-money call option leaves the dealer with a short position at expiration.

A very important ramification of securities lending is its general downward pressure on dealer financing costs. The existence and growth of lending serve to lower dealer financing costs by increasing the supply of securities for such financing. Evidence for this effect is widespread, but is perhaps captured best by the recent decline in the typical fee paid by

borrowers in the borrow v. pledge transaction.[39] The decrease in this fee reflects a relative increase in the supply of securities available for loan.

D. Agents

An agent in the securities lending business may be anyone authorized to engage in the securities business who acts as an intermediary between a borrower and a lender of securities. In practice it appears that only banks and broker/dealers perform this role. However, broker/dealers may borrow customer securities in order to engage in short selling and to make good on failed deliveries as principals rather than as agents; as a legal matter, they act as principals in borrowing from their customers, or lending to them, and accordingly should not be considered to be agents. Banks, then, appear to dominate the agent function in the securities lending process.[40]

Many banks act as custodians of securities for their customers. These customers are broker/dealers and institutional investors such as insurance companies, pension funds and the like. Some banks have found that, as part of their custodial services to non-broker/dealers, they can attract business by offering to lend the customers' securities for them and thereby generate additional income on those portfolios. The banks may also obtain additional funds for their money desks by receiving cash collateral from borrowers of customer securities and investing it; typically the banks retain a portion of the income earned on such investments. While some agent business is on a stand-alone basis -- that is, the bank is not custodian of the customer's securities that the customer makes available for lending by the bank -- it appears that the great majority is derived from securities held by the bank.

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[39] Formerly 50 basis points, this fee is now typically quoted at 25-30 basis points.

[40] Brokers' brokers perform a significant agency function in the closely related RRP market, and participate as agents on a much more modest scale in the securities lending market.

Acting as agent in a securities lending transaction appears to require, at minimum, a sophisticated understanding of the risks involved in such transactions, the trust of lenders who are relying on the agent's expertise in arranging the transactions, and a supply of securities available virtually immediately for transactions. These requirements by themselves establish a very high threshold of entry into the business; it appears that only the largest banks with a securities custody presence in New York have met it.

A new environmental factor that may cause current agent banks to decide to drop out of the market is the Risk-Based Capital Adequacy Guidelines. Those Guidelines for the first time will require a specific amount of capital to support off-balance sheet items. All of the agent banks that discussed the matter indicated that they provide their custody customers with some form of indemnity covering the failure of the borrower to return the lent securities. The Guidelines specifically include indemnities against loss on securities loans as a direct credit substitute.[41] This means that the amount of the indemnity is translated at full value to a balance sheet equivalent amount.[42] If the borrower is a private party that is not a bank -- that is, the borrower is not a bank or a Federal or municipal governmental entity -- and the collateral is not

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[41] The Risk-Based Guidelines state the following:

> Securities lent by a bank are treated in one of two ways, depending upon whether the lender is at risk of loss. If a bank, as agent for a customer, lends the customer's securities and does not indemnify the customer against loss, then the transaction is excluded from the risk-based capital calculation. If, alternatively, a bank lends its own securities or, acting as agent for a customer, lends the customer's securities and indemnifies the customer against loss, the transaction is converted at 100 percent and assigned to the risk weight category appropriate to the obligor, to any collateral delivered to the lending bank, or, if applicable, to the independent custodian acting on the lender's behalf.
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> Risk-Based Capital Guidelines, 54 Fed. Reg. 4186, 4202 (Jan. 27, 1989).

[42] That is, the full amount of the indemnity is multiplied by 100 percent to translate the off-balance sheet item to the balance sheet. This means that the amount of the indemnity is treated as though it were a balance sheet liability. The riskiness of that "liability" is then based upon the risk category of the borrower or of the collateral provided by the borrower. Risk-Based Capital Guidelines of State Member Banks, 54 Fed. Reg. 4186, 4204 (Jan. 27, 1989).

cash, government securities or a LOC, then the liability is in the highest category of risk, which is 100 percent. If the borrower is a governmental instrumentality or a bank, or if the loan is fully collateralized with cash or government securities or is backed by a LOC, then the liability is in a lower risk category, 20 percent; that is, 20 percent of the value of the loan is a risk-weighted asset.

The banks with which discussions were held on their indemnities prior to the new Guidelines stated that they do not currently report such indemnities on their Call Reports. The explicit statement in the Guidelines makes clear that they are to be reported and that capital will be expected by the regulators to support them. Upon the full phase-in of the Guidelines in 1992, such indemnities will attract a minimum capital requirement of 20 percent of eight percent of the indemnified amount on a risk-weighted basis, or 1.6 percent. Because securities loans are required by the Fed to be collateralized by cash, government securities or a LOC, and, as noted above, practice is to require such collateral, such collateral or LOC will place the indemnity in the 20 percent risk category.

Assuming the agent banks pass this capital cost through to their customers, the cost of the business will increase and may cause either lenders or agent banks to pull out of the business. Alternatively, banks could reduce the fee income paid to lenders that wish to have the protection of an indemnity. Another alternative would be for agent banks to attempt to pass this cost through to borrowers; however, it is not clear whether the agented portion of the securities lending market would be strong enough in relation to the non-agented portion to make such an action effective.

Because agent banks' activity derives from their securities custody activities, it appears that the primary determinant of an agent's market share is the amount and type of securities that it holds for customers. A bank holding a large amount of government securities would be in a very good position to enter this market; one holding primarily corporate debt and

equity would be in a good position, but probably not as good as one holding governments inasmuch as the latter are more liquid and thus more actively borrowed. Beyond this, other determinants of market share would appear to be (1) the nature of the bank's custody customers, (2) the attractiveness of the bank's pricing to lenders, and (3) the bank's visibility among securities borrowers and the attractiveness of its prices to them.

It appears that securities lending by agent banks is growing, but not exponentially. In the absence of statistical data, it is extremely difficult to discern precise trends. Agents believe that the lending of foreign securities is increasing, and, with the growing internationalization of securities markets, it may be that domestic institutional investors will hold more foreign securities and increase the supply available for lending. This is discussed below in Appendix A.

V Risks Borne by Each Participant

A. Lenders

There are three sources of uncertainty for the lender:

1. The scope of the indemnification.
2. The creditworthiness of the agent providing the indemnification.
3. Interference with the investment process.

Pension fund trustees and officers are burdened by their fiduciary responsibility to plan participants. They are also subject to standards of performance defined by the U.S. Department of Labor under ERISA. Against this background, pension funds frequently require some form of indemnification from the agent for non-performance by the borrower and certain other events. (Similar provisions attend the lending of assets by endowments and foundations.) Pension funds can, however, enter into lending agreements which do not provide for such

indemnification. Compensating controls would probably be imposed upon the agent in those cases. Such controls might include a more selective list of borrowers, dollar limitations on the exposure to any one borrower and to the fund as a whole, and possibly, stiffer collateralization requirements (quality and level). As one borrower emphasized in an interview with the authors, there is little need for an indemnification if the business is done properly, pointing out the smooth functioning of the securities lending market during the stock market crash of October, 1987 as indicative of the industry's soundness.

Although securities lending agreements have achieved some degree of standardization, indemnification provisions differ. Most provisions state that the failure of a borrower to redeliver securities or remit distributions will trigger indemnification. In effect, the agent is assuming the credit risk of a borrower default. On the other hand, specificity with respect to trigger events is usually lacking. In addition, if the borrower's failure to return securities is caused by the agent's failure to return collateral, no indemnification may be indicated. Accordingly, the scope of indemnification may be unclear, especially in the wake of an unusual market movement or the failure of one of the computer-based systems supporting securities/funds transfer.

The Drysdale affair sensitized pension funds to the obligations of counterparties in these transactions. Few funds seem to take comfort in the explanation that securities loans are risk-free by virtue of their collateralization. The benefit of an indemnification provision and its implicit cost are considerations for lenders in what is essentially a business decision. The greater degree of comfort with a given agent's selection of borrowers and with its collateral controls, the lesser the net benefit of an indemnification. Agents continue, however, to treat the indemnification as something incidental to the securities lending arrangement. Banking Circular

No. 196 (from the Office of the Comptroller of the Currency) acknowledges that indemnification is commonly provided as part of the primary service of securities lending.[43]

In volatile capital markets, lenders must rely upon the agent's ability to manage the flow of securities to and from borrowers in a manner that does not interfere with the execution of their investment policies. In one reported instance, a major West Coast bank implemented a trust accounting system that caused disruption to its securities lending, portfolio analysis, benefits disbursement and participant recordkeeping businesses.[44] Although developments of this sort frequently are unreported, "back office" efficiency is a recurring theme in lender commentaries: When one major pension fund selected a regional bank to implement its securities lending program, the pension officer remarked that "Securities lending is a system-type operation and you must feel comfortable with the system being used at the bank."[45]

The increasing complexity of financial instruments and the proliferation of special dividends from corporate reorganizations place a special burden upon agents. The cash flows from these sources, if misdirected, could adversely impact investment returns. They could also misstate performance results and, by so doing, impact decisions as to the hiring or firing of investment managers. Finally, the lender may also be exposed to a loss of value if "equivalent securities" have to be purchased by the agent to extinguish a loan obligation under an indemnification provision.

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[43] The same Circular calls for extensive prudential controls on the activity, including the credit analysis of borrowers and the maintenance of adequate collateral.

[44] M. A. Robinson, "BankAmerica is Computing More Trouble; New High-Tech System Plagued with Backlogs", American Banker, July 16, 1987, p. 1.

[45] _____, "Late News", Pensions & Investment Age, September 21, 1987, p. 54.

B. Borrowers.

From the borrower's perspective, the availability and retention of loaned securities are seen as a source of value. Yet, most securities loans are arranged with open maturity terms. This allows the lender to manage the portfolio without regard to lending activity. Given the lender's strong preference for portfolio liquidity, securities loans rarely involve any type of term lending. Most loans are entered with open maturities and repriced daily. The term loans that are entered usually have a substitution clause, which allows either party to change the loaned security during the loan term. All substitutions are subject to repricing, but most often these repricings penalize the substituting party. In sum, the overriding concern in structuring the maturity of a securities loan is to ensure that loan involvement remains transparent to the lender in his purchase and sale decisions.[46]

C. Agents.

Agents, as the "middle-men" between borrowers and lenders, subject themselves to fewer types of risk of loss than do borrowers and lenders. The primary risk of agents seems to be in the indemnity undertaken by most banks that engage in this business. Other risks, which appear to be of a much lower degree of concern, are incurred in their agreements to perform services for lenders.

As noted above, the new Risk-Based Capital Guidelines state that a bank's indemnity of a lender of securities constitutes a financial guarantee, which means that the full value of the guarantee is treated as a balance sheet claim against the borrower. While the Guidelines do not themselves cause indemnities to be any riskier than before, they will probably highlight for banks the nature of their particular indemnities and may motivate changes in their

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[46] Term lending is most likely to occur when a lender has a large supply of a particular issue, as the lender can put a portion of the issue out on term loan and lend the majority of its holdings in this same issue on an open basis.

scope. For example, a blanket indemnity against loss on a securities loan by a lender would seem to constitute an indemnity for the full value of the lent securities. More specific indemnities would cover discrete risks that would limit the amount for which the bank is placed at risk. For example, one bank indemnifies its lenders against risk of re-delivery failure and risk of failure to receive any dividend or interest payments made by the lent securities' issuer that are to be paid to the lender during the term of the loan; it does not cover the risk of failure to re-deliver lent securities if that failure is caused by the bank's inability to return cash collateral due to failure to receive payment on any transaction in which cash collateral has been invested. It appears that this indemnity would be considered to cover the full value of the lent securities. Banks might attempt to limit the amount of the indemnity to some lower amount, such as a percentage of the value of the lent securities, perhaps based on the theory that a lender will be willing to assume risk of return of cash collateral and to accept an indemnity only for a small percentage of the lent securities' value in order to cover some amount of exposure due to market price movements. It seems that an indemnity limited in amount would permit the bank to report only that amount as an off-balance-sheet item for capital purposes.

There are other aspects of agent activities that expose the agent to risk:

1. As noted above, agents receive some of their compensation from the investment of cash collateral; most of those earnings are returned to borrowers, but the agent keeps a specified portion. An agent incurs the risk that it will not receive the return that it expects and thus will have lower income.

2. Agents may incur loss in the transmission of lent securities and/or the receipt of collateral. It appears that, at least in the domestic securities market, this risk is minimal. Some banks will lend only "wireable" securities -- that is, governments in book-entry form or securities deposited at Depository Trust Company -- which lowers this risk substantially. The lending of foreign securities arranged in the United States presents a more complicated picture because re-delivery of lent securities almost always occurs in a foreign country while the cash collateral is almost always in dollars that must be paid in the United States; there are almost always time zone differences between the United States and the country in which re-

delivery of the securities takes place, which exposes the parties to risk during the interval between the exchange of securities and cash.[47]

3. Agents assume the responsibility of marking collateral to market and obtaining additional collateral speedily when needed. Failure to carry out this responsibility opens the agent to a claim for negligence by the lender if loss results.

4. Many agents set limits on the level of borrowings that may be outstanding from that agent's lenders to each borrower and the level of loans for different classes of securities that it will permit. This practice may be intended primarily to protect the bank from risk of loss on its indemnity, and secondarily to provide some comfort to its lenders that the agent is acting to limit its lenders' exposures.

VI Pricing Securities Loans

The cost or price of a securities loan is largely, but not completely, independent of the loan's transaction type.[48] The pricing of securities loans must be viewed in the context of the RP-RRP market. In fact, prices that are established in the RP-RRP market are used as a benchmark for setting the fee in the borrow v. pledge agreement.

The discussion of pricing that follows will begin with a detailed description of how the borrow v. pledge fee is actually set in the RP-RRP market. This explanation will be followed by a description of how the "rebate" rate of the borrow v. cash transaction is set in the RRP market. Finally, a summary discussion of pricing will show how these two pricing approaches can be applied to the pricing of the borrow v. LOC and the borrow program transaction types.

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[47] Some lenders have indicated to broker/dealers that they wish to receive dollar cash collateral on the day before delivery of foreign securities is to be made and will pay interest overnight on those funds. To the extent that borrowers accede to this demand, borrowers are exposed to the risk of delivery failure the next day. Upon repayment, securities are delivered prior to delivery of cash collateral, for the protection of the lender; however, for European securities the cash and securities are delivered on the same day but with several hours' difference. Also, it should be noted that the concerns discussed in the text do not apply to securities lending arrangements established by foreign securities clearance and settlement systems such as Euro-clear and Cedel.

[48] For expositional ease, the pricing section will focus on government lending practices and ignore pricing issues for loans of other securities.

One way to look at the pricing of a reverse repo, in order to compare it with the pricing of a securities loan, is to think of securities borrowing via reverse repo as involving two repurchase transactions. In the first repo, the dealer borrows cash and puts up securities it has, but does not need, as collateral. The second is a reverse repo in which the dealer lends out the cash it has "repoed in" and receives as collateral the securities it seeks to borrow. A spread exists between the repo rate on the first transaction and the reverse repo rate on the second transaction. The repo rate (which the dealer pays to borrow cash) is higher than the reverse repo rate (which the dealer earns by lending cash). The spread exists because in the repo transaction the counterparty (who lends the dealer cash) is willing to accept any one of several possible types of securities as collateral. For this flexibility, the counterparty receives a higher interest rate. By contrast, in the reverse repo transaction the counterparty (who borrows cash from the dealer) is required by the dealer to put up a specific type of security (i.e., a special) as collateral. The counterparty in the reverse repo thus obtains a lower interest rate in exchange for abiding by the dealer's strict collateral terms.

To illustrate how RPs and RRPs can be used to construct a securities loan, assume the dealer currently possesses T-notes but wants to borrow T-bills to cover a short position. The first transaction is a repo in which the dealer borrows cash and puts up its T-notes as collateral. The second transaction is a reverse repo in which the dealer lends the cash it obtained via the repo and takes in the desired T-bills as collateral for the cash loan. On balance, the dealer must pay for obtaining the T-bills. This cost arises because of the difference in collateral in the two agreements. In the repo, where the counterparty is willing to accept almost any form of security as collateral, the dealer pays a relatively higher interest rate, say 7 percent, on the cash loan. In the reverse repo agreement, the dealer lends out the cash it has repoed in, but it is not flexible about the type of securities that the counterparty (a borrower of cash) puts up as collateral. Since the dealer must borrow T-bills, it requires the borrower of

cash to put up T-bills as collateral. This requirement restricts the universe of eligible borrowers and, therefore, forces the dealer to charge a lower interest rate, say 6.5 percent, on the cash it reverses out. The net effect is that the dealer receives the desired securities at a cost of 50 basis points (7.00% - 6.50% = 0.50%). Generally, a dealer can obtain the desired securities through the RP market, with the cost being a function of the spread between RP rates for general collateral and RRP rates for the desired security.

In financing their positions, dealers find a trade-off between (1) how flexible a lender of cash can be about the type of securities put up as collateral, and (2) the interest rate that the lender charges. The more inflexible the cash lender is about the type of securities put up as collateral, the more flexible he must be about the interest rate he charges. If a lender aims to borrow a specific type of security by lending cash to a borrower with that security, the borrower will be able to negotiate a lower interest rate on the cash loan. The reason for this trade-off is that when a cash lender is particular about the type of securities offered as collateral, he is limiting the number of potential counterparties who can borrow from him. Furthermore, if the cash lender seeks a special, he may have to accept an even lower interest rate. Thus, what might be a normal 50 basis-point spread between RP and RRP rates may become a 300 basis-point spread. In the extreme (a short squeeze in the desired security), this spread can become very large as RRP rates have fallen to zero and occasionally to slightly negative in the past.

Securities loans use the RP-RRP interest rate spread as a pricing benchmark, with the stability of this interaction dependent upon dealer sensitivity to funding costs. Since dealers can obtain the desired security by either using the RP-RRP strategy described above or through a securities loan, the dealer will normally choose the cheapest method between these two financing alternatives. Differences in the benchmark pricing spread and the securities loan fee may arise, but should only be temporary as dealers ultimately seek the lowest cost financing alternative. As a result of the dealers demanding the lower cost financing alternative, its price

should rise, quickly achieving equilibrium in a market as liquid as the government securities market.

The pricing of the borrow v. cash is also a function of pricing in the RP-RRP market. In this transaction type, lenders pay borrowers a fluctuating rate known as a "rebate". This rebate decreases as the desired security becomes scarcer; the rebate rate is typically the RRP rate of the security sought.[49]

In a borrow v. cash, gross earnings for the lender and its agent are calculated using the following formula:[50]

Gross Earnings = Earned Money Market Rate - Borrower Rebate

From this equation it can be seen that there are two ways to improve gross earnings: (1) by finding higher yields in the money market, or (2) by decreasing the rebate paid to the dealer (securities borrower).

The earned money market rate is the rate earned on cash collateral reinvested in the money market. The borrower rebate is the payment made to the borrower by the lender, and can be viewed as an interest payment on the borrower's cash collateral. The rebate rate is a function of the scarcity of the loaned security, rather than a function of money market rates. For scarce securities or specials, the borrower will accept a smaller rebate. In general, the RRP rate becomes the benchmark for the rebate rate, as it describes the market price for the sought collateral.

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[49] The economics of a RRP and a borrow v. pledge are the same, except that RP/RRP rates are on dollar proceeds and the borrow v. pledge fee is based on the par amount of the loan.

[50] Gross earnings are conventionally split 50/50 between the lender and the lender's agent. Lenders typically employ agents when entering securities loans.

An aggressive lender may set its rebate rate above the corresponding RRP rate to induce a dealer to borrow instead of arranging an RRP. However, such inducements are not typically necessary and would tend to be small as the dealer often prefers the securities loan to the RRP for proprietary positioning. Such inducements would be more common in lending collateral which is not scarce or if many lenders are in the market. Conversely, if circumstances cause lenders to pull back, dealers may be willing to give pricing concessions themselves, by accepting a lower rebate. Dealers may also accept a lower rebate to increase the term of the loan, although this rarely occurs in practice as lenders have a strong aversion to term loans.

In general, the RRP rate is the logical starting point for setting the borrower's rebate. Deviations in the "rebate" rate from the RRP rate must be understood as inducements by either the lender or borrower rather than fundamental pricing disparities.

Having established conceptual frameworks for pricing borrow v. pledge and borrow v. cash securities loan types, brief extensions can be drawn to explain the pricing behavior of the borrower v. LOC and borrow program transaction types.

The pricing of the fee in the borrow v. LOC transaction type is drawn directly from the benchmark pricing fee used in the borrow v. pledge arrangement. The fee charged in the borrow v. LOC can be viewed as the borrow v. pledge fee minus a concession for the credit enhancement provided by the LOC bank. The lender accepts a slightly lower fee in this transaction type in recognition of the cost of the LOC and the credit enhancement provided by the LOC bank.

Of the four transaction types the borrow program is unique in that its price is <u>not</u> transactionally driven. In a borrow program, the borrower and lender negotiate a fixed loan fee based upon the perceived lending value of the portfolio.[51] Setting the fee is a matter of

[51] The duration of borrow programs is certainly negotiable, but annual agreements are clearly the norm.

judgment. Some of the key elements upon which this judgment is based are (1) the nature of the securities typically available for loan in the portfolio, (2) the lender's past earnings experience, and (3) the dealer's demand for this transaction type. Other pricing considerations in this transaction are the potential absence of the lender's agent (no fee splitting), the increased credit risk of lending either an entire portfolio or a large subset of a portfolio to one borrower, and the generally reduced quality of collateral pledged by the borrower under such programs.[52]

A subtle risk to the borrower in this transaction is the risk of portfolio turnover by the lender. Under these programs lenders are free to fully change the nature of their portfolio. While such changes can either increase or decrease the value of the portfolio as a lendable asset, only the borrower is exposed to changes in the portfolio's lending value as the lender's fee has already been fixed. This risk to the borrower is somewhat mitigated by the fact that valued lending securities often appreciate in price and would accordingly be sought and held by the lender in managing the portfolio. In sum, portfolio management tends to complement rather than conflict with the borrower's needs; but it is worth remembering that the borrower alone bears the risk of portfolio turnover.

Summary of Pricing

The cost of securities lending transactions is based on the prices discovered in the RP-RRP market. Cost differentials may arise for many reasons. For instance, it may be more expensive to borrow from non-dealers such as insurance companies or commercial banks

[52] This transaction type is popular for dealers seeking to borrow mortgage-backed securities, because of the segmented nature of the mortgage market. Borrowers may also pledge illiquid mortgages securities, such as whole loans, in this transaction type.

than from other dealers; when a borrower is willing to pay a fee to "hide its positions" from other dealers.[53]

While other dealers are an ongoing source of securities, the problem with borrowing from other dealers is that the dealer community is small and a dealer-lender may learn of the borrower's short position. For example, if dealer A borrows a large amount of T-notes from dealer B, dealer B may realize that dealer A has sold the note short. The individuals at dealer B responsible for the lending transaction could inform their traders of dealer A's short position. The traders could then influence the cost which dealer A faces when it closes its short position. Thus, dealer A prefers to borrow from insurance companies or banks so that it can hide its position. This preference may mean that dealer A has to pay a higher fee to borrow than it would pay if it borrowed from another dealer through a RRP.

Except for government issues close to maturity, the older a security gets, the less attractive it is to borrow. Market participants prefer newer securities as they offer greater liquidity. These newer securities are referred to as "on-the-run" and are typically more expensive to borrow. Suppose that the issue a dealer seeks is of this class. In a reverse repo, the effective borrowing fee the dealer faces rises from 25-30 basis points to several hundred basis points.[54] This would mean that the dealer incurs a net interest cost of several hundred basis points instead of the typical[55] 25-30 basis points.

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[53] Some would maintain that all cost differentials are supply and demand driven, with borrower demand for a particular issue explaining pricing premiums and an over-supply of lenders explaining discount situations.

[54] The rise in the borrowing fee is theoretically unlimited. In practice the fee rarely exceeds the RP rate on general collateral.

[55] In general, as interest rates fall, the spread between short term rates and the overnight or repo rate contract. Alternatively, the spread expands as interest rates rise. Moreover, this spread helps the define the 'typical' fee on a securities loan. Accordingly, securities loan fees tend to fall when interest rates fall and rise when interest rates rise.

The general point, then, about pricing is that the price paid by the borrower to engage in a securities loan does not depend on the transaction type used. Rather, prices are more dependent on the type of lender and, principally, on the type and supply of security borrowed. The scarcer the security, the higher the price of the loan.

VII Legal Issues

A. Status as contracts.

The loan of securities is governed by contract. There appear to be no general provisions of law governing the lending and borrowing of securities. Thus, the parties may define the scope of their rights and responsibilities within the contract between them.

There are relatively few court cases concerning securities loans, and those that exist deal with tax issues related to such loans rather than defaults in repayment. The seminal case defining the general terms of securities loans is Provost v. United States,[56] a 1926 Supreme Court decision that involved a Federal tax statute requiring payment of a tax on "all sales, or agreements to sell . . . or transfers of legal title to shares or certificates of stock." A securities firm claimed that the tax should not apply to the borrowing of a security in order to cover a short sale and the subsequent transfer of stock to the lender in order to repay the loan. Its counsel argued that the loan did not involve the transfer of legal title to the securities but rather was in the nature of a pledge of the securities. In language that remains applicable to securities loans, the Court said that borrowers own borrowed securities outright.[57] The Court held that legal title had been transferred and the tax was applicable to the loan and repayment of the securities.

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[56] 269 U.S. 443, 70 L.Ed. 352, 46 S. Ct. 152 (1926).

[57] See Appendix C. for the text of the relevant portion of the Court's decision.

After the date of the transactions Congress amended the statute to exempt from its terms "mere loans of stock" and "the return of stock so loaned."[58]

The other court decisions have dealt with the deductibility by a short seller of payments to lenders during the loan terms of amounts equal to dividends on securities that he has borrowed. Provost noted that this is a common feature of securities loans. Some courts held that such payments are the equivalent of interest on a loan and thus are deductible, while others held that such payments are part of the cost of acquiring the securities and should be treated as an adjustment to the cost basis, and thus not deductible until the underlying transaction is unwound.[59]

As contractual undertakings, the rights and responsibilities of borrowers and lenders are set forth in their contracts. While there are some differences in details among the provisions of contracts used by several major parties in such transactions, the general terms are the same.

B. Contractual provisions.

Broker/dealers and agent banks that do a significant amount of lending business have standing contracts with lenders and borrowers covering securities loans. Such agreements

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[58] See Founders General Co. v. Hoey, 300 U.S. 268, 273 (1937).

[59] In favor of deductibility: C.I.R. v. Wilson, 163 F.2d 680 (9th Cir. 1947), cert. denied, 322 U.S. 842, 68 S. Ct. 263 (1947); Main Line Distributors, Inc. v. C.I.R., 321 F.2d 562 (6th Cir. 1963); C.I.R. v. Wiesler, 616 F.2d 997 (6th Cir. 1947); Dart v. C.I.R., 74 F.2d 845 (4th Cir. 1935) ("The expenditure is one made solely for the purpose of continuing to hold the borrowed stock and is not an incident to ownership but an expense paid in order to maintain the taxpayer's position in the market with respect to that particular transaction." Id. at 847). Against deductibility: C.I.R. v. Levis' Estate, 127 F.2d 796 (2d Cir. 1942) ("Upon a short sale no gain or loss can be realized by the seller until the transaction is closed by a covering purchase. . . . What is paid to the lender for use of the borrowed stock should be regarded as an expense of selling and an offset against the price received, as truly as is a selling commission paid to the broker." Id. at 797); Helvering v. Wilmington Trust Co., 124 F.2d 156 (3d Cir. 1941), rev'd on other grounds, 316 U.S. 164, 62 S. Ct. 984, 86 L.Ed. 1352 (1943).

usually provide for the types of securities that may be borrowed from time to time and other matters related to fees, collateral and other arrangements.

Generally, securities lending agreements provide that loans are repayable upon demand. However, the contracts generally provide that demand be given with prior notice of some number of days so that the borrower can arrange for repayment. For government securities, demand typically requires one or two days notice. For corporate securities, demand requires five business days notice, due to the five-day period required for settlement of purchases; this means that the borrower must enter an order to purchase the borrowed security on the day that demand is made. Borrowers, on the other hand, may terminate their loans simply by returning the security to the lender, or by giving one day's notice of return and then returning it the next business day. Fees are usually payable upon maturity of the loan, though in many cases fees are paid monthly.

As would be expected from the purposes for securities loans, and from the language of the Provost decision, the contracts provide that the borrower may use the borrowed securities in any legal manner. Thus, the borrower may transfer the securities to other parties. Also, most contracts apparently provide that the lender is not lending securities of an ERISA plan; this is probably due to the restrictions imposed on ERISA securities loans, discussed above at Section III.C. above, arranged by parties in interest with the plan and the possibility that a borrower might become embroiled in disputes over compliance with those regulations. The contracts usually provide that the same security must be returned as was lent, though "equivalent" securities may be returned in certain circumstances.

The type of collateral that the lender will accept is stated in the contract. Borrowers are expected to use their best efforts to deliver collateral simultaneously with delivery of the loaned securities, but delivery may be as late as the end of the day on which the loaned securities are delivered. Treasuries are delivered against payment over the book-entry system

in virtually all cases. The amount of cash or value of non-cash collateral is specified in terms of the market or par value of the loaned securities. The value of securities, either loaned or used as collateral, is based on last sale prices or in the discretion of the lender's agent. These values are marked to market each day and the undervalue or excess delivered to the appropriate party. Usually the maintenance value is 100 percent of the loaned securities' market value, after initial value of between 102 and 105 percent. Cash or non-cash distributions on non-cash collateral belong to the borrower, with delivery of such distributions required either immediately upon receipt or upon unwinding of the loan. Cash collateral may be invested by the agent bank for the lender, and usually the agent or lender may commingle the collateral with its own assets; agent banks are often permitted by the contract to invest the collateral in their own certificates of deposit.

As noted above at Section V.C., agent banks generally provide indemnities to lenders against failure of the borrower to return the borrowed securities. The provisions vary in the actions that the agent may take to fulfill this obligation; in some cases it must liquidate non-cash collateral and remit the proceeds, plus additional cash in order to equal the market value of the loaned securities and any distributions due, while in others the agent may either return equivalent securities or the market value of the loaned securities plus distributions due. The contracts are generally silent on the time period that the agent bank has to provide payment on indemnification. There is some anecdotal evidence that banks are feeling pressure to do away with their indemnity because of the effect of Risk-Based Capital Guidelines. Whether this will result in reduced numbers of banks willing to give indemnities, or the fading away of indemnities generally, waits to be seen.

C. Bankruptcy of borrower.

An important issue that arises in connection with securities loans are the actions that the lender may take if the borrower is placed in bankruptcy proceedings.

The United States Bankruptcy Code provides that an automatic stay of proceedings against the assets of a person against which a bankruptcy petition has been filed applies to assets in the possession of the person's creditor.[60] This generally means that a lender may not foreclose on the borrower's collateral until a court so permits, which can take a significant amount of time and which thereby exposes the lender to market risk on the collateral and to possible liquidity problems due to its inability to deal with the collateral. Because of the problems that this provision may cause for financial markets, there is an exception for collateral held by a "financial institution" in connection with a "securities contract."[61]

While no court case has interpreted this provision, it seems clear that a securities loan would be considered to be a "securities contract."[62] Also, it seems clear that any commercial bank is a "financial institution," and also that, somewhat surprisingly, any custody customer of a bank that acted as agent in a securities loan is defined as a "financial institution."[63] Thus, loans by banks and by banks as agent for custody customers would seem to be exempt from the automatic stay, which would provide them with the legal ability to dispose of the collateral promptly in the event of default on a securities loan in the event of a bankruptcy petition. However, this conclusion remains untested in the courts.

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[60] 11 U.S.C. § 362(a) (West 1979 and Supp. 1988).

[61] Id. at § 362(b)(6).

[62] Id. at § 741(7) ("'[S]ecurities contract' means contract for the purchase, sale, or loan of a security. . . .").

[63] Id. at § 101(20) ("'[F]inancial institution' means a person that is a commercial or savings bank . . . and, when any such person is acting as agent or custodian for a customer in connection with a securities contract . . . such customer.").

APPENDICES

Appendix A. Global Lending

Corporate pension funds, under the impetus of Federal legislation and with added liquidity from rising stock and bond markets, restructured their portfolios in the early 1980s. This diversification included the purchase of foreign securities. Public pension systems followed their corporate brethren, albeit at a somewhat slower pace. The result was a substantial supply of potentially loanable securities, mostly Japanese equities. Custom and regulation constrained many foreign institutions from lending securities in their own markets. As those markets grew, and became more internationalized, the demand for such loans also grew. American banks and pension funds found themselves postured to satisfy that demand and earn handsome fees by doing so.

Loans of foreign equities in their home markets can earn up to 300 basis points (net of transaction costs) on the face value of securities lent; this usually being split between the pension fund and its agent bank. By way of comparison, domestic securities loans generally earn from 30 to 100 basis points. One could reasonably argue that the higher fees from offshore activities reflect the greater risks borne by the agent and to a lesser extent, the lender (as discussed below). A recent article in Pensions & Investment Age reports that five global custody banks offered this service at year-end 1988: Bankers Trust Company, NY; Boston Safe Deposit & Trust Co., Boston; Chase Manhattan Bank, NY; Northern Trust Co., Chicago; and Harris Trust Company, Chicago.[1] These, and other banks now providing the service, allow

[1] Marlene Givant Star, "Global lending gathering speed", Pensions & Investment Age, Oct. 17, 1988, p. 60.

institutional investors to lend their securities overseas without having to run the complicated process in-house, although a few, large lenders are moving in that direction. From the agent's perspective, spreads on domestic securities loans have narrowed as the business has matured. These narrower spreads, according to a recent article in American Banker,[2] have pushed the major agent banks to look to foreign markets for enhanced profits.

The Financial Times reported that speakers at a February 4-5, 1988 conference on securities lending complained about a shortage of borrowable international stock.[3] The Times observed that many pension funds were overweighted in equities relative to their historical norms. Because of this demand, and for borrowable international stock, those funds could boost income. This cash flow would in turn reduce the risks attending their overall equity positions. Rough estimates of overseas securities lending indicate daily average outstandings of about $3 billion in Europe (including Euro-Clear and CEDEL) and about the same amount in Japan.

The wider global spreads may be attributable to a lack of competition in those markets, or a greater degree of riskiness, or both. In the latter regard, there appear to be five sources of risk in global lending: First, such loans now involve physical securities and this exposes the agent and borrower to intra-day settlement risk. For a Japanese loan, the securities are delivered in Tokyo and the collateral is delivered in New York. Although each party accepts intra-day risk on one side of the transaction, there is not necessarily a complete offset. This risk is lessened if a book-entry system is used. Second, the collateral is typically the local currency which is usually converted into dollars (i.e., exchange rate risk) for investment

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[2] Jed Horowitz, "Trust Departments Plan to Tap Japan; As Lucrative Securities Lending Arena", American Banker, Mar. 24, 1988, p. 1.

[3] _____, "Pension Funds were Overweight In Equity", Financial Times, Feb. 20, 1988, Section I, p. 9.

in the U.S. money market. Also, marks-to-market may be more difficult. Third, credit evaluation of borrowers may be more difficult, although many of the borrowers are the same broker/dealer firms active in the government securities market. Fourth, valuations for marking-to-market may be less timely or precise. (This is usually compensated by a higher collateralization rate; one New York bank requires 105 percent collateral on its Japanese loans compared to 102 percent for domestic ones.) Finally, regulatory requirements and practice (including taxation) may be difficult to learn or otherwise might be unpredictable. By way of illustration, cultural currents may be constraining the lending of equities in Japan: Some 80 percent of trading on the Tokyo Stock Exchange is for individual investors, who are likely to hold an issue for retirement in a personal brokerage account. This limits the supply of lendable securities. Short sales (a key reason for borrowing securities) are viewed as a lack of respect for the issuer, which may constrain the demand for lendable securities. A change in perceptions could dramatically change the competitive situation in Japan and, possibly, its regulation.

A September, 1987 article in Euro-Money magazine, published in the United Kingdom, pointed out that technology would speed the evolution of an international market for the borrowing and lending of securities.[4] It reported that an "automated market" was being developed to expedite settlements, add liquidity and generally encourage lending activity. Software called BLEND, being developed by I.P. Sharp Associates (a Reuters affiliate), would provide a real-time, on-line link between borrowers and lenders across the globe. Automation initiatives such as BLEND are made economically possible by increasing loan volumes, but their impact on the agency function may be worthy of attention. On one hand, such automation could streamline negotiations and inventory management or, on the other hand, perhaps eliminate the agency function by enabling lenders to deal directly with borrowers. Lenders

[4] Tony Shale, "The Sharp End of Borrowing and Lending", Euro-Money, Sept. 1987, pp. 421-429.

would still probably require a global custodian, a valuation service for monitoring collateralization levels and a credit rating service for monitoring borrowers. The wide spreads would more than compensate for these costs, leaving a substantial risk premium and profit. One illustration of such an approach is that taken by CREF (the $30 billion College Retirement Equities Fund), which has been lending foreign securities for five years without using a master trust bank. One CREF official noted in a 1987 interview, "We had very good profits last year. We do everything ourselves; I think that's the secret to our success."[5] Obviously, a fund the size of CREF can achieve economics of scale in global lending that are beyond the reach of smaller funds.

An operational problem can arise as a pension fund sells foreign securities it has put out on loan. The agent will generally try to call the loan, which may be difficult in an international environment where much clearing is performed manually. The alternative is a substitution of lenders, providing that another pension fund has the same stock available for loan with that agent. This substitution feature is a unique benefit of the agency function.

Global lending is further complicated by national differences relating to:

Collateral:

- pricing sources and discrepancies
- mark-to-market parameters (generally 105 percent to 110 percent)
- cash movements and rebate procedures

Corporate Actions:

- rights offerings
- recalls and buy-ins

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[5] Marlene Givant, "Lending of global securities heats up", Pensions & Investment Age, June 15, 1987, p.41.

Taxation:

- withholding taxes for dividends
- stamp taxes for dispositions of securities

Varying Degrees of Supervision:

- Japan: few lenders (Japanese Securities Finance Company is the sole recognized one), most regulated of major financial markets
- United Kingdom: more lenders, but a high degree of regulation; uncertainties attending post-1992 activity
- United States: many lenders, limited supervision in comparison to the Japanese and European financial markets.

Appendix B. Mortgage-backed Securities Lending

Lending of mortgage-backed securities cannot be viewed in the context of government securities lending. In fact, the most prevalent form of financing short mortgage pass-through positions (i.e., "dollar-rolls" or "buy/sells") would not be legally or technically defined as securities loans. However, a brief discussion of the mortgage financing market is offered here in an attempt to provide a broader understanding of the lending market. Moreover, mortgage lending practices form a good comparative base from which to view the more evolved government lending market.

Mortgage lending is not as highly developed as government lending, but has developed along two lines: (1) the lending of GNMA, FNMA, and FHLMC pass-throughs are done directly by mortgage trading desks as dollar-rolls or buy/sells, and (2) the lending of CMOs is beginning to grow and mirrors the lending of corporate debt obligations more than it does governments.[1]

Mortgage pass-throughs are principally lent directly from trading desks, rather than through a financing desk. As noted above, these loans are referred to as either dollar rolls or buy/sells. In this transaction type, a dealer (the borrower) will buy a specific pool of mortgages and simultaneously sell the customer (the lender) a generic pool, at a specific coupon level, for forward settlement. The price differential between the buy and the sell can be viewed as the dealer's borrowing fee for obtaining use of the "purchased" security, with the term of the loan defined as the length of time until settlement of the forward sale.

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[1] Presently, CMO lending is relatively dormant; however, some participants believe that lending in this area is bound to grow in line with increased use of the CMO vehicle by investors.

Buy/sells or dollar rolls are handled directly between the trading desk and the customer because of the sophisticated nature of the mortgage product. Pricing of such a loan will largely be a function of the prepayment speed of the specific pool "purchased" by the borrower. That is, changing prepayment rates is the single most influential marginal factor for pricing mortgage pass-throughs. The esoteric nature of prepayment modeling tends to limit mortgage buy/sell or dollar roll counterparts to dealer trading desks and their sophisticated customers. Traditional agents or more passive mortgage investors are typically not participants in the lending of mortgage pass-throughs because of these pricing complexities.

Accelerated growth of mortgage lending is inhibited by the following: (1) the generally complex nature of the mortgage product, (2) unique settlement and allocation requirements of the market, (3) high market segmentation, resulting in illiquid markets for many product types, (4) problems associated with exchanging physical securities,[2] and (5) complexities of coupling forward settlement (which plays an important role in the mortgage market) with the open term convention of the more mature government securities loan market.

If lending of mortgages were to grow, it could have positive connotations in terms of fail rates and general dealing spreads. With active lending of mortgage securities, fail rates would tend to decline. Lending would also help add liquidity to the market, resulting in tighter, more efficient bid-ask spreads.

Some participants expect the next mortgage lending growth spurt to occur in the CMO sector of the mortgage market. This expectation is grounded on the belief that CMO issuance will continue to grow. As a result of such issuance growth, there will be more trading and shorting of the CMO product. The increased shorting of CMOs would in turn lead to

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[2] Although some mortgage-backed securities can be sent by wire, most remain physical. Given a successful immobilization effort, such as the establishment of the Participants Trust Company, lending growth would probably accelerate. However, immobilization of mortgages removes only one of the obstacles facing mortgage lending.

greater demand for CMO securities loans. However, growth in CMO lending may be somewhat hampered be the segmented nature of this derivative product.

For the foreseeable future, mortgage lending will be concentrated in the buy/sell activity of dealer trading desks. Dealers may also be able to successfully import the borrow program transaction type from the government market to cover short mortgage positions through loans. Through such programs dealers may be able to obtain knowledge about the lendable supply of mortgages before positioning in the security. Borrow programs also allow dealers to pledge some of their more illiquid mortgage collateral in exchange for more current mortgage securities. However, to date this form of the securities loan transaction type is not widely used to cover short mortgage positions.[3]

In sum, development of mortgage lending is dependent on developments in many other areas of the mortgage market. Moreover, these developments will also shape lending's eventual impact on the mortgage market.

[3] Ironically, it is used more frequently in combination with government RPs to finance long mortgage positions, as discussed in Chapter II.

Appendix C. Text of Provost

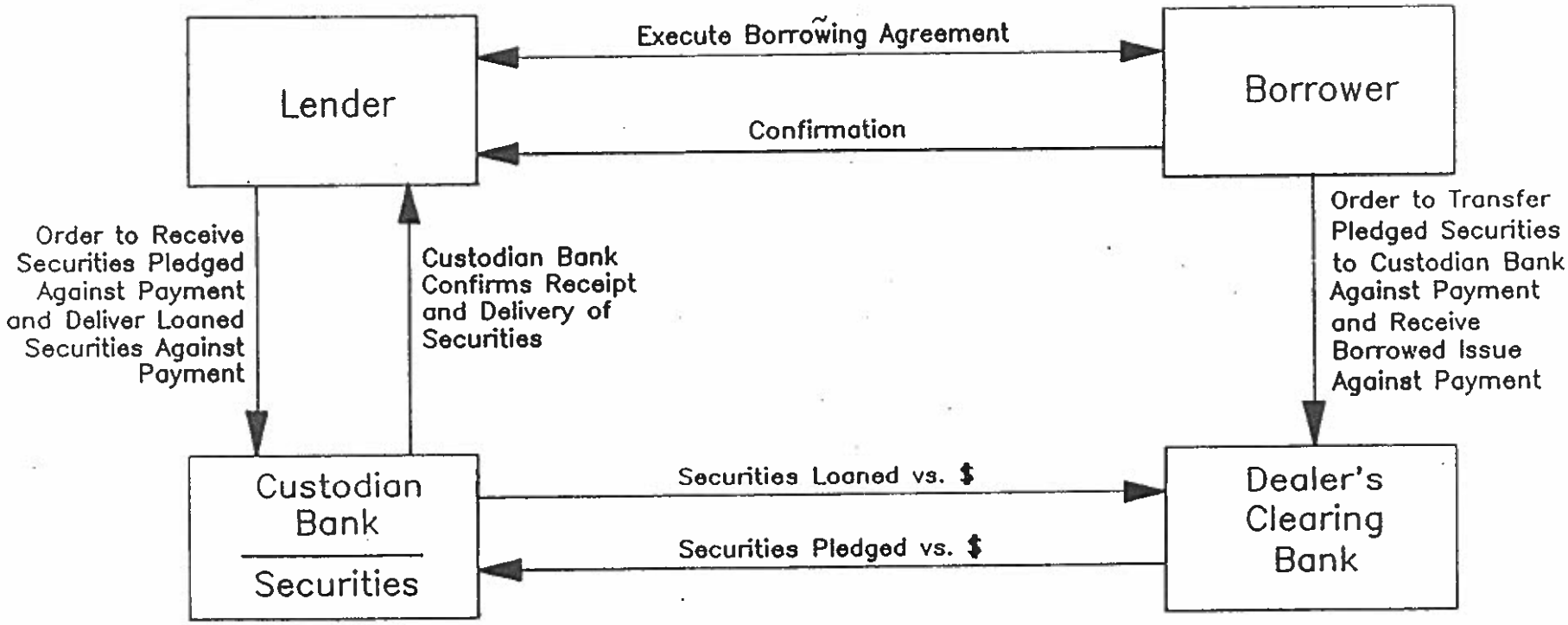
But the borrower of stock holds nothing for account of the lender. The procedure adopted and the obligations incurred in effecting a loan of stock and its delivery upon a short sale neither contemplate nor admit of the retention by either the borrower or the lender of any of the incidents of ownership in the stock loaned. The seller, having contracted to sell securities which he does not own, is under the necessity of acquiring dominion over stock of the kind and amount which he has sold, with unrestricted power of disposition of it in order that he may fulfill his contract. Whether his broker acquires the stock by purchase or by giving to the lender of it the market value of the stock plus his personal obligation to acquire and return to the lender, on demand, a like kind and amount of stock, the legal effect of the transfer is the same. Upon the physical delivery of the certificates of stock by the lender, with the full recognition of the right and authority of the borrower to appropriate them to his short sale contract, and their receipt by the purchaser, all the incidents of ownership in the stock pass to him.

When the transaction is thus completed, neither the lender nor the borrower retains any interest in the stock which is the subject matter of the transaction and which has passed to and become the property of the purchaser. Neither the borrower nor the lender has the status of a stockholder of the corporation whose stock was dealt in, nor any legal relationship to it. Unlike the pledgee of stock who must have specific stock available for the pledgor on payment of his loan, the borrower of stock has no interest in the stock nor the right to demand it from any other. . . . For the incidents of ownership, the lender has substituted the personal obligation, wholly contractual, of the borrower to restore him, on demand, to the economic position in which he would have been, as owner of the stock, had the loan transaction not been entered into. 269 U.S. at 455-56.

Appendix D. Diagrams.

Securities Borrowing vs. Pledge

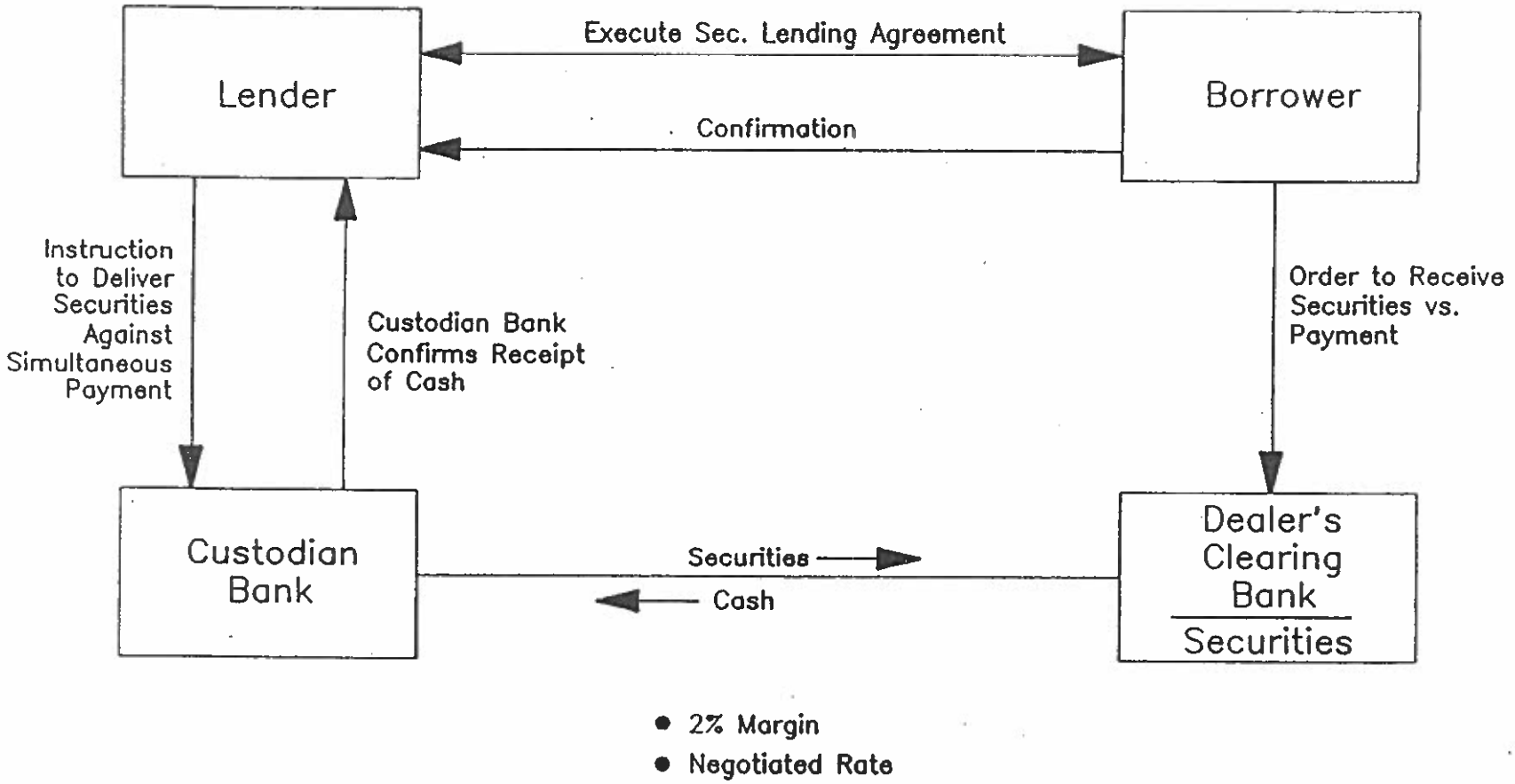
Collateral to Lender/Specific Issues to Borrower



- 2% Margin
- 50 Basis Points Fee
- Loaned Securities May be Recalled by 10:00 AM

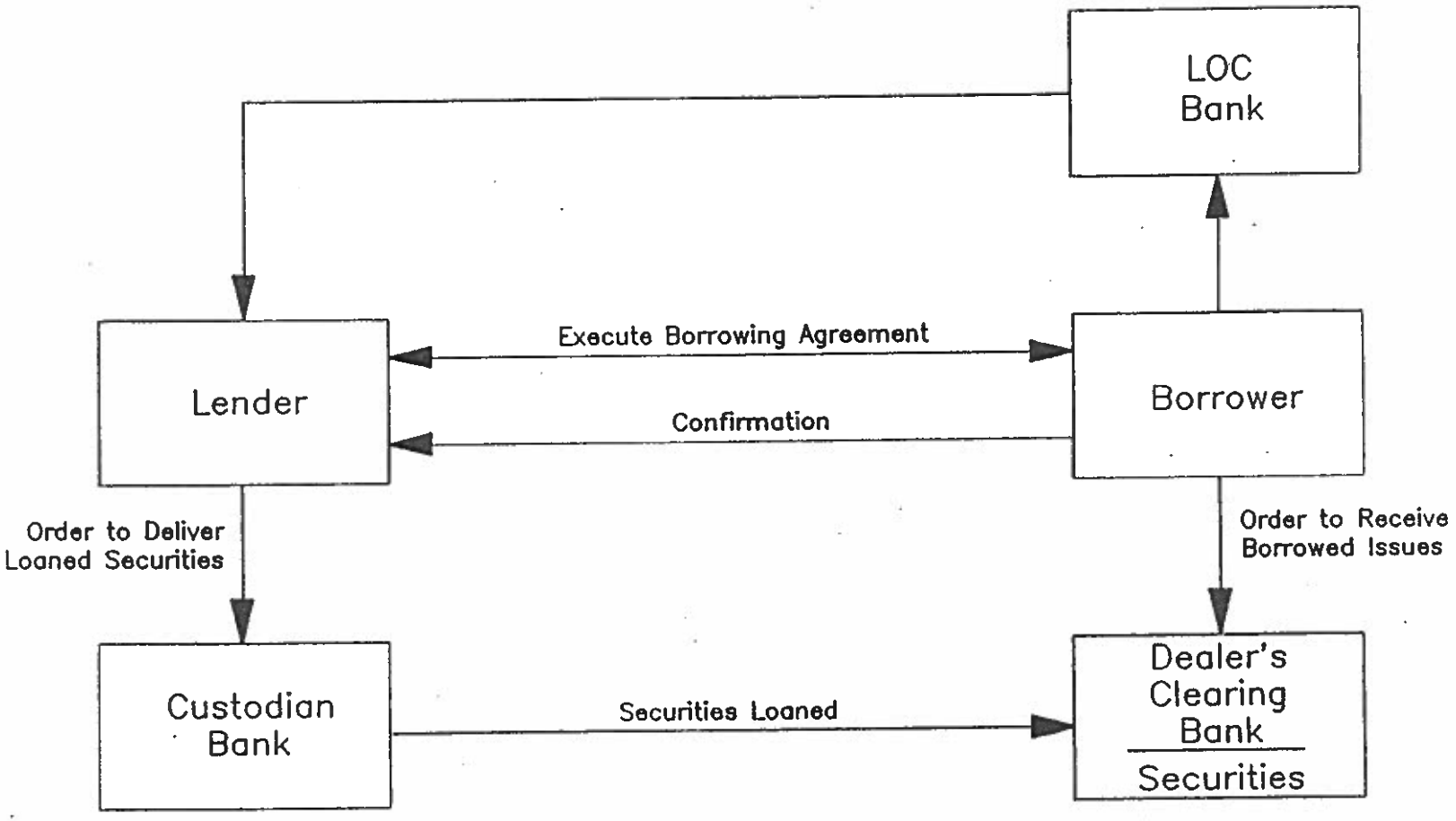
Borrow vs. Cash

Collateral to Borrower/Cash to Lender



Securities Borrowing vs. Letter of Credit

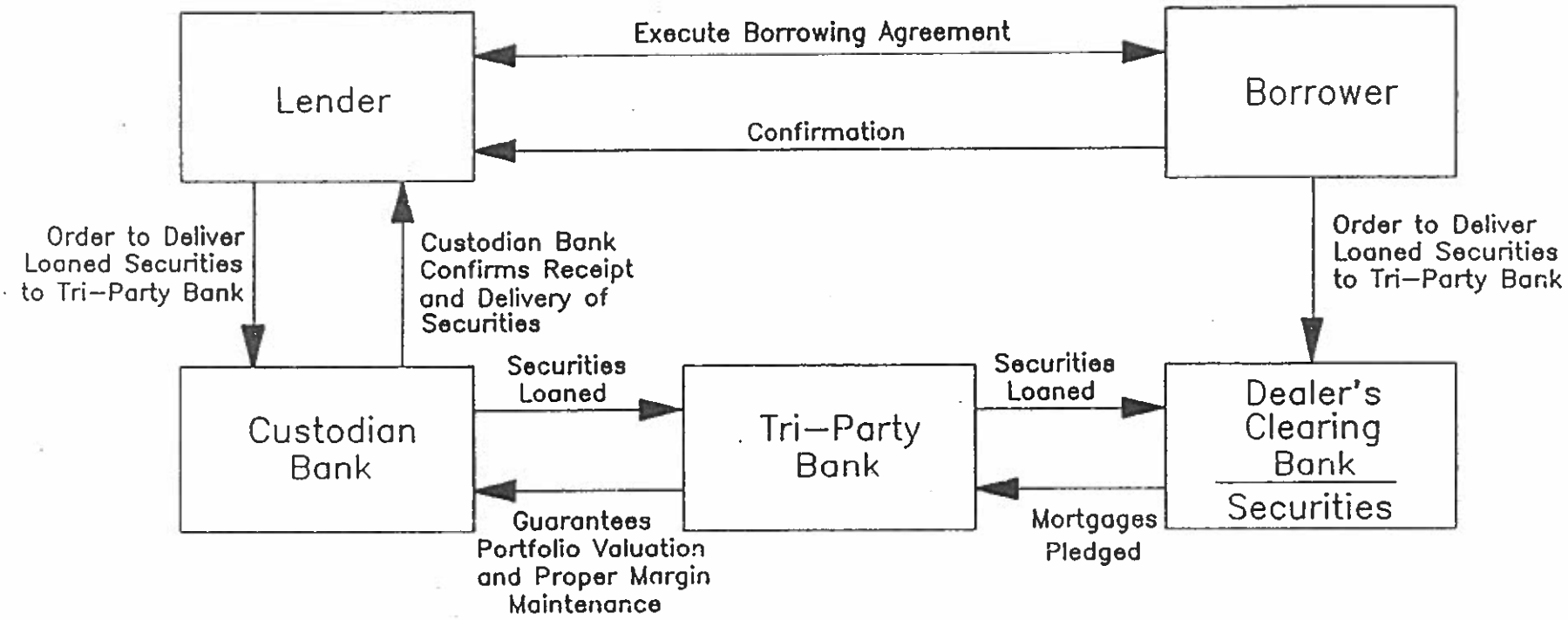
Collateral to Borrower/Letter of Credit to Lender



- 2% Margin
- 25 Basis Points Fee
- Unlimited Right of Substitution

Borrow Program

Collateral to Borrower/Mortgage–Backed Collateral to Lender



- 2% Margin
- 20–30 Basis Points Fee
- Entire Government/Agency Portfolio Available for Loan