



A Report to Market Participants and Regulators
Regarding Proxy Voting Practices and Issues

Borrowed Proxy Abuse: Real or Not?

Do activist hedge fund managers routinely borrow shares from beneficial owners, so as to vote against their wishes at corporate annual meetings? And, if they do so, can the loans be arranged and held for almost no cost??

Data sourced by the
Risk Management Association,
SunGard ASTEC Analytics,
Broadridge Financial Solutions, Inc., and
The Depository Trust & Clearing Corporation

Analytics by the
Center for the Study of Financial Market Evolution

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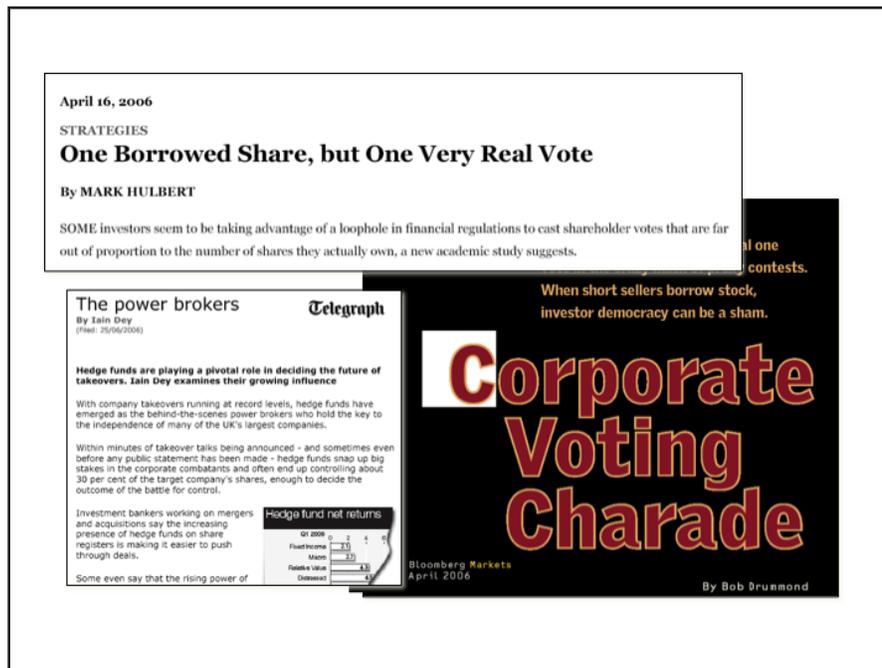
Selected Preliminary Findings

- “In 2006, a team of academic researchers claimed to find evidence of “vote buying” and manipulation of corporate governance in the U.S. equities securities lending markets. Their studies claimed that spikes in equities lending activity on proxy record dates proved unequivocally that abuse by share borrowers was “widespread” and, further, that control of voting rights could be acquired at no cost.” p.1
- “To date, more than 800 million confidential securities loan records spanning the four years from January 2005 to December 2008 have been provided by 8 global lending agents. ... This database that has been made available for academic research into securities lending represents nearly 50% of all U.S. stock loan activity, as measured by the quarterly RMA composite activity report. By contrast, the academic research studies of 2006 and 2007 were based on data using 250,000 records” p.3
- “U.S. broker-dealers cannot borrow securities for any purposes not permitted by Federal Reserve Regulation T, as cited in the sidebar on this page. Borrowing equity securities for the purpose of controlling a proxy vote, or for the purpose of lending to customers for such purposes, could subject a brokerage firm to serious penalties” p.7
- “Furthermore, two conditions must both be met in order to be allocated voting rights. First, an investor must hold beneficial ownership of the securities, a status which is identified in detailed records of securities positions maintained by U.S. brokers in ledgers often generically referred to as the Stock Record. Beneficial ownership of shares as recorded in the Stock Record is the sole basis by which proxy votes are allocated by U.S. brokers and therefore short sellers and other “non-owners” are not allocated voting rights. The second necessary condition to vote is the possession or control of the securities on the proxy record date.” p.7
- “This test of the Substitution Effect is supportive of the industry’s contention that spikes in activity can be created by shifts in supply and tends to refute the academic allegations of prima facie borrower manipulation. These results also imply that very large datasets are required to fully explore the dynamics of the securities lending markets and that results based on single lender, or even limited-scope datasets are not likely to be representative.” p.11
- “In order for securities lending to contribute to proxy abuse, a non-owner must have a broker borrow more shares than the broker needs to fulfill delivery requirements, hold the borrowed shares over a proxy record date, and allocate the proxy votes to this non-owner... Even for shares that are held over a record date pending delivery on a short sale, broker dealer accounting systems that follow this standard do not allocate proxies to borrowed shares, eliminating the possibility of proxy abuse.” p.12
- “The research findings from our current study strongly imply that the Christoffersen team had inadequate data resources. Even though two corresponding databases were used to reduce sample bias, their team was unable to observe the substitution of borrowed positions, a dynamic that was taking place after recalls were issued by lenders who, among other motivations, intended to vote.” p.14
- “Accordingly, any further research into the relationship of securities loan rates and volume needs to account for these pricing dynamics, as well as for other factors such as rates of return on cash collateral investments. Without such an analysis, firm conclusions about the relationship between pricing and loan volume, or the effects of any particular factor such as the timing of record dates, may well result in invalid conclusions.” p.19

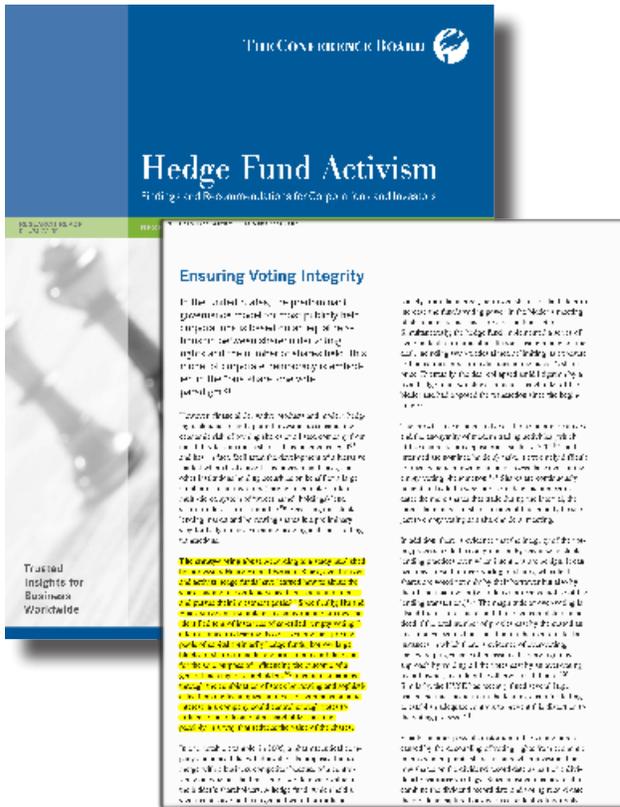
Executive Summary

In 2006, a team of academic researchers claimed to find evidence of “vote buying” and manipulation of corporate governance in the U.S. equities securities lending markets. Their studies claimed that spikes in equities lending activity on proxy record dates proved unequivocally that abuse by share borrowers was “widespread” and, further, that control of voting rights could be acquired at no cost. The most frequently cited studies were sharply critical of securities lending, alleging that activist hedge funds were borrowing securities from naive institutional investors in order to dictate the outcome of contested proxy votes, often to the disadvantage of the lenders.¹ These charges created headline news, not just in financial journals but also in mass media outlets.

Corporate advocacy groups called on regulators to force the disclosure of “hidden ownership” by activist hedge funds. The Federal Reserve, Securities and Exchange Commission, Internal Revenue Service and the Finance Committee of the U.S. Senate began to investigate securities lending markets. Investor advocacy groups, including the Council of Institutional Investors and the International Corporate Governance Network, along with leading public pension funds, added their calls for prudent regulatory structures to be rebuilt, along “with heightened international coordination.”



¹ Christoffersen, Susan E. K., Christopher Geczy, David K. Musto, and Adam V. Reed, 2007, “Vote Trading and Information Aggregation,” *Journal of Finance*, 62(6), December, 2897-2929 and Hu, Henry T. C., and Bernard Black, 2006, “The New Vote Buying: Empty Voting and Hidden (Morphable) Ownership,” *Southern California Law Review*, 79 (May), 811- 908.



Ensuring Voting Integrity

“The Empty Voting Abuse According to a study published by professors Henry Hu and Bernard Black, event-driven and activist hedge funds have learned how to abuse the stock lending market to advance their economic interest and pursue their investment goals. Specifically, Hu and Black surveyed a sample of recent corporate proxies and identified tens of instances of so-called “empty voting,” a term coined to describe those cases in which private pools of capital (primarily hedge funds) borrow large blocks of shares immediately prior to a record date and for the sole purpose of influencing the outcome of a general meeting of shareholders. In certain situations, through the combination of stock borrowing and sophisticated hedging techniques, an investor with no economic interest in a company could control enough votes to influence the outcome of a shareholder meeting, possibly in a way that reduces the value of the shares.”

The Conference Board, *Hedge Fund Activism: Findings and Recommendations for Corporations and Investors*, Working Group Report, www.conference-board.org, September 2008.

In 2007, member banks of the Risk Management Association (RMA) agreed to initiate a study of potential abuse in the securities lending market. As explained below, the study will be based on overwhelmingly more data than previous academic research, as well as insights by market participants with an in-depth understanding of how securities lending markets function.

To facilitate this study, the Center for the Study of Financial Market Evolution (CSFME) was engaged to collect and compile the necessary data resources, negotiate confidentiality arrangements and prepare a white paper of preliminary findings. In addition, CSFME conducted an outreach program to share its preliminary findings with regulators, institutional investors, broker-dealers, lending agents, and academics. Now that the majority of necessary data has been prepared for analysis, it is expected that CSFME will work with academic researchers to complete a thorough examination of securities lending across proxy record dates.

Resources and Methodology

To date, more than 800 million confidential securities loan records spanning the four years from January 2005 to December 2008 have been provided by 8 global securities lending agents. SunGard ASTEC Analytics assisted in the data compilation, while Broadridge Financial Solutions and the Depository Trust & Clearing Corporation (DTCC) provided lists of proxy and dividend record dates, respectively, for the entire four-year span of the study. This database that has been made available for academic research into securities lending represents nearly 50% of all U.S. stock loan activity, as measured by the quarterly RMA composite activity report. By contrast, the academic research studies of 2006 and 2007 were based on data using 250,000 records provided by only one custodial lending agent and one prime broker, with additional CREST data from the UK markets, covering the period from November 1998 to October 1999. As explained in the preliminary findings section below, the relatively limited scope of data available for previous academic research may have substantial implications for the robustness of research results.

Securities lending transactional information contributed for this study include loan and transactor identifiers, share volumes, daily loan balances, prices (rebate rates or fees), loan tenure, and collateral values. Daily changes in loan balances (including new loans and returns) have been calculated from the underlying data. Some key identifier fields, such as the individual transactors, were encoded by the data providers to maintain the confidentiality of market participants. CSFME encoded additional data elements, such as security identifiers, to further strengthen the security of the underlying data. Any data provided to subsequent academic research teams may be encoded to maintain confidentiality, as specified by the banks providing the data resources.

The data covers 7,276 U.S. equity issues that were loaned from 2005-2008. For each of these securities, the mean value and standard deviation of daily loan balances was calculated in order to identify events in which daily loan volume exceeded two standard deviations above the mean. Two standard deviations of volatility is the working definition for a “loan spike.” With the generous assistance of Broadridge, 28,035 proxy record dates were identified for the loaned equities during the four year period of the study. Similarly, DTCC provided 27,779 dividend record dates for the four year period. Using these loan spike events and the record dates, several analyses were completed and are reported in this paper. Additional analysis on loan pricing was based only on loans collateralized by cash,² which represent the vast majority of loans made in the U.S. stock lending market. The “price” of the loan was calculated as the spread between the federal funds rate (i.e., the “risk-free” rate a borrower could earn on cash) and the rebate rate (i.e., the rate a lender will pay the borrower on the cash collateral). This spread is typically called the “intrinsic value” of a loan and does not account for any additional lender earnings that result from investment of cash collateral.

² Pricing factors may differ between loans collateralized by cash and non-cash. For example, non-cash fees may account for collateral composition or market pricing. For this reason and since non-cash collateral loans were an insignificant portion of the database, they were excluded from pricing analyses.

Academic Critics of Securities Lending

“Record Date Capture: An alternate empty voting strategy, known as record date capture, involves borrowing shares in the stock loan market. ... Typically, the short-seller later closes out the short position by buying shares in the market and delivering them to the stock lender. But, omit the short sale, and stock borrowing becomes an easy route to empty voting.”

- ▶ **HEDGE FUNDS, INSIDERS, AND THE DECOUPLING OF ECONOMIC AND VOTING OWNERSHIP: VOTING AND HIDDEN (MORPHABLE) OWNERSHIP,**
HENRY HU, BERNARD BLACK ,
EUROPEAN CORPORATE GOVERNANCE INSTITUTE; JUNE 2006

“The mechanics of shareholder voting -- the voting architecture -- also need rethinking. These mechanics do not easily accommodate large-scale share lending programs involving, even for a single institutional investor, diverse lending arrangements and multiple decision-makers.” (footnoted reference to earlier version of Christoffersen paper, below)

- ▶ **The new vote buying: empty voting and hidden (Morphable) ownership,** Henry Hu and Bernard Black,
Southern California Law Review, volume 79, May 2006

“The standard analysis of corporate governance assumes that shareholders vote in ratios that firms choose, such as one share-one vote. However, if the cost of unbundling and trading votes is sufficiently low, then shareholders choose the ratios. We document an active market for votes within the U.S. equity loan market, where the average vote sells for zero. We hypothesize that asymmetric information motivates the vote trade and find support in the cross section. More trading occurs for higher-spread and worse-performing firms, especially when voting is close. Vote trading corresponds to support for shareholder proposals and opposition to management proposals.”

- ▶ **Vote Trading and Information Aggregation,**
Susan Christoffersen, Christopher Géczy, David Musto, Adam Reed.
The Journal of Finance, December 2007

Research Basis of the Critics' Thesis

A research paper by Christoffersen, Geczy, Musto, and Reed (2007), sponsored by Wharton and then published in the *Journal of Finance*, concluded that empirical evidence exposes an active market for vote trading within the U.S. corporate stock loan market. Based on a proprietary data set consisting of loans of U.S. shares by a single custodial bank in 1999 and by only one broker-dealer between 1996 and 2001, the authors claim that stock loan balances “spike,” i.e., are higher than average, on proxy record dates. According to their dataset, which is not available for validation by other researchers, loan volume increases on record date from 0.21% to 0.26% of outstanding shares. In their view, “the spike in borrowing on the record date strongly supports the existence of some record date capture.” Interestingly, these spikes are higher for firms with poorer performance, for votes that turn out to be close, and for votes that elicit greater support for shareholder proposals or opposition to management proposals.

Christoffersen also reaches the surprising conclusion that while borrowed votes are potentially very valuable in contentious proxy contests, the average vote sells at a zero price. By inference, they conclude that securities lending markets are subject to information asymmetry in which uninformed lenders transfer voting rights to better informed borrowers, who can therefore acquire these rights, in effect, for free.



In a related paper, which has been prominently discussed in the *Wall Street Journal*, Hu and Black (2006) argue that there has been a decoupling of economic ownership and voting ownership, which has potentially far greater implications for corporate governance. Using derivatives, investors can acquire stocks and associated voting rights, but hedge all economic exposure, while votes divorced from economic exposure can be acquired directly by borrowing shares. They analyze theoretical benefits and costs of what they term “new vote buying,” including the possibility that voters could have negative interest in firms, thereby benefiting when stock prices decline. However, although Hu and Black identified several instances in which investors exercised stock voting rights on securities in which they did not have commensurate economic interest (e.g., they hedged their investment positions), these hypotheses could not be tested on a large statistical sample and the empirical evidence therefore appears limited to several case studies. Furthermore, they do not assess whether “new vote buying” is economically significant, but they do indicate, as does Christoffersen, that transferring votes from uninformed to well-informed investors could improve economic efficiency.

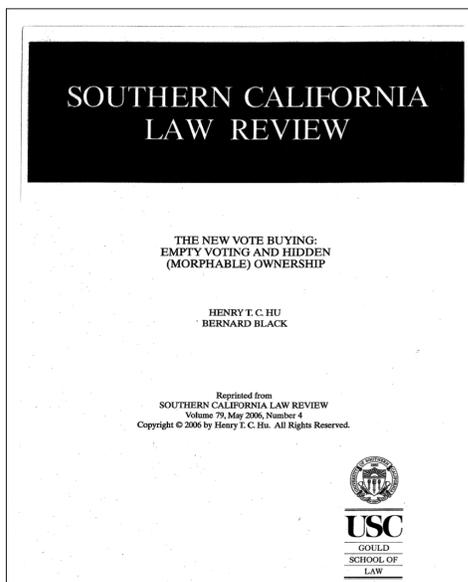
Both Hu and Black and Christoffersen seem to conclude that ill-informed lenders yield their shares to better-informed borrowers in order to benefit from this information aggregation. However, borrowers are the active agents in the securities lending market, and it must be demonstrated that borrowers have a positive economic interest in stock borrowing. Stock borrowers are not always outside agents, which is contrary to one of the assumptions in Christoffersen. Market participants assert that a more robust study that reflects the operating practices in the stock loan market could come to a very different conclusion and resolve the zero-cost paradox.

Taken together, the allegations in Christoffersen and Hu and Black indirectly challenge the social value of the securities lending market, which in the U.S. exceeds \$1.5 trillion in stocks, corporate bonds and government securities on any given day. This stance contradicts the long-standing views of market regulators, as well as practitioners, who regard securities lending as an important contributor to capital market efficiency.

Starting with the July 1999 report produced by the Technical Committee of the International Organization of Securities Commissions (IOSCO) and the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries (CPSS), numerous banking authorities and market regulators have described the securities lending market as essential to a well-functioning capital market. In their view, lending provides liquidity in direct and indirect ways. Examples of critical market activities supported by securities lending include repo transactions, M&A arbitrage in stock-for-stock deals (where an arbitrageur buys the target company's stock and sells short the acquiring company's stock by borrowing these shares), trading in options and other derivative instruments, and perhaps most importantly ensuring deliveries by

market makers and satisfying settlement delivery obligations. In these and other cases, securities lending not only provides essential liquidity for the smooth and efficient functioning of the broader capital markets, but also helps to avoid market squeezes.

In summary, some academics have alleged that the market for stock lending allows vote buying by informed market participants at zero cost from uninformed apathetic shareholders in order to influence the outcome of important proxy contests in a way that may not be in the best interests of shareholders.



The Proxy Process and Borrowed Shares

U.S. broker-dealers cannot borrow securities for any purposes not permitted by Federal Reserve Regulation T, as cited in the sidebar on this page. Borrowing equity securities for the purpose of controlling a proxy vote, or for the purpose of lending to customers for such purpose, could subject a brokerage firm to serious penalties.

Furthermore, two conditions must both be met in order to be allocated voting rights. First, an investor must hold beneficial ownership of the securities, a status which is identified in detailed records of securities positions maintained by U.S. brokers in ledgers often generically referred to as the Stock Record. Beneficial ownership of shares as recorded in the Stock Record is the sole basis by which proxy votes are allocated by U.S. brokers and therefore short sellers and other “non-owners” are not allocated voting rights. The second necessary condition to vote is the possession or control of the securities on the proxy record date.

This possession or control requirement, however, generates two related and non-manipulative activities that may cause brokers’ borrowing to increase, or spike, as proxy record dates approach. First, beneficial owners who loaned but wish to vote their securities will recall shares prior to record date, since there is no way to manufacture voting rights. In turn, brokers will have to borrow new shares to replace those that the beneficial owners recalled. Second, brokers also borrow securities to ensure that they have securities in their possession to allocate votes to those customers with securities positions in their brokerage accounts who have indicated a desire to vote their positions. This includes borrowing securities to replace shares that had been rehypothecated from customers’ margin accounts. These two drivers of borrowing demand are additive to one another and are not indicative of any manipulative activity.

Additional borrowing demand can also be generated when a dividend and a proxy record date coincide.

When a lender has shares on loan over a dividend record date, it is entitled to receive a substitute, or manufactured, dividend that is paid by the borrowing broker and typically charged to the short seller. Under the provisions of The Jobs and Growth Tax Relief Reconciliation Act of 2003, a U.S. taxpayer is taxed at a maximum rate of 15 per cent on “qualified” dividends, a status that is routinely applicable to dividend payments made by U.S. companies and, depend-

Permitted Purposes for Securities Lending

Without regard to the other provisions of this part, a creditor may borrow or lend securities for the purpose of making delivery of the securities in the case of short sales, failure to receive securities required to be delivered, or other similar situations. If a creditor reasonably anticipates a short sale or fail transaction, such borrowing may be made up to one standard settlement cycle in advance of trade date.

A creditor may lend foreign securities to a foreign person (or borrow such securities for the purpose of relending them to a foreign person) for any purpose lawful in the country in which they are to be used.

A creditor that is an exempted borrower may lend securities without regard to the other provisions of this part and a creditor may borrow securities from an exempted borrower without regard to the other provisions of this part.

- 12 CFR 220.10 *Credit by Brokers and Dealers (Regulation T)*, January 16, 1998

ing on tax treaties, many non-US companies. Manufactured or substitute dividend payments are not considered qualified dividend income and therefore are taxed at a less favorable rate. Consequently, in many cases, brokers replace customer borrowed securities so that they will have sufficient securities in their possession to ensure that that clients receive the tax benefit of receiving qualified income. This activity would be reflected in an increase in borrowing activity.

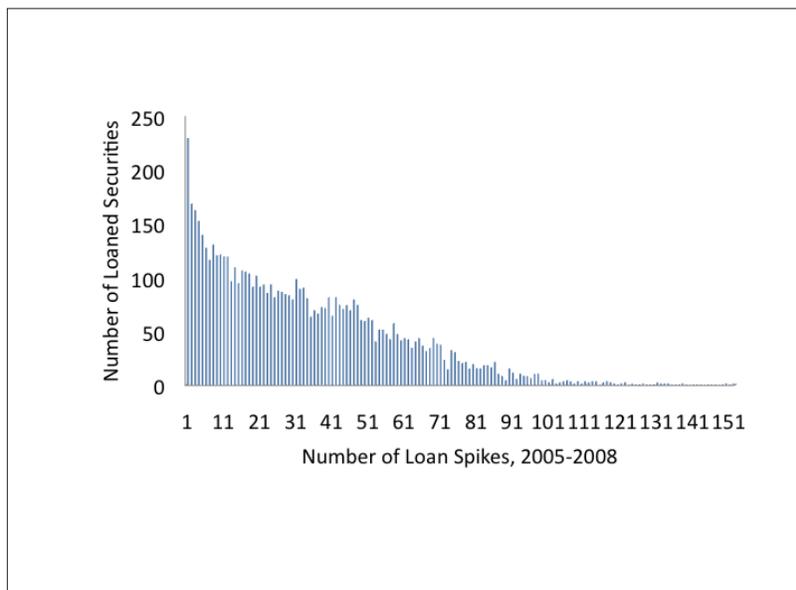
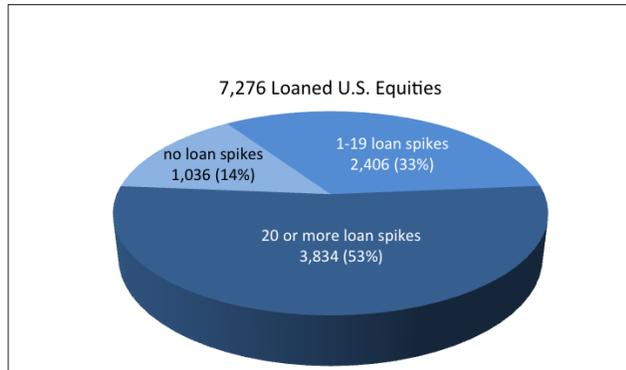
For these reasons, the financial industry has responded to reports of manipulative securities borrowing, first, by citing regulatory prohibitions against non-purpose borrowing and, second, by offering alternative explanations for the spikes observed and presented by the Christoffersen research team as evidence of vote manipulation. To validate these alternative explanations, the major trade groups of the securities lending community encouraged their members to provide data to the CSFME for testing purposes. Although the findings cannot exclude the possibility of selective manipulations, the results of CSFME's preliminary research (shown in the next section) challenge the assertion that vote manipulation is "widespread" in the securities lending industry. Moreover, these results also call into question the assertion that votes can be acquired for virtually no cost, since lenders do not increase their fees for lending shares before hotly contested votes. Indeed, the evidence clearly shows that fees in the securities lending market respond readily to increases in demand for shares in limited supply. Lenders who are not interested in casting their votes could earn premium fees by lending to brokers whose borrows are being recalled or who are attempting to borrow shares to permit customers with long margin positions to vote.

Preliminary Analytical Findings and Research Results: Spike and Rate Analysis

This paper has attempted to clarify an understanding of securities lending practices and the related financial flows using robust empirical sources and methodologies, in response to criticisms raised by a recent series of academic studies. Experienced bankers and brokers offered several reasons, other than proxy manipulation, to explain why spikes may have occurred on record dates. The following summary of findings gives strong support to their explanations.

Finding 1: Securities Lending is an Inherently Volatile Market

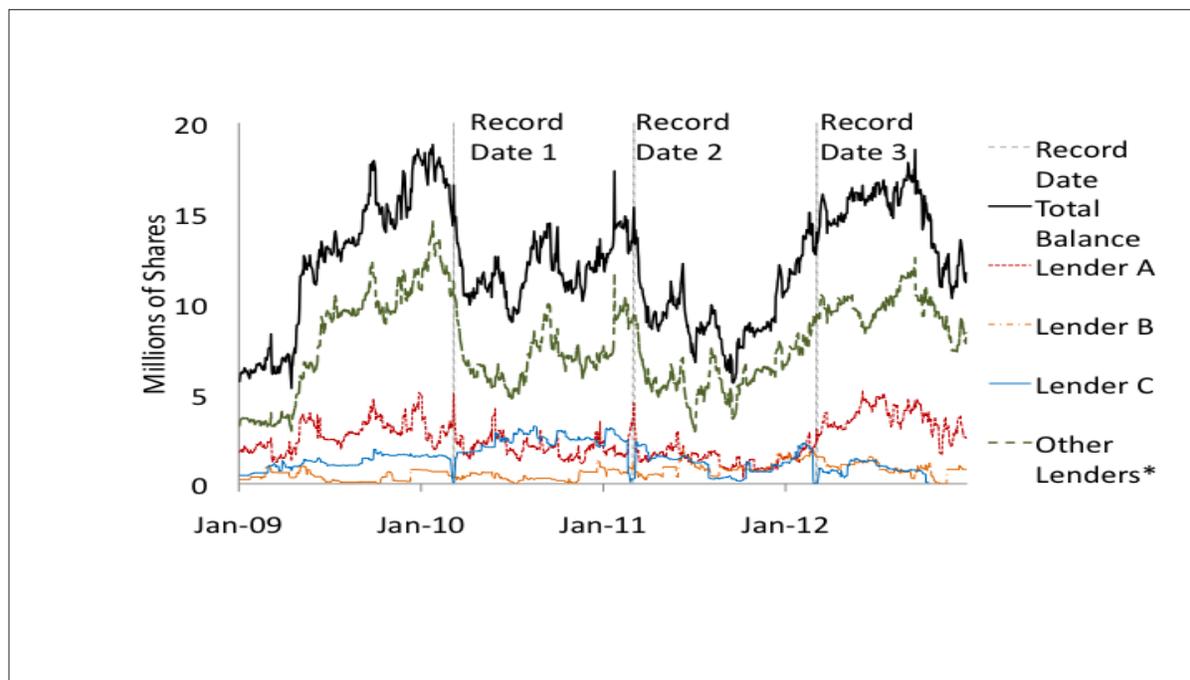
The data shows that securities lending is a market that by its nature experiences sharp fluctuations, or spikes in activity. Over half of the sampled stock issues recorded 20 or more loan spikes during the survey period. Only 14% of the loaned issues had no spikes. Overall, the distribution of lending activity is somewhat skewed right, with just over 4% of the observations more than two standard deviations above the mean (and almost no observations less than two standard deviations below the mean).



Since spikes are somewhat more likely to be found in securities lending than in trading markets, standard correlations between spikes and other events, such as proxy record dates, could result in misleading findings. It may be necessary to apply statistical transformations to the underlying data before conducting standard correlations. Based solely on Finding 1, customary measures of volatility alone cannot be used to validate either the academic critique or the industry rebuttal.

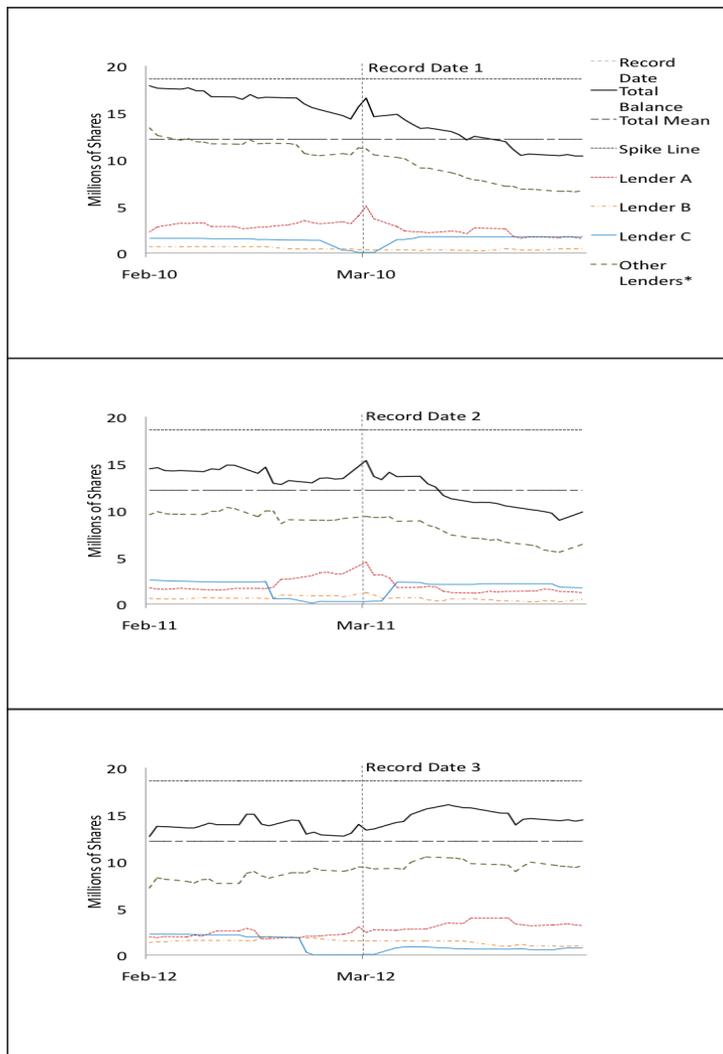
Finding 2: Single-Lender Loan Spikes Tend to Be Offset by Decreases in Outstanding Loans From Other Sources

A key finding of this study is that loan spikes experienced by individual lenders or agent banks often represent a shifting among sources of supply rather than an increase in market-wide lending activity. For example, the chart below shows the lending activity and record dates for a single security over the four years of this study. Loans spiked for “Lender A” on the first two record dates and for “Lender B” on the third record date.



With only the results of these two lenders, one could reasonably assume that loan spikes and record dates could be correlated. Yet, by contrast, the loan activity of “Lender C” decreased across all three record dates. It is possible that a lender sold its position, recalled the securities to vote in an upcoming proxy event, or recalled the securities to receive actual rather than manufactured dividends at times when both proxy and dividend record dates coincide. Therefore, for all three of these dates, loan spikes by some lenders were offset by loan reductions of other lenders, creating a smoothing effect for overall industry lending activity.

This loan substitution effect can be seen more clearly in the three charts to the right, which focus on the trading days around record date of the example security. It raises substantial questions about previous research that was based on single agent results. Christoffersen, for example, found “The connection between voting and lending is clear and strong. Loans that convey votes are in much greater quantity than loans in general; loaned shares spike from 0.21% on average to 0.26% on the record date, a difference that is far beyond the prevailing volatility. Because each loan separates votes from economic exposure, one might have expected less lending on record dates, because this moves corporate control toward one-share-one-vote. But we find more lending, moving control away from one-share-one-vote. So the lending market does in fact host a market for votes.”



The data shows that this loan substitution effect smoothed two-thirds of all single-lender loan spikes experienced by the 7,276 loaned U.S. equities within the transaction database.

Of the remaining 936 record dates that occurred industry-wide, industry spikes corresponded with lender spikes on 794 record dates, or 30% of the total, and industry spikes occurred without lender spikes on 142 record dates, or 5% of the total record dates between the time period of 2005-2008.

This test of the Substitution Effect is supportive of the industry’s contention that spikes in activity can be created by shifts in supply and tends to refute the academic assertions of prima facie borrower manipulation. These results also imply that very large datasets are required to

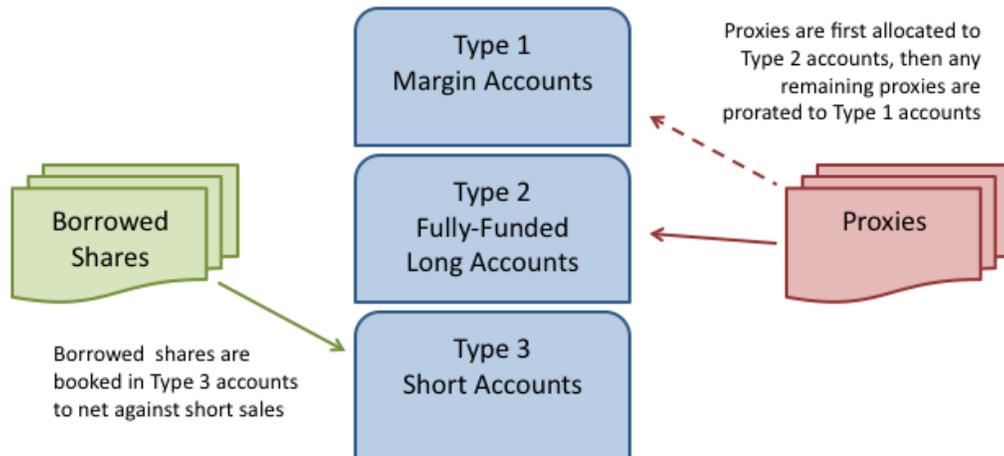
Anomaly	Issue Count	Frequency
Total loan spikes	2,654	100%
Lender spikes; no industry spikes	1,718	65%
Industry and lender spikes	794	30%
Industry spikes; no lender spikes	142	5%

fully explore the dynamics of the securities lending markets and that results based on single lender, or even limited-scope datasets are not likely to be representative. For example, correlations between loan activity at a single agent and loan prices (which are set by industry supply and demand) may not be valid, especially if the lender's loan balances fluctuate because of substitutions rather than changes in supply and demand. Accordingly, additional data is needed even beyond the scope of this white paper to properly analyze any relationship between lending activity and the corporate governance process.

Finding 3: Brokers Do No Allocate Voting Rights Associated with Borrowed Shares to Non-Owners

PRELIMINARY

Proxies may not be allocated to borrowed securities



Even if shares are borrowed and held (not shorted) over record date, **broker dealer accounting systems may not allow proxies to be allocated to borrowed shares**



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In order for securities lending to contribute to proxy abuse, a non-owner must have a broker borrow more shares than the broker needs to fulfill delivery requirements, hold the borrowed shares over a proxy record date, and allocate the proxy votes to this non-owner.

As shown in the illustration, borrowed shares for one participating survey firm are booked in a short account to net against the associated short sales. Proxies, however, are allocated first to fully-funded long accounts, as described previously, then remaining proxies are distributed in a prorated format to margin accounts. Even for shares that are held over a record date pending

delivery on a short sale, broker dealer accounting systems that follow this standard do not allocate proxies to borrowed shares, eliminating the possibility of proxy abuse.

To the extent this firm’s procedure conforms with industry practices, it would be very unlikely if the academic criticisms were to be validated. However, no survey of the industry’s proxy allocation practices was conducted.

Finding 4: Loan Spikes Occur Routinely in the Securities Lending Market

Perhaps the most important preliminary finding is that loan spikes are no more prevalent during proxy record dates than other periods of the year. Overall, there were 28,035 proxy record dates for the 7,276 loaned U.S. equities in our transaction database from 2005-2008.

Event	Issue Count	Frequency
All proxy record dates	28,035	100%
No loan activity	7,271	26%
Regular loan activity	19,728	70%
Loan spikes	936	3%

On a quarter of these dates, there were no loans outstanding for the associated securities; another 70% had lending activity within normal ranges. However, loans did spike around 3% of the record dates of 898 different securities, which some could interpret as borrowers increasing demand to acquire voting rights in advance of record dates. There are several possible explanations as discussed above. First, these loan spikes could occur due to chance – since spikes occur in securities lending, as shown in Finding #1, some are bound to happen on record dates. Second, there is the process of brokers borrowing shares to get possession and control of stock owned by clients so that those owner clients can vote their proxies.¹ Third, it is possible that some of the spikes identified here may have been caused by loans shifting away lenders from whom we do not yet have data (i.e., loan substitutions). Finally, spikes could occur because of concurrent dividend dates or borrowing to return shares to original securities lenders.

Conversely, it should be noted that proxy manipulation could be possible without loan spikes. If such loans were acquired through the securities lending market, particularly for closely-contested votes, it would be virtually impossible to identify the manipulation through broad, market-level studies such as this. Instead, security-specific investigations would need to be conducted on an ongoing basis to determine borrowers’ reasons for borrowing securities.

¹ It’s important to note that the effects of the recall/substitution/borrowback activities are not necessarily limited to the weeks surrounding record dates. For special- and hard-to-borrow-securities, significant delays in returning the recalled shares can stymie even the most diligent borrower’s efforts to obtain the securities in the open market. Short sellers may find that “crowded trades” make certain borrowed securities very illiquid. Generally, the more a lender is earning as a net fee, the more likely there will be a delay in recalling securities to vote. The higher fee is evidence that the particular share is “hard to borrow.” Conversely, the recall of any loan, especially a ‘hard to borrow,’ results in a loss of revenue for the lender and added cost to the borrower.

Finding 5. No Persuasive Evidence Exists to Prove that Borrowers are Exploiting Lenders in the U.S. Equities Lending Market

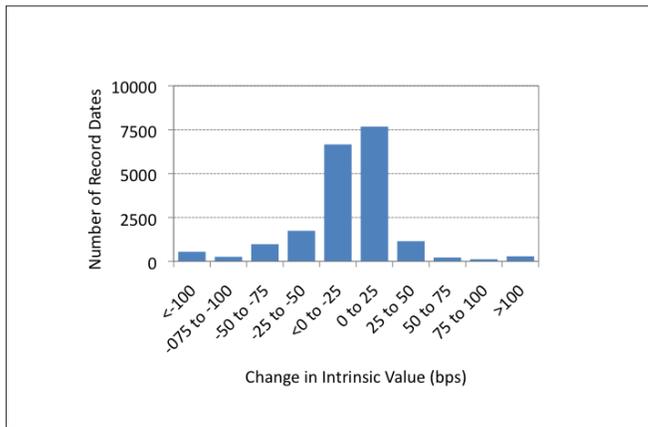
At the very outset of their paper, the Christoffersen research team reported that borrowers are exploiting lenders' ignorance in the equity lending markets:

“Our first, basic, result is that the lending market does in fact host a vote market. This is readily apparent in Figure 2, which contrasts loan volume on voting record dates with volume on surrounding dates, showing a record-date spike. Considering this first result, our second result is a surprise: the average vote sells for zero. ... Thus, the lenders are not so much selling these votes as yielding them. Since shareholders are likely better off voting their interests than giving their votes away, we propose a hypothesis: vote trading is motivated by asymmetric information. Shareholders do not know how to vote their interests, and are taking their chances that the votes transfer to investors who do know how and who share their preferences.” (pp 4-5)

The research findings from our current study strongly imply that the Christoffersen team had inadequate data resources. Even though two corresponding databases were used to reduce sample bias, their team was unable to observe the substitution of borrowed positions, a dynamic that was taking place after recalls were issued by lenders who, among other motivations, intended to vote. Furthermore, it is unclear whether the representativeness of the Christoffersen database was tested by comparison with known reference databases for the securities lending community, such as the Risk Management Association Quarterly Composite or the databases of the two main performance measurement consultancies.

As a result, Christoffersen interpreted the concurrent pricing stability as lender ignorance when, in fact, the flat price curve was more likely to be a function of systemic volume stability during substitution events, as explained throughout this paper. With data from only one custodial agent and one broker, it would not have been possible to map the expanding range and widening dispersion of rates during low-intensity record dates, much less during substitution events. The subtlety of pricing within securities lending must also be considered for longer periods than the data available to the Christoffersen team, since many loans which are kept on the books without being repriced during record dates eventually generate far more income simply because they are not returned as quickly after record date as the more rate-sensitive loans.

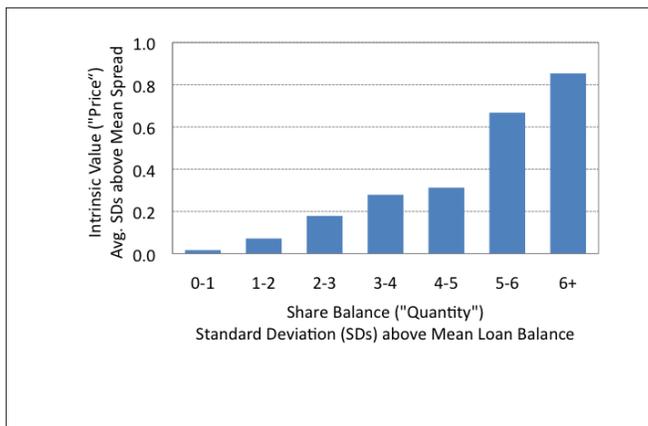
Securities loan prices did not change substantially over record dates, ...



As mentioned above, correlations between loan activity and prices that are based on single-lender or otherwise limited datasets may not yield robust findings. Substitutions of loans between lenders may cause volume increases for one lender but not the overall market; loan prices may not therefore be affected. Indeed based on almost 50% or all U.S. stock loan transactions from 2005-2008, average loan prices did not change materially over record dates, consistent with Christoffersen’s findings.

As shown in the chart, the distribution of changes in the spread between the federal funds rate and borrower rebates (typically called the intrinsic value of a loan) on record date relative to the 30-day leading average was largely normal; the overall mean change was -3 bps, meaning that average loan prices declined slightly over record dates.

... but prices did increase with overall industry demand, ...



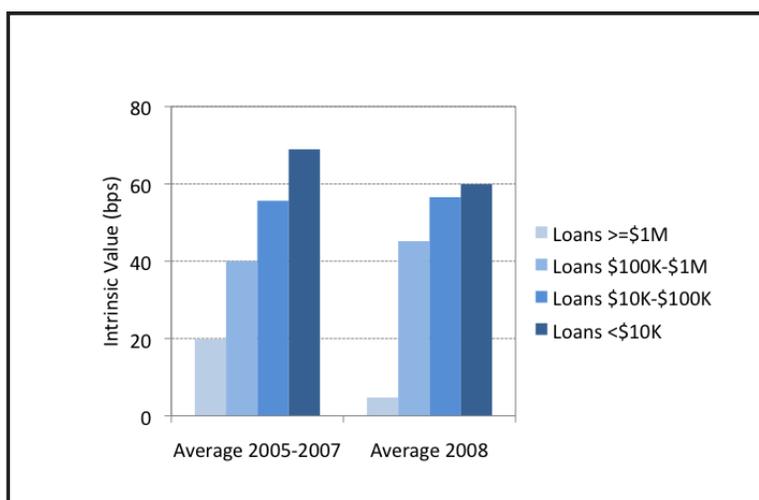
As shown in the chart, however, average loan prices rose steadily with the extent to which loan balances increased above typical loan volume. That is, prices increased with overall industry demand, consistent with basic economic theory. The fact that loan prices did not materially change over record dates provides compelling evidence that industry demand did not change substantially. In turn, this implies that substantial numbers of votes were not regularly acquired

through the lending market, contrary to previous findings.

... Implying that industry loan volume did not change substantially over record dates.

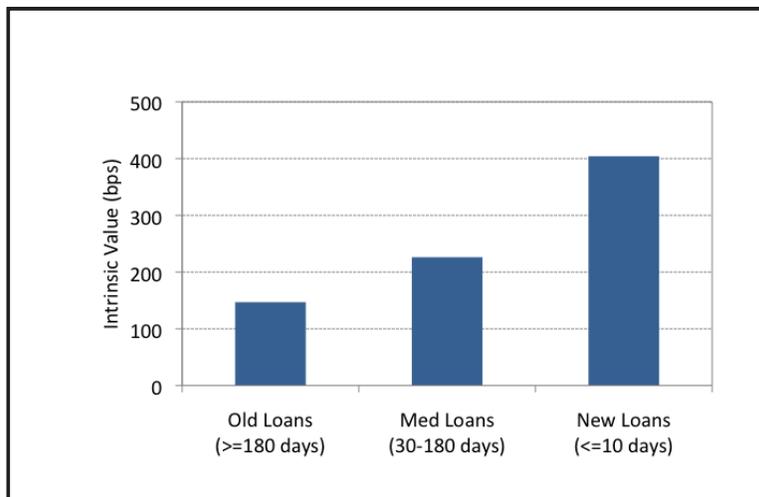
Empirical evidence therefore refutes that votes can be acquired in large quantities for free in the lending market. Vote acquisition would increase demand, which in turn would increase prices as shown above. Furthermore, at least some lenders recall loans prior to record dates to reacquire their voting rights; economic theory suggests that this contraction in supply would also increase prices. During a hotly contested corporate issue, a reasonable assumption could be made that both of these dynamics would occur: demand for non-owners to vote would increase just as lenders' recalls of existing loans tightened supply. Since average prices did not increase over record dates, it can be inferred that average industry loan volume did not either.

Several other factors need to be considered in a pricing analysis. For example, prices were consistently lower on large loans.



Furthermore, any robust analyses of pricing in securities lending markets must account for many other factors that affect loan rebate rates. For example, the intrinsic value of large loans tends to be lower than that of small loans, as shown in the chart. This dynamic partly results from relatively low prices for loans of easy-to-borrow securities (i.e., “general collateral” loans), which are frequently borrowed in large batches. The relationship holds true, however, when the sample is limited only to hard-to-borrow securities (i.e., “specials”). It also held true during the credit crisis, suggesting that “quantity discounts” are regularly considered when loan prices are negotiated between lenders and borrowers.

Intrinsic values were also lower on older loans, although lenders may have earned more on old, low rate loan.



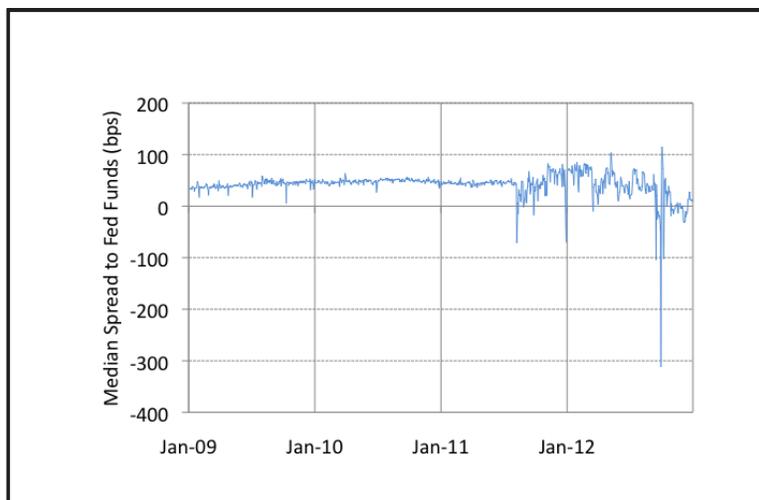
Loan prices are also affected by the expected stability or tenure of loans. As shown in the chart, intrinsic values of hard-to-borrow securities were higher on record dates for new loans than for loans that had been outstanding for weeks or months. That is, borrowers who got into the market early and held loans out for longer periods maintained relatively low costs to carry. Stable loans are preferred by borrowers, who avoid in their short portfolios both uncertainty and search costs for replacement securities when loans are recalled. They are also preferred by many lenders who can generate higher overall revenue from long-term, low rate loans than short duration loans at peak rates.

Best Prices May Not Mean Highest Earnings

Some market participants who have observed loan price dispersions have suggested that some lenders fail to receive the “best” rates because loan pricing is not transparent. As illustrated in the table below, however, lenders who demand the highest spreads on each loan may forgo revenue, since borrowers tend to close out higher priced loans first. So, in this example (which is based on the empirical average rates in the chart above), a lender will earn almost 7 times more revenue by maintaining a long-term/low rate loan as opposed to a short-term loan at a higher rate.

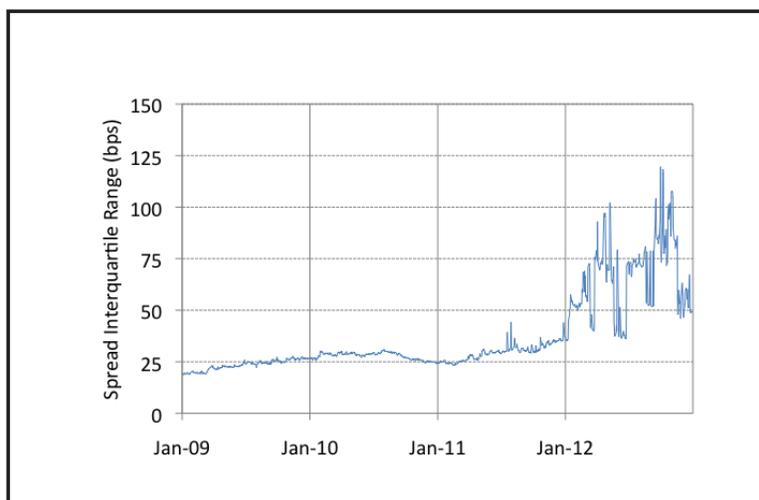
	New/Short Loan	Long-Term Loan
Loan Value	\$1,000,000	\$1,000,000
Spread (bps)	400	150
Days Outstanding	10	180
Annual Lender Earnings	\$1,111	\$7,500

During the Credit Crisis, loan pricing was driven more by demand for liquidity than demand for borrowed securities...



Another critical factor in any pricing analysis is any effect or trend in the overall financial markets. For example, the recent credit crisis had two major impacts on securities lending cash collateral investment pools, which in turn caused lenders to dramatically adjust their rebate rate levels. First, shortages of short-term liquid capital and decreased risk tolerances led borrowers to deleverage their investment portfolios, which led to a reduction in borrowing demand and unexpected redemption demands on cash collateral pools (as borrowers returned securities they had previously borrowed, lenders had to return the borrowers' cash collateral). Second, some cash collateral investment vehicles became highly illiquid. Selling these investments in an illiquid market would have generated substantial losses for collateral pools, while holding them to maturity would maintain pool value (although not liquidity). In some cases, however, lenders could only avoid liquidating these assets by providing sufficient incentives to borrowers to maintain balances within the collateral pools. They did so by raising rebate rates, sometimes above the federal funds rate, thereby causing negative intrinsic values (see chart above). That is, pricing of securities loans was driven more by the demand for cash than by the demand for borrowed securities, which has substantial implications for any interpretation between lending volume and pricing dynamics.

... and since the Credit Crisis affected various lenders in different ways, single-agent results should not be extrapolated to the whole securities lending industry.

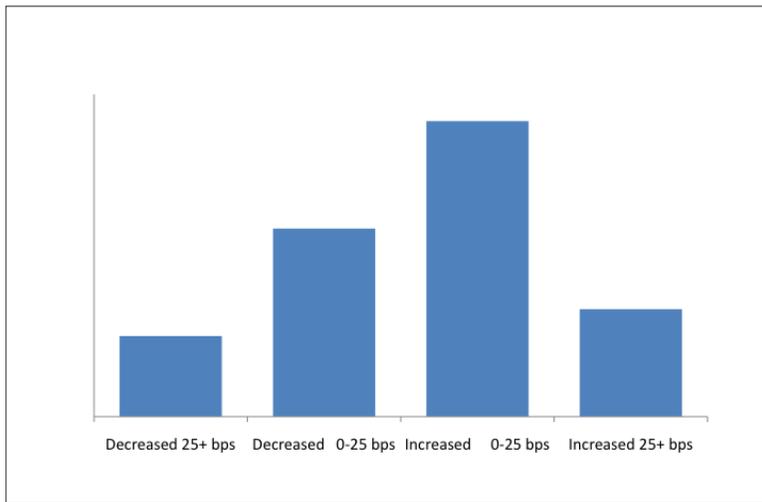


Furthermore, not all lenders experienced the same pricing pressures. While the overall volatility of loan prices increased as shown, there was an even larger relative increase in the dispersion of prices as measured by the inter-quartile range of daily loan rates on the same securities (see chart). As discussed before, this provides another example of how single lender/agent results may not be representative of over industry dynamics. An analysis of the pricing pattern of the lender with the most collateral pool stress during the credit crisis would likely result in findings far different than an analysis of the least stressed lender.

There are numerous reasons to question the validity of previous academic findings...

Based on these results, Christoffersen's conclusions that volume increased while prices did not materially change over record dates are subject to several challenges. First, prices increase with industry demand; so the findings that prices did not increase over record dates implies that industry demand similarly did not increase, which in turn suggests that vote accumulation was not a widespread phenomenon. Second, the pricing analysis did not account for several other factors that are known to have affected lending prices, including loan size, tenure, and overall financial market conditions. Third, single lender/agent results are not likely to be representative of overall market activity due in large part to the loan substitution affect discussed above and as evidenced by the rise in price dispersions during the credit crisis. Accordingly, any further research into the relationship of securities loan rates and volume needs to account for these pricing dynamics, as well as for other factors such as rates of return on cash collateral investments. Without such an analysis, firm conclusions about the relationship between pricing and loan volume, or the effects of any particular factor such as the timing of record dates, may well result in invalid conclusions.

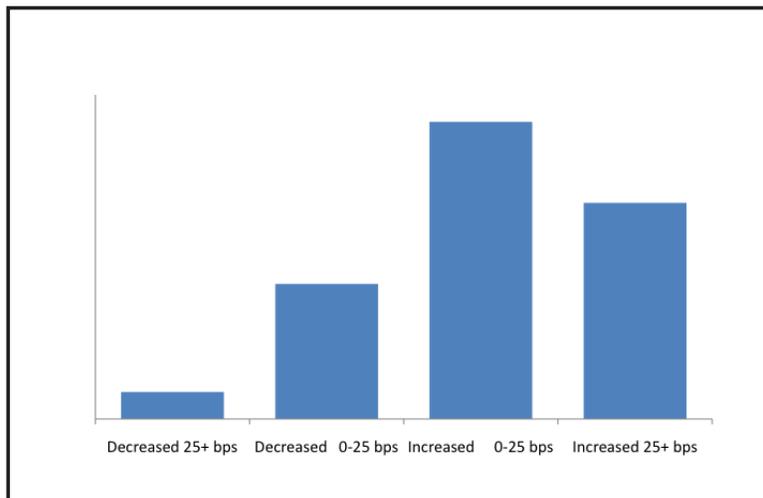
... and further analysis should be conducted on only the most material proxy events.



Further research should also include an analysis of lending and pricing patterns around the most material record dates, which can be defined in several ways. For example, the charts in this section are based on a set of securities and record dates considered to be significant by one institutional lender. The criteria for selecting these record dates included those elections where votes were conducted in special rather than annual meetings, where the lender had loaned a

substantial portion of these securities, and where the proxy resulted in a vote different from the preference of the lender. Other sets of important issues could include proxy votes that were highly contentious or in which the vote was particularly close, those with otherwise unexplained spikes in loan volume, and those of particular interest to securities lenders.

If vote accumulation occurred regularly, proxy events matching these criteria could be expected to include some level of vote manipulation. However, the top chart, which depicts the number of proxy events in which loan prices increased or decreased on record date compared to the preceding 30-day-average, shows a fairly smooth distribution of price changes. This suggests that, on average, market volume did not change substantially for these proxies, indicating that demand increases were not widespread over record dates. The second chart, which shows the number of proxy events with higher or lower price dispersions (inter-quartile range), suggests that price dispersions increased on record date for these proxy events, consistent with the analysis above. This finding indicates that changes in the cost to borrow, as well as the value of a vote, will be experienced on an inconsistent basis across the lending community.



Conclusions: Valid, Non-Manipulative Reasons Exist for Lending Spikes

1. Intrinsic Volatility

Securities lending is an inherently volatile market, so it would not be unusual for loan spikes to appear on proxy record dates. As a result, positive statistical correlations between lending spikes and record dates would not necessarily be suggestive of manipulation because the underlying distribution of lending activity is not “normal.”

2. Loan Substitutions

Substitutions of loans between lenders and agents may generate spikes for individual market participants without increasing the aggregate amount of outstanding loans. Take the case in which a lender recalls a loan, perhaps to restore its own (valid) voting rights. Borrowing short sellers may still need the loaned securities, so they will transfer their demand (and collateral) to other lenders. Therefore, loan balances will increase and could easily generate a loan spike for the second lender. However, the activity of the two lenders would net out, resulting in no change in overall industry activity or shift in issue-specific loan prices. Accordingly, the findings of studies based on the activity of just one or two industry participants should not be extrapolated to the industry as a whole. Instead, studies should be conducted only on very large datasets with a broad cross-section of participants.

3. Cost of Carry

Votes cannot be acquired for free, as securities loans are subject to both cost of carry and price adjustments based on the law of supply and demand. Borrowers must post collateral for loans and either forgo a spread on collateral investment (cash collateral) or directly pay a fee (non-cash collateral). As shown above, spreads and fees increase proportional with demand for loans and (or presumably reductions in supply) and costs of carry would likewise rise as spreads and fees increased. Borrowers seeking to obtain additional voting rights would not only have to pay these higher costs, but would also have to protect existing positions to secure their original voting rights when supply contracts as lenders recall their loaned shares.

4. Unauthorized Allocations

U.S. broker/dealers point out that Federal Reserve Regulation T prohibits borrowing of securities for any purpose but a “permitted purpose.” Proxy manipulation is most certainly not a permitted purpose under Regulation T. Furthermore, most loans are not held over record dates, and even those that are in transit for delivery may not be allocated any proxies. The vast majority of borrowed securities are used to make delivery on short sales, typically within three days for U.S. equities. For such securities, the voting rights transfer to the buyer of the short sale. However, even if securities are borrowed just before record date and credited to customer accounts, the accounting systems of key broker/dealers do not allocate proxy rights to those borrowed shares, effectively eliminating the possibility of manipulating proxy results through their securities borrowing programs.

5. Broker Borrowbacks to Replace Rehypothecated Securities

Lending activity may increase around record dates as broker/dealers borrow shares to return voting rights to their long holders in margin accounts. If a broker/dealer wants to have shares available to permit this owner to vote, the broker/dealer will borrow shares from another lender. As a result, lending spikes may result from the activities of brokers reacquiring voting rights for investors rather than for activist hedge funds or others who may be engaging in proxy manipulation.

Mission Statements

The Risk Management Association

RMA is a member-driven professional association whose sole purpose is to advance the use of the sound risk principles in the financial services industry.

Helping our members understand sound risk principles will contribute to enhance profitability and more efficient allocation of capital to support growth. Furthermore, individuals will be better prepared to meet the needs of customers and to grow professionally.

The Center for the Study of Financial Market Evolution

CSFME's mandate is to gather, compile, and scrub proprietary data files for use by regulators and academic researchers, by engaging sources that would not otherwise be available to market analysts. Transparency and reporting standards frequently lag behind financial market innovation during periods of rapid market evolution. Accordingly, academics or market regulators often lack the robust market data necessary to fully analyze market dynamics or develop sound policy that avoid unintended consequences.

Researchers occasionally attempt to overcome these data shortfalls by collecting and analyzing small proprietary datasets, but these datasets are usually granted only under tight nondisclosure agreements that make them unavailable to independent, subsequent researchers for testing and validation. CSFME's goal is to overcome these challenges by compiling and storing industry-wide datasets of proprietary information, conducting the compilation, quality control, and validation steps necessary to ensure dataset robustness, then making the datasets available for academic research, all while maintaining the strictest data protection and confidentiality standards.

However, the inherent challenges of compiling data from disparate sources, such as maintaining definitional consistency and integrating data in diverse formats, should not be underestimated. Financial institutions have different accounting systems that record historical activity within proprietary file structures. Even if one can overcome the structural dissimilarities among these proprietary accounting and transaction processing systems, there will still be firm-specific differences in data definitions, timelines, exclusions, asset identifiers, as well as the need for varying allowances with respect to additions, omissions, conversions, corrections and adjustments.