
Short Sale Position and Transaction Reporting

**As Required by Section 417 of the
Dodd-Frank Wall Street Reform
and
Consumer Protection Act**



This is a report of a study by the Staff of the Division of Economic and Risk Analysis of the U.S. Securities and Exchange Commission. The Commission has expressed no view regarding the analysis, findings, or conclusions contained herein.

June 5, 2014

Executive Summary

Congressional Mandate

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act” or “Act”) was signed into law on July 21, 2010.¹ Section 417(a)(2) of the Act directs the Division of Risk, Strategy, and Financial Innovation (the “Division” and now called the Division of Economic and Risk Analysis) of the Securities and Exchange Commission (the “Commission”) to conduct a study of the feasibility, benefits, and costs of:

- (A) requiring the reporting of short sale positions in publicly listed securities in real time,
 - (i) publicly or, in the alternative,
 - (ii) only to the Commission and the Financial Industry Regulatory Authority (“FINRA”),

and of the feasibility, benefits, and costs of:

- (B) conducting a voluntary pilot program in which public companies will agree to have all trades of their shares marked
 - (i) “short”
 - (ii) “market maker short”
 - (iii) “buy”
 - (iv) “buy-to-cover” or
 - (v) “long”

and reported as such in real time through the Consolidated Tape.²

This is the report of that study made to the Committee on Banking, Housing, and Urban Affairs of the Senate and the Committee on Financial Services of the House of Representatives specified in Section 417(b)(2) of the Act.

¹ Pub. L. No. 111-203 (July 21, 2010).

² See *infra* note 206 for a description of the Consolidated Tape.

Summary of Conclusions

This report represents the considered views of the Division, as informed by the processes described below, but the views expressed in this report do not necessarily reflect those of the Commission or the individual Commissioners, or of staff of other Offices or Divisions.

The Division studied the feasibility, benefits, and costs of a real-time short position reporting regime (“Real-Time Short Position Reporting”) to the public or only to FINRA and the Commission and the feasibility, benefits, and costs of adding new, short sale-related marks to the Consolidated Tape (“Transaction Marking”) in a voluntary pilot program (“Transaction Marking Pilot”). To assess the feasibility, benefits, and costs, the Division compared Real-Time Short Position Reporting and Transaction Marking to a baseline that includes currently available data as well as potential data from the prospective Consolidated Audit Trail (“CAT”).³ The Division concludes that none of these alternatives is likely to be cost-effective when compared to the baseline.

Baseline for Analysis

The Division examined the benefits and costs of Real-Time Short Position Reporting and the Transaction Marking Pilot by comparing the information provided by each to currently available and potentially forthcoming short sale data. A considerable amount of short sale data is currently available to investors, issuers, regulators, and other market participants and other data will potentially be available in the future. For example, investors, issuers, regulators, and/or other

³ Section III.B.1 *infra* contains a discussion of Exchange Act Rule 613, which requires that the national securities exchanges and FINRA submit a National Market System (“NMS”) Plan to the Commission to create, implement and maintain a Consolidated Audit Trail (“CAT”). Rule 613 provides that such NMS Plan require that the exchanges and FINRA and their members report specific data to a central repository. If the Commission approves the NMS Plan submitted by the SROs, certain of the data that would be required to be reported under the Plan would provide regulators with much of the short selling information that is the subject of this study. *See* Exchange Act Release No. 67457 (Jul. 18, 2012), 77 FR 45721 (Aug. 1, 2012).

market participants can get either free or paid access to short interest data, short sale volume, short sale transactions, and some securities lending data.⁴ In addition, regulators have access to Large Trader data⁵ and also could have access to CAT data. The Division found that market participants and other commentators are generally interested in getting more data on short selling, citing to shortcomings in currently available information.⁶ However, the Division also found that few issuers or investors currently directly utilize some of the additional short sale data that recently became available, including daily data.⁷

The Division investigated the feasibility of Real-Time Short Position Reporting and the Transaction Marking Pilot by examining the extent to which current systems can be altered to accommodate either short sale reporting regime and the cost to do so. For example, the Division considered changes to EDGAR,⁸ FINRA's Regulation Filing Applications system,⁹ the Consolidated Tape,¹⁰ order entry and order management systems,¹¹ and trade reporting systems.¹² The Division also considered the most feasible ways to create marks that participants currently do not collect or record.

Public Real-Time Short Position Reporting Program

The Division estimates that data from Real-Time Short Position Reporting would contain approximately 24 million short position changes per day initially.¹³ The information from public Real-Time Short Position Reporting would contain more timely information and potentially

⁴ See *infra* Section III.A.

⁵ See *infra* Section III.B.2.

⁶ See *infra* Section III.D. For example, some commenters view current short interest as stale, while other commenters believe short reporting should be symmetric with reports on holdings.

⁷ See *infra* Section III.A.3

⁸ EDGAR is the Commission's Electronic Data Gathering, Analysis, and Retrieval system. See *infra* Section V.A.

⁹ See *infra* Sections III.A.1 and V.A.

¹⁰ See *infra* note 206.

¹¹ See *infra* Section IV.D.

¹² *Id.*

¹³ See *infra* note 397.

more detailed information than is currently available publicly. The volume of the data and the potential for data errors could limit the utility, and thus the benefits, of this information.

Nonetheless, the Division believes that there are modest benefits in public Real-Time Short Position Reporting in discouraging abusive short selling, particularly if it facilitates better monitoring for abusive short selling or real-time surveillance by self-regulatory organizations (“SROs”). Finally, Real-Time Short Position Reporting could facilitate new research on short selling and short sale strategies.

The potential net effect of public Real-Time Short Position Reporting on market quality and capital formation is unclear. More precise and timely information about short selling could help the market adjust to new information faster, promoting price efficiency and hence capital formation. However, the particular information in Real-Time Short Position Reporting could also facilitate copycat and order anticipation strategies that could discourage liquidity supply, fundamental analysis vital to price efficiency, and hedging that facilitates capital formation. The risk of these effects may be amplified if Real-Time Short Position Reporting identifies short sellers.

Based on public comments,¹⁴ the Division believes that public Real-Time Short Position Reporting would likely require significant implementation costs because using current infrastructure may be infeasible. In addition, the Division found that short sellers are often in the best position to report their own transactions, but some do not receive trade confirmations in real time. These short sellers could also incur significant ongoing compliance costs to collect and report their short positions in real time.

¹⁴ See *infra* note 437 and Section V.A.7.

Real-Time Short Position Reporting Only to the Commission and FINRA

The Division believes that Real-Time Short Position Reporting only to the Commission and FINRA would provide these regulators with short selling data that is more timely and precise than the data that is currently available to them. However, if the Commission approves the CAT NMS Plan¹⁵ and CAT is implemented, the Division believes that Real-Time Short Position Reporting would provide regulators with little additional information than would be available from CAT. Further, the feasibility concerns and the implementation and ongoing compliance costs suggest that public reporting may not be substantially more costly than reporting to the Commission and FINRA only.

Transaction Marking Pilot

The Division first considered the feasibility, benefits, and costs of Transaction Marking, which is a necessary component of analyzing the Transaction Marking Pilot. The Division expects that data from the Consolidated Tape, containing the specified transaction marks, would contain approximately 23 million transaction reports per day initially.¹⁶ The information from Transaction Marking would contain more timely and more detailed information than short sale transactional data available today and more timely data than might be available from the CAT.¹⁷ However, the volume of the data and the cost of subscribing to data feeds could limit the utility, and thus the benefits, of this information unless data vendors provide summarized data. In addition, each transaction mark could represent many possible strategies, rendering investment decisions based on the marks risky, particularly for those who do not use the data to build trading models. Nonetheless, the Division believes that there are benefits in the information provided by

¹⁵ See *supra* note 3.

¹⁶ See *infra* note 260 and accompanying text.

¹⁷ See *supra* note 97.

Transaction Marking in more quickly inferring changes in market sentiment and helping to provide more accurate information during times of stress and increased uncertainty. Transaction Marking could also discourage abusive short selling, particularly if it enhances real-time surveillance by self-regulatory organizations (SROs). Finally, Transaction Marking could facilitate new research on short selling and short sale strategies, though not to the extent of Real-Time Short Position Reporting.

As under Real-Time Short Position Reporting, the potential net effect of Transaction Marking on market quality and capital formation is unclear. More detailed and timely information about short selling could help the market adjust to new information faster, promoting price efficiency and hence capital formation. On the other hand, the transactions marks could reduce liquidity because the “market maker short” mark could render market makers vulnerable to order anticipation strategies, particularly in stocks with few market makers. Transaction marks could also facilitate copycat and order anticipation strategies that could discourage both the fundamental analysis that is vital to price efficiency and hedging that facilitates capital formation. The Division believes that the risk of these effects on price efficiency and capital formation would likely be less than the risk under Real-Time Short Position Reporting that identifies short sellers.

In accordance with several commenters,¹⁸ the Division believes that Transaction Marking would likely require significant implementation and compliance costs. These costs would be incurred to update order entry, order management, and transaction reporting systems. However, the Division believes that the potential implementation and compliance costs of Transaction Marking could be much lower than those of Real-Time Short Position Reporting.

¹⁸ See *infra* note 320 and Section IV.D.

Finally, the Division considered the benefits, costs, and feasibility of the pilot aspect of the Transaction Marking Pilot. In particular, the Division considered whether such a pilot would provide data that could reliably test hypotheses about the economic effect of Transaction Marking. The Division believes that the issuers' ability to volunteer to participate in the pilot could be harmful to the utility of the pilot. The Division is concerned that researchers, including those in the Division, would not be able reliably to apply the results of the voluntary pilot to the stocks of all issuers that do not volunteer to participate in the pilot. In addition, the Division is concerned that the ability for issuers to volunteer to participate could render the pilot infeasible if too few issuers volunteer to participate. Finally, several commenters stated that the implementation and compliance costs of a Transaction Marking Pilot would be at least as high as those for Transaction Marking, regardless of how many issuers volunteer to participate.¹⁹ A pilot would also create additional costs associated with administering the pilot, though these may be small relative to the implementation costs of Transaction Marking.

Conclusion

As discussed in detail below, overall, the Division concludes that none of these alternatives is likely to be cost-effective when compared to the baseline, which includes the CAT. The Division concludes that the benefits from making Real-Time Short Position Reporting information available to the public and regulators are likely to be modest. In particular, the Division believes that Real-Time Short Position Reporting and Transaction Marking would provide regulators with little additional information than would already be available from the CAT. However, the Division concludes that the implementation and compliance costs associated with these alternatives, which could include updating or building a system to collect short

¹⁹ See *infra* note 360 and Section IV.E.3.

position reports, are likely to be significant, even if such data is made available only to regulators. Implementing the CAT will enable the Commission to reassess the extent of any additional benefits that may be derived from requiring Real-Time Short Position Reporting and Transaction Marking, and the costs of any additional infrastructure needed to collect and record such information. Finally, the Division concludes that a voluntary pilot in Transaction Marking is unlikely to be of much utility.

While this report concludes that, at this time, the short sale reporting regimes studied are unlikely to be cost-effective when compared to the baseline, the analysis contained in this report should still provide valuable insight to potential future rulemaking regarding short sale disclosure.

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I. Scope and Methodology

In conducting its study, the Division considered the broad range of potential benefits and costs of the specified reporting regimes. The staff conducting the study included Division economists, lawyers, and analysts including those who had conducted earlier studies and analyses of short selling, were conversant with the academic literature on short selling, and had experience analyzing short sale data. The Division also consulted other Commission Divisions and Offices with relevant expertise, including:

- Division of Enforcement;
- Division of Corporation Finance;
- Division of Investment Management;
- Division of Trading and Markets;
- Office of Compliance Inspections and Examinations;
- Office of General Counsel; and
- Office of International Affairs.

In consultation with these other Divisions and Offices, the Division conducted a preliminary analysis of the issues before collecting additional information and opinions from market participants, outside experts, and the general public. In particular, the Division made an initial assessment of the potential benefits and costs and identified feasibility issues of the regimes set forth in Section 417 of the Dodd-Frank Act, including the potential utility of the data that the regimes would make available to regulators and various market participants. The Division considered the likely effect of any new disclosure requirements from the two regimes on investing and short selling behavior, and, taking such behavioral changes into account, the effects of the availability of any new data on market quality, including price efficiency and liquidity, as well as on capital formation. The preliminary analysis also considered the compliance costs and technical feasibility of implementing and maintaining the reporting

regimes. This preliminary analysis provided the basis for determining what information to collect from market participants, outside experts, and the general public.

In early 2011 Commission staff began a series of meetings with representatives of a variety of industry participants, who provided their perspectives and opinions on both technical feasibility issues, and on the broader implications of the potential reporting regimes. Appendix A contains details on the participants in those meetings. On May 9, 2011, the Commission, on behalf of the Division, published a request for comment from all interested persons.²⁰ The Commission received 172 comment letters.²¹ The Division synthesized the information collected and analyzed it to create this report.

The analysis first sets forth the baseline and discusses how the short sale reporting regimes would produce information beyond that in the baseline (“incremental information”). The analysis also considers the potential uses of such incremental information before discussing the benefits and costs. While the analysis includes consideration of compliance costs to other market participants, the analysis of economic benefits and costs focuses primarily on those accruing to investors. The Division assessed the feasibility of the short sale reporting regimes under the current infrastructure and also considered whether the reporting regimes would require changes to current infrastructure.

This report does not address possible alternative reporting regimes outside the contemplation of Section 417(a)(2) of the Act. For example, the study does not analyze feasibility, benefits, and costs of the Commission adopting the daily (as opposed to real-time)

²⁰ See Exchange Act Release No. 64383; (May 3, 2011), 76 FR 26787 (May 9, 2011), available at <http://www.sec.gov/rules/other/2011/34-64383.pdf>.

²¹ See *infra* Appendix B: List of Commenters for the list of respondents to this request. Comments are available at <http://www.sec.gov/comments/4-627/4-627.shtml>.

position reporting required in a number of foreign jurisdictions,²² nor does the study address multiple definitions of “real time.” In particular, the report assumes that “real time through the Consolidated Tape” refers to the existing reporting requirements and the report addresses the feasibility, benefits, and costs of Real-Time Short Position reporting as soon as feasible. Similarly, the study of the Transaction Marking Pilot considered only listed companies because the Consolidated Tape collects trades and quotes in stocks of these companies only. In addition, the Division used the definition of “short sale” in Rule 200 of Regulation SHO under the Securities Exchange Act of 1934 (“Exchange Act”) as the interpretation of “short sale” transaction.²³ However, the Division did consider alternative interpretations of terms in the statute, such as a range of interpretations of the term “short positions”, which is not defined in the Exchange Act or in Commission Rules. The Division notes that many of the study’s conclusions regarding the feasibility, benefits, and costs of the specified regimes may be informative to similar possible alternative regimes as well.

Finally, the Division organized this report to cover the Transaction Marking Pilot before Real-Time Short Position Reporting. The Division believes that the Transaction Marking Pilot contains fewer alternative interpretations than Real-Time Short Position Reporting. The ordering thus allows the report to provide a clean economic analysis of the Transaction Marking Pilot and then to build off that economic analysis when discussing Real-Time Short Position Reporting.

²² See *infra* Appendix C: Related Regulations in Certain Foreign Jurisdictions for information on short selling regulation in foreign jurisdictions.

²³ See 17 CFR 242.200.

II. Background

A. Fundamentals of Short Selling

A short sale is the sale of a security that the seller does not own or any sale that is consummated by the delivery of a security borrowed by, or for the account of, the seller.²⁴ Data made public by self-regulatory organizations (“SROs”) indicate that orders marked “short” under current regulations account for approximately 49% of listed equity share volume.²⁵ To deliver the security to the purchaser, the short seller often borrows the security, typically from a broker-dealer or an institutional investor.²⁶ The short seller later closes out the position by purchasing equivalent securities on the open market, or by using an equivalent security it already owns, and returning the security to the lender.²⁷ In general, market participants use short selling to profit from an expected downward price movement, to provide liquidity²⁸ in response to unanticipated demand, or to hedge the risk of an economic long position in the same security or in a related security.²⁹ The risk of short selling, when it is not hedged, is in theory greater than the risk of

²⁴ See Rule 200(a) of Regulation SHO under the Exchange Act, 17 CFR 242.200(a); see also Exchange Act Release No. 50103 (July 28, 2004), 69 FR 48008 (Aug. 6, 2004).

²⁵ The Division arrived at this estimate using short selling volume data for November 2013 made available by SROs. This estimate is consistent with estimates for prior months, and the short percentage varied little from day to day. The underlying data can be found at hyperlinks available at <http://www.sec.gov/answers/shortsalevolume.htm>, and have been provided since August 2009 by the SROs listed therein.

²⁶ See Exchange Act Release No. 50103, 69 FR 48008.

²⁷ *Id.*

²⁸ See LARRY HARRIS, TRADING & EXCHANGES 394-95 (2003); and ZVI BODIE, ALEX KANE & ALAN J. MARCUS, INVESTMENTS 306-07 (2008) (The terms “market liquidity” and “liquidity” refer to the aspect of market quality that enables trades in volume to occur at or near the market price. A liquid security is one in which buyers and sellers can transact in reasonably large sizes with limited impact on price. Market participants provide liquidity when they stand ready to transact at market prices.)

²⁹ Exchange Act Release No. 54891 (Dec. 7, 2006), 71 FR 75068, 75069 (Dec. 13, 2006); Exchange Act Release No. 48709 (Oct. 28, 2003), 68 FR 62972, 62973 (Nov. 6, 2003).

holding unlevered long positions in the sense that long investors cannot lose more than they paid for the security, while short sellers can lose as much as the price of the security can rise.³⁰

While the details of securities lending programs are beyond the scope of this study, securities lending is an integral part of the short selling process. The Division provides a brief overview for context. Broker-dealers and institutional investors often lend securities in connection with short sale transactions as well as to cover and prevent trade fails.³¹ Typically, an institutional investor such as a mutual fund, pension fund, insurance company, or college endowment will lend securities to a broker-dealer, which will relend the securities to a customer for short selling. The short selling customer will typically secure its obligation to return the borrowed security to its broker-dealer lender by posting the short sale proceeds and additional margin with the broker-dealer. The broker-dealer borrower, in turn, secures its obligation to return the borrowed security to the institutional lender by pledging cash or non-cash collateral (though usually cash in the U.S.) in amounts generally ranging between 100% and 105% of the daily market value of the loaned securities.³² Institutional lenders receiving cash collateral typically reinvest it to generate interest income. When the loaned securities are easy to borrow and the collateral is cash, the institutional lender will rebate to the broker-dealer borrower an amount equal to a function of an interest rate.³³ If loaned securities are hard to borrow and the collateral is cash, the broker-dealer borrower may have to pay the institutional lender a rebate amount known as a “negative rebate” rather than the reverse.³⁴ If the collateral is non-cash, and

³⁰ See BODIE, KANE & MARCUS, *supra* note 28.

³¹ See Exchange Act Release No. 50103, 69 FR at 40008.

³² See MARK FAULKNER, AN INTRODUCTION TO SECURITIES LENDING (2004).

³³ See STANDARD & POOR’S, AN INTRODUCTION TO SECURITIES LENDING (September 2009).

³⁴ *Id.*

regardless of whether the securities are easy or hard to borrow, the borrower will pay the lender a loan fee.

B. Short Selling Concerns and Regulation

Short selling is a controversial practice, and one that has long been subject to regulation.³⁵ Some fear that short sellers may often attempt to illegally manipulate stock prices.³⁶ In a “bear raid,” for example, an equity security is sold short in an effort to drive down the price of the security by creating an imbalance of sell-side interest.³⁷ Some blamed bear raids for the 1929 stock market crash and the market's prolonged inability to recover.³⁸ A number of commenters have expressed concern about “short and distort” campaigns and the incentive short positions create to spread unverified and possibly false bad news about a company.³⁹ In “short and distort” strategies, manipulators first short a stock and then engage in a campaign to spread unverified bad news about the stock with the objective of panicking other investors into selling their stock.

³⁵ S. REP. NO. 73-1455, COMMITTEE ON BANKING AND CURRENCY, REPORT ON STOCK EXCHANGE PRACTICES (1934); letter from Professor James J. Angel (Jun. 24, 2011).

³⁶ See generally the Commission's 2010 release adopting the short sale circuit breaker price test, Exchange Act Release No. 61595 (Feb. 26, 2010), 75 FR 11232, 11235-37 (Mar. 10, 2010) (discussing past and present concerns of market participants about manipulative short sale activity). A number of commenters noted concerns with potential trade manipulation, see, e.g., letter from Judith Scott, General Counsel, Portfolio Recovery Associates (Jun. 24, 2011) (“Portfolio Recovery Associates”).

³⁷ See Exchange Act Release No. 48709 (Oct. 28, 2003), 68 FR 62972 (Nov. 6, 2003).

³⁸ See, e.g., Jonathan R. Macey, Mark Mitchell & Jeffrey Netter, *Restrictions on Short Sales: An Analysis of the Uptick Rule and its Role in View of the October 1987 Stock Market Crash*, 74 CORNELL L. REV. 799, 801-802 (1989) (collecting reports of such allegations).

³⁹ See letters from Naphtali M. Hamlet (May 6, 2011); Ronald Cozzard (May 6, 2011); Eugene H. Vance (May 6, 2011); Jan Sargent (May 6, 2011); Lee R. Donais, President and CEO, L.R. Donais Company (May 8, 2011); Joseph A. Scilla (May 9, 2011); Jane M. Reichold (May 17, 2011); John Gensen (May 18, 2011); Victor Y. Wong (May 20, 2011); Kevin Rentzsch (May 24, 2011); Lynn C. Jasper (May 27, 2011); Donald L. Eddy (May 28, 2011); Al S. (Jun. 10, 2011); Jeffrey D. Morgan, President and CEO, National Investor Relations Institute (Jun. 21, 2011) (“NIRI”); Professor James J. Angel; and Dennis Nixon, CEO and Chairman, International Bancshares Corporation (July 18, 2011) (“IBC”).

If successful, the scheme can drive down the price, allowing the manipulators to profit when they “buy-to-cover” their short position at the reduced price.⁴⁰

In 1934, the Senate Banking and Currency Committee noted that “few subjects relating to exchange practices have been characterized by greater differences of opinion than that of short selling.”⁴¹ Rather than abolish the practice, however, Congress granted the Commission plenary power to regulate short sales in listed securities to “purge the markets of the abuses connected with these practices.”⁴² Since that time, the Commission has used this authority to regulate short selling, and has refined its approach over time in light of evolving markets and market events.⁴³

Several specific concerns motivated much of the activity by Congress and the Commission. “Unrestricted short selling can exacerbate a declining market in a security by increasing pressure from the sell-side, eliminating bids [by executing against them], and causing a further reduction in the price of a security by creating an appearance that the security price is falling for fundamental reasons.”⁴⁴ According to a Commission release, market manipulators may unlawfully use short selling to drive down share prices “even where there is no fundamental basis for a price decline other than general market conditions.”⁴⁵ Unduly low prices can give rise to questions about the underlying financial condition of an issuer that the issuer’s true financial condition does not warrant.⁴⁶ This price decline may impact an issuer’s ability to fulfill its outstanding debt obligations, which may be explicitly tied to the share price, and may materially

⁴⁰ See BODIE, KANE & MARCUS, *supra* note 28, at 79-80.

⁴¹ See S. Rep. No. 73-1455, *supra* note 35.

⁴² *Id.*

⁴³ See *infra* Appendix D: Certain Short Sale-Related Regulatory Actions for a timeline of significant short sale-related events.

⁴⁴ Exchange Act Release No. 48709 (Oct. 28, 2003), 68 FR 62972, 62974 (Nov. 6, 2003).

⁴⁵ Exchange Act Release No. 58592 (Sept. 18, 2008), 73 FR 55169 (Sept. 24, 2008).

⁴⁶ See, e.g., Avaniidhar Subrahmanuam & Sheridan Titman, *Feedback from Stock Prices to Cash Flows*, 56(6) J. FIN. 2389-2413 (2001); and Itay Goldstein & Alexander Guembel, *Manipulation and the Allocational Role of Prices*, 75(1) REV. ECON. STUDIES 133-64 (2008).

impact the issuers' ability to raise capital through either equity or debt offerings. Thus, short selling may increase an issuer's cost of capital and raise questions about its viability as a going concern.⁴⁷

During the financial crisis of 2008, the Commission and others were concerned that false rumors may have caused sudden and excessive fluctuations in securities prices that might threaten fair and orderly markets.⁴⁸ At that time, the Commission believed false rumors, perhaps spread by short sellers, that cause market participants to question an issuer's underlying financial condition can cause selling in those securities, which can in turn lead to short-term price distortions in the securities.⁴⁹ In an effort to prevent "substantial disruption" in the securities markets in September 2008, the Commission issued a series of emergency orders related to short selling, including temporarily prohibiting short sales of securities of certain financial firms,⁵⁰ and adopting several immediately effective amendments to Regulation SHO.⁵¹

⁴⁷ See Subrahmanum & Titman, *supra* note 46, at 2404-06. Notably, however, there may be alternative mechanism for would-be short sellers to have a similar or greater impact on a target issuer. In particular, the equity, options, futures, and swaps markets are interconnected, and each of them may be used to effectuate movements in the others. For example, in order to take a financial position adverse to a particular issuer, an investor with a negative view could take a short position in the equity, but it could also take positions in options or equity futures that would increase in value if the stock price declined. Even further, an investor could also buy protection in the credit default swap market, if available, which could increase the borrowing costs of the issuer. Because of the interrelationships of these products to one-another, we note that efforts to require reporting of just one product, without analogous reporting in the other, related products, may not allow the regulators or market participants to have a complete understanding of the "negative" interest in an issuer. See *infra* Section V.C.

⁴⁸ See Exchange Act Release No. 58166 (July 15, 2008), 73 FR 42379 (July 21, 2008); see also *Turmoil in U.S. Credit Markets: Examining the Recent Actions of Federal Financial Regulators: Hearing Before the S. Comm. on Banking, Housing, and Urban Affairs*, 110th Congress (2008) (statement of Alan Schwartz, President and CEO, Bear Stearns). The Division notes that the staff's analysis of data from the Fall 2008 financial crisis did not find evidence that negative returns, on average, were a result of short selling activity. See DANIEL AROMI & CECILIA CAGLIO, SEC OFFICE OF ECON. ANALYSIS, ANALYSIS OF SHORT SELLING ACTIVITY DURING THE FIRST WEEKS OF SEPTEMBER 2008 (Dec. 16, 2008), available at <http://www.sec.gov/comments/s7-08-09/s70809-369.pdf>.

⁴⁹ See Exchange Act Release No. 58166, 73 FR at 42379; Exchange Act Release No. 58592, 73 FR at 55169.

⁵⁰ See Exchange Act Release No. 58592, 73 FR at 55169; Exchange Act Release No. 58611 (Sept. 21, 2008), 73 FR 55556 (Sept. 25, 2008); Exchange Act Release No. 58723 (Oct. 2, 2008), 73 FR 58994 (Oct. 8, 2008).

⁵¹ See Exchange Act Release No. 58775 (Oct. 14, 2008), 73 FR 61690 (Oct. 17, 2008) (eliminating the options market maker exception); Exchange Act Release No. 58774 (Oct. 14, 2008), 73 FR 61666 (Oct. 17, 2008) ("naked" short selling antifraud rule); Exchange Act Release No. 58773 (Oct. 14, 2008), 73 FR 61706 (Oct. 17, 2008) (requiring closeout of fails to deliver on T+4).

The heightened focus on short selling during this period highlighted the lack of timely short selling data available to regulators. As discussed in more detail below,⁵² the Commission required certain institutional investors, for a limited time period, to report their short positions.

Some issuers and retail investors have been particularly vocal in their criticisms of short selling.⁵³ In response to its request for comment on this study, the Commission received dozens of comment letters from retail investors expressing concerns about the activities of short sellers and the consequences of their activities.⁵⁴ Investors have also expressed their concerns about short selling in comments to the Commission on rulemakings,⁵⁵ and in blogs and other postings on the Internet.⁵⁶ Some issuers and their officers also have spoken out against short selling by

⁵² See *infra* note 108 and accompanying text.

⁵³ See, e.g., comments received in response to the Commission's proposed amendments to Regulation SHO, Exchange Act Release No. 59748 (Apr. 10, 2009), 74 FR 10842 (Apr. 20, 2009), Comment File Number S7-08-09, available at <http://sec.gov/comments/s7-08-09/s70809.shtml>.

⁵⁴ See, e.g., letters from Romeo K. Aboo (May 4, 2011); George W. Cobble (May 6, 2011); Laura H. Hearne (May 6, 2011); Mark A. Mac (May 6, 2011); Robert Bourget (May 6, 2011); Tom D. (May 6, 2011); Jack R. McGee (May 6, 2011); Scott E. Wilbur (May 6, 2011); Blaine L. Parker (May 6, 2011); Suzanne H. Shatto (May 6, 2011); Peter E. Meixler (May 7, 2011); Arnold M. Mass (May 9, 2011); Thomas E. Gish (May 30, 2011); Sally P. Edwards (May 10, 2011); Robert Grothe (May 10, 2011); George McLeod (May 10, 2011); V. Saunders (May 10, 2011); Jeff Dickey (May 12, 2011); Casey E. Olney (May 18, 2011); Gary M. Jacob (May 19, 2011); Lord Michael Phillip (May 19, 2011); Bruce Ballaban (May 20, 2011); Nico Roodt (May 28, 2011); Douglas K. Gallagher (May 28, 2011); Tom E. Holliston (May 28, 2011); Raymond E. Williams (May 28, 2011); Simon Dinar (May 31, 2011); James Ballard (Jun. 6, 2011); L.A. Sumn (Jun. 10, 2011); Lawrence F. Glaser (Jun. 14, 2011); Thomas A. Gorka (Jun. 17, 2011); John Schatz (Jun. 18, 2011); Michael Taillefer (Jun. 20, 2011); Michael Equitz (Jul. 15, 2011); Joel H. Gilbert (Jul. 18, 2011); and IBC (Jul. 18, 2011).

⁵⁵ See, e.g., letters submitted in response to Commission's proposing release on the naked short selling anti-fraud rule, cited *supra* note 51, including letters from Arik B. Fetscher (Apr. 2, 2008); Fred Adams, Jr., Chairman and CEO, Cal-Maine Foods (May 19, 2008); David T. Hirschman, President and CEO, Center for Capital Markets Competitiveness, U.S. Chamber of Commerce (May 20, 2008) Wallace E. Boston, Jr., President and CEO, American Public Education (May 20, 2008); Kurt N. Schacht, Executive Director, and Linda L. Rittenhouse, Senior Policy Analyst, CFA Institute Centre for Financial Market Integrity (Jun. 17, 2008); Guillaume Cloutier (July 25, 2008); Shunliang Wang (July 27, 2008); Scott Bridgford (July 29, 2008); and Keith Kottwitz (Aug. 1, 2008), available at <http://www.sec.gov/comments/s7-08-08/s70808.shtml>. The Commission received more than 700 comment letters in response to the proposing release on the naked short selling anti-fraud rule. See also comments submitted in response to the Commission's proposing release on Rule 201, in which the Commission sought comment on adoption of a short sale-related circuit breaker. See Exchange Act Rel. No. 61595 (Feb. 26, 2010), 75 FR 11232 (Mar. 10, 2010). The Commission received more than 4,000 comments in response to the release, many of which expressed general concerns about the impact of short selling on markets. The comments are available at <http://www.sec.gov/comments/s7-08-09/s70809.shtml>.

⁵⁶ See, e.g., <http://investigatethesec.com>.

submitting comment letters to the Commission on proposed short-sale related rulemakings⁵⁷ and supporting websites criticizing short selling.⁵⁸

C. Short Selling's Contribution to Market Quality

Short selling as employed by a variety of market participants can contribute substantially to overall market quality through its positive effects on price efficiency and market liquidity.⁵⁹ As explained in more detail below,⁶⁰ through price efficiency and market liquidity, short selling can also help to promote capital formation. Several commenters noted the role of short selling in uncovering fraud, mitigating price bubbles, and otherwise promoting price efficiency.⁶¹ The Division directs interested readers to Appendix E for a summary of literature supporting the concepts below.

1. Price Efficiency

Price efficiency (also known as market efficiency) refers to how accurately prices reflect available information relevant to the value of the asset.⁶² Put another way, a security price is

⁵⁷ See, e.g., letters from Wallace E. Boston, President and CEO, American Public Education (May 20, 2008) (noting that “[a]s the CEO of a recently public company, I am acutely aware of the impact that abusive short-selling can have on issuers and investors”), submitted in response to the Commission’s Proposing Release on the naked short selling anti-fraud rule, Exchange Act Release No. 57581 (Mar. 17, 2008), 73 FR 15376 (Mar. 21, 2008); and John W. Kozak, CFO, Park National Bank (May 19, 2009)(stating that large changes in short interest in Park National’s stock cause “unnecessary volatility” in its stock price), submitted in response to the Commission’s proposed amendments to Regulation SHO Rule 201 that would generally restrict short selling in a declining market. See Exchange Act Release No. 59748 (Apr. 10, 2009), 74 FR 10842 (Apr. 20, 2009).

⁵⁸ See, e.g., www.deepcapture.com (website initially funded by the CEO of issuer Overstock.com criticizing extended delivery failures related to short selling).

⁵⁹ See FRANK J. FABOZZI, *SHORT SELLING: STRATEGIES, RISKS, AND REWARDS* (2004) for an overview on the various short selling strategies and the impact of short selling on market quality.; see also Menachem Brenner & Marti G. Subrahmanyam, *Short Selling* (Nov. 24, 2008) (white paper), available at http://w4.stern.nyu.edu/salomon/docs/crisis/Short_Selling_white_paper-11-24-08-2.pdf.

⁶⁰ See *infra* Section II.C.3.

⁶¹ See letters from John Smith (pseudonym) (May 5, 2011); Stuart J. Kaswell, Executive Vice President and General Counsel, Managed Funds Association (Jun. 22, 2011) (“MFA”); James Chanos, Chairman, Coalition of Private Investment Companies (June 23, 2011) (“CPIC”); Donal Smith, CEO, Data Explorers (Jun. 23, 2011) (“Data Explorers”); and Kimberly Unger, Executive Director, Security Traders Association of New York (July 5, 2011) (“STANY”).

⁶² See, e.g., Eugene Fama, *Efficient Capital Market II*, 46(5) J. FIN. 1575-1617 (1991).

deemed to be efficient to the extent that it accurately reflects market participants' current collective opinion as to the security's fundamental value.⁶³ In other words, an efficient price would reflect "somewhere between optimistic and pessimistic" investor opinions.⁶⁴ Transaction prices best reflect information when investors who make investment decisions on the basis of estimates of fundamental value ("fundamental investors") can trade without restrictions or costs.⁶⁵ Financial analysts who engage in fundamental research typically analyze and interpret publicly-available company information to determine whether a stock is under- or overvalued.⁶⁶ If a stock is undervalued, these fundamental investors purchase the stock, while if it is overvalued, they sell it. If investors do not own the stock they want to sell, they can sell it short. In this way, fundamental short sellers, such as some mutual funds, hedge funds, and other low frequency proprietary traders, can improve price efficiency.⁶⁷

Other short sellers, such as arbitrageurs and technical analysts, can also help improve price efficiency. Arbitrageurs, such as hedge funds, high frequency traders⁶⁸ ("HFTs"), and other algorithmic traders,⁶⁹ analyze whether the prices of related assets are in line with the economic

⁶³ CLIFFORD ASNESS, *SHORT SELLING: STRATEGIES, RISKS, AND REWARDS* xvi-1 (2004).

⁶⁴ *Id.*

⁶⁵ See Sanford J. Grossman & Joseph E. Stiglitz, *On the Impossibility of Informationally Efficient Markets*, 70(2) AM. ECON. REV. 393-408 (1980).

⁶⁶ BODIE, KANE & MARCUS, *supra* note 28, at 363.

⁶⁷ See, e.g., Joseph Engelberg, Adam V. Reed & Matthew Ringgenberg, *How are Shorts Informed? Short Sellers News, and Information Processing* (U.N.C., Kenan-Flagler Bus. Sch., Working Paper, Nov. 2010), available at <http://public.kenanflagler.unc.edu/faculty/reeda/err.pdf>.

⁶⁸ The Commission noted in the 2010 Concept Release on Equity Market Structure that while the term "high frequency trading" does not have a settled definition, five characteristics tend to indicate high frequency trading behavior. The identified characteristics are (1) the use of extraordinarily high-speed and sophisticated computer programs for generating, routing, and executing orders; (2) use of co-location services and individual data feeds offered by exchanges and others to minimize network and other types of latencies; (3) very short time-frames for establishing and liquidating positions; (4) the submission of numerous orders that are cancelled shortly after submission; and (5) ending the trading day in as close to a flat position as possible (that is, not carrying significant, unhedged positions over-night). See Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594 (Jan. 21, 2010).

⁶⁹ As used in this report, an algorithmic trader is someone who relies on computer programs to decide when, how, and in some cases, whether to trade.

relation between the assets, or have diverged from this relation.⁷⁰ When they diverge, the arbitrageurs buy the relatively undervalued asset and sell the overvalued one, thus promoting price convergence and improving relative price efficiency.⁷¹ In addition, short sellers who conduct technical analysis, such as some hedge funds and HFTs, use trading information and other signals to attempt to predict short term price movements by identifying trading patterns, arguably promoting price efficiency by minimizing pricing anomalies.

2. Market Liquidity

“Market liquidity” and “liquidity” refer to the aspect of market quality that enables trades in volume to occur at or near the market price.⁷² A liquid security is one in which buyers and sellers can transact in reasonably large sizes with limited impact on price. Market participants provide liquidity when they stand ready to transact at market prices.

Short selling promotes market liquidity through several channels – formally through market makers and informally through liquidity-providing short sales by other market participants.⁷³ Market makers rely heavily on short selling to supply liquidity when filling customer orders for securities not held in inventory, enabling them to maintain two-sided quotes

⁷⁰ For example, suppose XYZ owns 80% of ABC. XYZ stock should be priced such that its aggregate market value is at least 80% of the aggregate market value of ABC. If both companies have the same number of shares outstanding and ABC has a price of \$100, then the price of XYZ should be at least \$80. If the price of XYZ is \$60, then XYZ is undervalued relative to ABC.

⁷¹ Following the example *supra* note 70, if XYZ is \$60 and ABC is \$100, an arbitrageur will want to buy XYZ, the relatively undervalued stock, and short ABC, the relatively overvalued stock. Note that arbitrage trading can include any related financial assets, not just stocks.

⁷² See LARRY HARRIS, *supra* note 28, at 394-95; BODIE, KANE & MARCUS, *supra* note 28, at 306-07.

⁷³ A number of commenters noted the role short selling plays in promoting market liquidity. See, e.g., letters from John H. Mathisen (May 5, 2011); MFA; Data Explorers; CPIC; Jennifer S. Choi, Associate General Counsel, Investment Adviser Association (June 23, 2011) (“IAA”); Karrie McMillan, General Counsel, Investment Company Institute, (June 23, 2011) (“ICI”); Jiri Krol, Director, Alternative Investment Management Association (June 23, 2011) (“AIMA”); and Professor James J. Angel. A letter from STANY states that short selling promotes liquidity by reducing bid-ask spreads, noting that “for markets to function most efficiently it is important that they be able to quickly incorporate both positive and negative information into share prices. Such participation has been shown to increase market liquidity and depth, decrease transaction costs (e.g. smaller bid-ask spreads), and provide more efficient price discovery and decreased occurrences of price bubbles/crashes.”

without carrying large positions.⁷⁴ Short selling by market makers helps offset imbalances in the flow of buy and sell orders, when demand would otherwise exceed supply.⁷⁵ In addition, market makers in markets such as equity-based option markets also short sell equity to hedge the risks of carrying inventory in their markets. Other short sellers also can supply liquidity to the markets through less formal mechanisms, such as trading with limit orders, and thus adding to market depth, or by trading in the opposite direction of price moves (*i.e.*, “contrarian strategies”), thus offsetting imbalances between buyers and sellers.⁷⁶ Indeed, as discussed in one staff study, evidence indicates that short sellers supply liquidity more often than long sellers when prices are rising and demand liquidity less often when prices are falling.⁷⁷

3. Capital Formation

Short selling can affect capital formation directly, through its role in public offerings, and indirectly, through its role in improving allocative efficiency.⁷⁸ By promoting price efficiency, short selling improves the allocation of capital to its most productive uses, thus facilitating capital formation.⁷⁹ When a stock is overvalued, the expected return implied by its price is too low, which implies an artificially low cost of capital.⁸⁰ For example, if some stocks are overvalued when short selling is restricted, too much capital is likely to be allocated to

⁷⁴ Discussions with exchanges (Jan. 13, 2011) and equity (Jan. 18, 2011) and options (Jan. 24, 2011) markets makers.

⁷⁵ See, e.g., IRVING M. POLLACK, NATIONAL ASSOCIATION OF SECURITIES DEALERS, INC., SHORT SALE REGULATION OF NASDAQ SECURITIES 12 (1986).

⁷⁶ See Karl B. Diether, Kuan-Hui Lee & Ingrid M. Werner, *Short-sale Strategies and Return Predictability*, 22 REV. FIN. STUDIES 575-607 (2009).

⁷⁷ See AROMI & CAGLIO, *supra* note 48.

⁷⁸ By “allocative efficiency,” the Division refers to the ability of companies to obtain capital to the point where the value to the company of investing the last dollar of capital is equal to the cost of acquiring that last dollar of capital. If a company’s stock is overvalued, the marginal cost of acquiring another unit of capital will be too low and the company may overinvest.

⁷⁹ One can also think of the allocation of capital in the context of investors’ investment decisions. By making better investment decisions, investors are optimally trading off expected risk and return. Better investments offer higher returns for a given level of risk. If investors invest in stocks that do not offer the highest return for a given level of risk, then they are not allocating capital to its most productive uses.

⁸⁰ STEPHEN ROSS, RANDOLPH WESTERFIELD & JEFFREY JAFFE, CORPORATE FINANCE, Ch. 12 (2008).

companies with the overvalued stocks. If other companies' stock is fairly valued or even undervalued, too little capital is likely to be allocated to these companies.⁸¹ The result is that overvalued companies may fund less profitable or, worse, unprofitable projects, while profitable projects could go unfunded in companies whose stock is fairly valued or undervalued.⁸² In addition, more liquid markets also promote capital formation because investors prefer to invest capital in markets where establishing and liquidating positions can be done quickly and at low cost.⁸³

Short selling is prevalent in the immediate aftermarket of IPOs,⁸⁴ likely because participants in offerings make use of short selling to hedge and otherwise manage their risk; therefore, one can say that short selling promotes capital formation. The Division understands that market participants use short sales to hedge risky positions.⁸⁵ Market participants with hedged positions are willing to accept lower expected returns, which reduces the cost of capital for issuers.⁸⁶ For example, purchasers of convertible bond offerings can manage their risk by shorting the underlying stock.⁸⁷ Reducing the cost of capital for issuers promotes capital formation. In discussions with the Division, issuers also explained how short sellers participate

⁸¹ See, e.g., John Lintner, *The Aggregation of Investor's Diverse Judgments and Preferences in Purely Competitive Security Markets*, 3 J. FIN. & QUANTITATIVE ANALYSIS 347-400 (1969); Edward Miller, *Risk, Uncertainty, and Divergence of Opinion*, 32(4) J. FIN. 1151-1168 (1977); José A. Scheinkman & Wei Xiong, *Overconfidence and Speculative Bubbles*, 111(6) J. POL. ECON. 1183-1219 (Dec. 2003).

⁸² See Jeffrey Wurgler, *Financial Markets and the Allocation of Capital*, 58 J. FIN. ECON. 187-214 (2000); Qi Chen, Itay Goldstein & Wei Jiang, *Price Informativeness and Investment Sensitivity to Stock Price*, 20(3) REV. FIN. STUDIES 619-650 (2007).

⁸³ See, e.g., Yakov Amihud & Haim Mendelson, *Asset Pricing and the Bid-Ask Spread*, 17(2) J. FIN. ECON. 223-249 (1986); Douglas Diamond & Robert Verrecchia, *Disclosure, Liquidity, and the Cost of Capital*, 46(4) J. FIN. 1325-1355 (1991).

⁸⁴ Amy K. Edwards & Kathleen Weiss Hanley, *Short Selling in Initial Public Offerings*, 98 J. FIN. ECON. 21-39 (2010). Edwards currently serves as a Commission staff member in the Division.

⁸⁵ See letters from SIFMA; MFA; CPIC; FIF; IAA; ICI; Data Explorers; AIMA; and STANY.

⁸⁶ See, e.g., Stephen J. Brown, Bruce D. Grundy, Craig M. Lewis & Patrick Verwijmeren, *Convertibles and Hedge Funds as Distributors of Equity Exposure*, 25 (10) REV. FIN. STUD. 3077-3112 (Oct. 2012).

⁸⁷ *Id.*

directly in capital formation because the covering of their short positions makes them natural purchasers of stock in follow-on offerings, subject to applicable law.⁸⁸

4. Significance of Short Selling

The potential benefits of short selling noted above⁸⁹ are not trivial, given the prevalence of short selling as a proportion of all sales. Using 2005 data, academic studies have found short selling as a proportion of volume ranges from 20% to 35%⁹⁰ while more recent data analysis by Division staff has found short selling at nearly 50% of volume.⁹¹ Figure F.1 in Appendix F shows that the level of short selling as a percentage of trading volume has been growing over the last five years. According to a study published by Commission staff, short selling is even high early in the life of a stock, starting at 7% of the offered shares, on average, on the first day an IPO trades.⁹² Despite the recent increase in short selling as a percentage of volume, Figure F.2 in Appendix F shows that short interest appears to have been fairly steady since the end of 2008. The combination of these results suggests that positions that are closed within the trading day drive the increase in short selling. Specifically, market makers and HFTs typically establish and close short positions within the day. To put these numbers in perspective, only a fraction of shares outstanding trade in a given day, so the short interest is typically much higher than daily

⁸⁸ Discussion with issuers and issuers' representatives (Feb. 11-15, 2011). Rule 105 of Regulation M prohibits those who short in the days preceding certain offerings from participating in the offering, with limited exceptions. See 17 CFR 242.105.

⁸⁹ See *supra* Sections II.C.1 – II.C.3.

⁹⁰ See, e.g., Diether, Lee & Werner, *supra* note 76; SEC OFFICE OF ECONOMIC ANALYSIS, ECONOMIC ANALYSIS OF THE SHORT SALE PRICE RESTRICTIONS UNDER THE REGULATION SHO PILOT (Feb. 6, 2007), available at <http://www.sec.gov/news/studies/2007/regshopilot020607.pdf>

⁹¹ See *supra* note 25.

⁹² See Edwards & Hanley, *supra* note 84.

short selling volume. In November 2013, the short interest was an average of 8.13 times the daily short selling volume.⁹³

Short selling utilizes the securities lending market, which has a large supply of shares available for loan. Figure F.3 shows that while the value on loan has recently reached \$½ trillion, between 5% and 12% of shares available for stock loans are on loan at any point in time.⁹⁴

According to an academic paper, only 9% of stocks in its sample had a limited supply of shares on the securities lending market, as identified by high lending fees.⁹⁵

III. Short Sale Disclosure

A considerable amount of short sale data is currently available to investors, issuers, regulators, and other market participants on both a free and paid basis.⁹⁶ Division staff assessed the feasibility of the disclosure regimes specified in Section 417(b)(2) as well as the benefits and costs of the data that would be provided under them against the baseline of both the short position and transaction data currently available to regulators and the investing public as well as the data that would be available to regulators if the Commission approves a CAT NMS Plan⁹⁷ and from other recently adopted rules. In addition, the Division examined short sale position and transaction disclosure regimes in foreign jurisdictions to help assess the specified regimes and inform possible approaches to key definitions and policy choices for the purposes of this study.

⁹³ Short interest is published by listing exchanges, *see supra* note 99 and accompanying text. Short sale volume is published by the SROs. *See supra* note 116 and accompanying text.

⁹⁴ *See infra* Figure F.3, showing the value of shares actually loaned by quarter and the percentage of available shares on loan for the 1999-2013 period. *See* the Risk Management Association web site, <http://www.rmahq.org/securities-lending/quarterly-aggregate-composite>, for more information.

⁹⁵ Gene D'Avolio, *The Market for Borrowing Stock*, 66 J. FIN. ECON.271-306 (2002).

⁹⁶ *See* letters from Ira D. Hammerman, Senior Managing Director and General Counsel, SIFMA (Jun. 23, 2011); CPIC. Many of these data sets can be found at hyperlinks available at <http://www.sec.gov/answers/shortsalevolume.htm>.

⁹⁷ *See supra* note 3.

A. Currently and Previously Available Data

1. Bi-Monthly Short Interest

Short interest reporting is a form of aggregated position reporting. FINRA collects short interest in individual securities⁹⁸ and the exchanges that list stocks publish the data twice a month.⁹⁹ FINRA computes short interest using information it receives from its broker-dealer members pursuant to FINRA Rule 4560 reflecting all trades cleared through clearing broker-dealers.¹⁰⁰ FINRA Rule 4560 requires generally that broker-dealers that are FINRA members report “short positions” in customer and proprietary firm accounts in all equity securities twice a month through FINRA’s web-based Regulation Filing Applications (RFA) system.¹⁰¹ FINRA defines “short positions” for this purpose simply as those resulting from “short sales” as defined in Rule 200(a) of Regulation SHO under the Exchange Act.¹⁰² Member firms must report their short positions to FINRA regardless of position size.¹⁰³ In a process that takes approximately eleven days after the settlement date used for calculations, or two weeks after the last trading

⁹⁸ See FINRA Rule 4560; NASD Notice to Members 07-24 (May 2007). The reporting requirement was initially adopted in 1985 by the NASD (now known as FINRA) to collect information for a study it was conducting on short sale activity in the over-the-counter market to assess the possible need for additional regulation of short sale practices. See Exchange Act Release No. 22731 (Dec. 19, 1985), 51 FR 462 (Jan. 6, 1986).

⁹⁹ See, e.g., <http://www.nyxdata.com/Data-Products/NYSE-Group-Short-Interest>; <http://www.nasdaq.com/quotes/short-interest.aspx>. Neither FINRA nor BATS, however, publish the short interest data for securities listed on BATS.

¹⁰⁰ Short interest for a listed security at any date reported by FINRA is the aggregate of the short positions of all clearing brokers in that security on that date. Discussion with SROs (Jan. 13, 2011).

¹⁰¹ FINRA Rule 4560 excludes short sales in “restricted equity securities,” as defined in Securities Act Rule 144, from the reporting requirement.

¹⁰² See FINRA Rule 4560(b)(1).

¹⁰³ See FINRA Market Regulation Department, *General Instructions for Short Interest Reporting to FINRA Member Firms* (Dec. 18, 2008) available at <http://www.finra.org/Industry/Compliance/RegulatoryFilings/ShortInterestReporting/P037072>.

date for the captured short positions,¹⁰⁴ FINRA validates and aggregates the information by security and, along with NYSE and NASDAQ, releases it to the public.¹⁰⁵

Investors and issuers appear to be aware of short interest data, which is available from data vendors, exchanges, and even on web sites such as financial information websites.¹⁰⁶ Issuers report that they monitor short interest data in their stock to gauge investor sentiment, generally obtaining the data from the exchanges more so than from data vendors.¹⁰⁷

2. Exchange Act Rule 10a3-T and Exchange Act Form SH

For a ten-month period in 2008 and 2009, the Commission required certain institutional investment managers to submit confidential weekly reports of their short positions in Section 13(f) securities, other than options, on Exchange Act Form SH.¹⁰⁸ *De minimis* short positions of less than 0.25% of the class of shares with a fair market value of less than \$1 million were not required to be reported.¹⁰⁹ The investment manager was required to report short positions to the Commission on Form SH on a nonpublic basis on the last business day of each calendar week immediately following any calendar week in which it effected short sales,¹¹⁰ a more frequent disclosure interval than the quarterly public reporting of long positions required on Exchange

¹⁰⁴ See 2011 Short Interest Reporting Due Dates at <http://www.finra.org/Industry/Compliance/RegulatoryFilings/P117123>.

¹⁰⁵ See *supra* note 99 and accompanying text.

¹⁰⁶ Discussions with long investors and retail investors (Jan. 31, 2011) and data vendors (Feb. 4, 2011).

¹⁰⁷ See letter from NIRI. Data vendors likewise report little demand for short sale data products designed specifically for issuers.

¹⁰⁸ With respect to each applicable section 13(f) security, the Form SH filing was required to identify the issuer and CUSIP number of the relevant security and reflect the manager's start of day short position, the number and value of securities sold short during the day, the end of day short position, the largest intraday short position, and the time of the largest intraday short position. The reporting requirement was implemented via a series of emergency orders followed by an interim final temporary rule, Rule 10a3-T. Exchange Act Release No. 58591 (Sept. 18, 2008), 73 FR 55175 (Sept. 24, 2008); Exchange Act Release No. 58591A (Sept. 21, 2008), 73 FR 58987 (Sept. 25, 2008); Exchange Act Release No. 58724 (Oct. 2, 2008), 73 FR 58987 (Oct. 8, 2008); Exchange Act Release No. 58785 (Oct. 15, 2008), 73 FR 61678 (Oct. 17, 2008).

¹⁰⁹ See Exchange Act Release No. 58591, 73 FR at 55175.

¹¹⁰ See Exchange Act Release No. 58785, 73 FR at 61678.

Act Form 13F.¹¹¹

Following the financial crisis and the expiration of Rule 10a3-T on August 1, 2009, the Commission and certain SROs thereafter commenced several initiatives to increase the public availability of short sale-related information,¹¹² with a view to improving the information available to regulators, investors, analysts, academics, and the public.¹¹³ These post-crisis initiatives, which remain in effect, include publication of data regarding fails to deliver by the Commission on its website on a half-month delay¹¹⁴ and the publication by SROs of two data sets on short selling activity, which are discussed below.¹¹⁵

3. Short Selling Volume and Transactions

Since 2009, many SROs have been publishing two short selling data sets, including same day publication of daily aggregated short sale volume in individual securities¹¹⁶ and publication of short sale transaction information on no more than a two-month delay.¹¹⁷ Market participants, including issuers and investors, do not appear to widely monitor or use this data, and data

¹¹¹ *Id.*

¹¹² See Press Release, Sec. & Exch. Comm'n (July 27, 2009), available at <http://www.sec.gov/news/press/2009/2009-172.htm>.

¹¹³ *Id.*

¹¹⁴ The fails to deliver data is daily aggregate data provided twice per month for all equity securities, regardless of the fails level, at the following link: <http://www.sec.gov/foia/docs/failsdata.htm>.

¹¹⁵ See *infra* Section III.A.3.

¹¹⁶ For hyperlinks to the websites where SROs publish this data, see

<http://www.sec.gov/answers/shortsalevolume.htm>, *supra* note 25. See, e.g., FINRA's Daily Short Sale Volume Files, which provide aggregated volume by security on all short sale trades executed and reported to a FINRA reporting facility during normal market hours. See *FINRA Information Notice, Publication of Daily and Monthly Short Sale Reports on the FINRA Web Site* (Sept. 29, 2009), available at <http://www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p120044.pdf>.

¹¹⁷ See, e.g., FINRA's Monthly Short Sale Transaction Files, which provide detailed trade activity of all short sale trades reported to a consolidated tape. See *FINRA Information Notice, Publication of Daily and Monthly Short Sale Reports on the FINRA Web Site*, *supra* note 116. Links to all SRO data are collected at <http://www.sec.gov/answers/shortsalevolume.htm>. Additional transaction data has been available at various times, including transaction data from the Regulation SHO Pilot, which was discontinued by most exchanges in July 2007 when the uptick rule was removed (See Exchange Act Release No. 55970 (Jun. 28, 2007), 72 FR 36348 (July 3, 2007), available at <http://www.sec.gov/rules/final/2007/34-55970.pdf>). The Pilot data comprised short selling records available from each of nine markets: American Stock Exchange, Archipelago Exchange, Boston Stock Exchange, Chicago Stock Exchange, NASD, Nasdaq Stock Market, New York Stock Exchange, National Stock Exchange, and the Philadelphia Stock Exchange. See SEC Division of Trading and Markets, Reg SHO Pilot Data FAQ, available at <http://www.sec.gov/spotlight/shopilot.htm#pilotfaq>.

vendors informed the Division that they had not created products utilizing this data.¹¹⁸ The Division is unaware of the transaction-level data being widely used by any group other than academics.

These data sets are compiled using information contained in marks for orders that execute and information from FINRA's Trade Reporting Facility ("TRF") and Alternative Display Facility ("ADF")¹¹⁹ (the TRF and ADF are together referred to herein as "FINRA's Reporting Facilities"). Rule 3b-16(c) of the Exchange Act defines an order as a "firm indication of a willingness to buy or sell a security."¹²⁰ A transaction sometimes consists of the execution of an order to buy combined with a corresponding order to sell. A transaction can also consist of multiple buy or sell orders.¹²¹ A market maker can be the buyer or seller when there are no public buy or sell orders available to trade with an order at a particular price, resulting in an execution without an order (on the market maker's side).¹²²

Existing regimes for short sale order marking and trade reporting provide an infrastructure that may facilitate Transaction Marking. The TRF, ADF, Rule 200(g) of Regulation SHO under the Exchange Act¹²³, and FINRA's Order Audit Trail System ("OATS")¹²⁴ all currently provide for order marking and trade reporting, although these marks do not include

¹¹⁸ Discussions with SROs (Jan. 13, 2011) and data vendors (Feb. 4, 2011).

¹¹⁹ Each TRF provides FINRA members with a mechanism for the public reporting of transactions effected otherwise than on an exchange. *See* FINRA, Market Transparency, Trade Reporting Facility, available at <http://www.finra.org/Industry/Compliance/MarketTransparency/TRF/>. The ADF is an SRO display only facility that is operated by FINRA. It provides members with a facility for the public display of quotations, the reporting of trades, and the comparison of trades. *See* FINRA, Market Transparency, Alternative Display Facility, available at <http://www.finra.org/Industry/Compliance/MarketTransparency/ADF/>.

¹²⁰ Exchange Act Release No. 40760, 63 FR at 70918.

¹²¹ For example, a 500 share transaction could be the execution of one 500 share buy order, a 200 share sell order, and a 300 share sell order.

¹²² For example, a 500 share transaction could be the execution of one 500 share buy order against a market maker selling.

¹²³ 17 CFR 242.200(g).

¹²⁴ *See* FINRA Rules 7410 – 7470; *see also* "Order Audit Trail System (OATS™)" at <http://www.finra.org/Industry/Compliance/MarketTransparency/OATS/>.[.http://www.finra.org/Industry/Compliance/MarketTransparency/OATS/](http://www.finra.org/Industry/Compliance/MarketTransparency/OATS/).

the “market maker short” and “buy-to-cover” marks specified in Section 417(a)(2)(B) of the Dodd-Frank Act.

Rule 200(g) of Regulation SHO requires that orders to sell be marked “long,” “short,” or “short exempt.”¹²⁵ Under Regulation SHO, a sell order may be marked “long” only if the seller is deemed to own the security being sold¹²⁶ and the security either is in the physical possession or control of the broker-dealer, or it is reasonably expected that the security will be in the physical possession or control of the broker or dealer no later than settlement date.¹²⁷ A short sale order may be marked “short exempt” only under specified circumstances.¹²⁸ OATS rules impose obligations on FINRA members to record the designation of orders they transmit or execute as “buy” or “sell” and “short” or “short exempt.”¹²⁹ FINRA’s Reporting Facilities’ rules require that firms report transactions consistent with the marking of the order for purposes of Regulation SHO.¹³⁰ The FINRA designations for “short” or “short exempt” generally follows the requirements of Regulation SHO.¹³¹

One of the purposes of these order marks is regulatory; they are used to monitor compliance with other requirements applicable to short sales under Regulation SHO,¹³² including

¹²⁵ See 17 CFR 242.200(g).

¹²⁶ Rule 200(a)-(f) of Regulation SHO specifies when a seller is “deemed to own” a security. See 17 CFR 242.200(a)-(f).

¹²⁷ See 17 CFR 242.200(g).

¹²⁸ Specifically, a short sale order may be marked “short exempt” only if the provisions of Rule 201(c) or (d) are met. See 17 CFR 242.200(g)(2). Rule 201(c) and (d) set forth specific circumstances where a short sale order may be marked “short exempt” such that it may be executed or displayed by a trading center without regard to the price test restriction of Rule 201. See 17 CFR 242.201(b)(1)(iii)(B), 242.201(c), and 242.201(d).

¹²⁹ See FINRA Rule 7440.

¹³⁰ See FINRA Regulatory Notice 10-48, *Amendments to FINRA Trade Reporting and OATS Rules to Reinstitute Short Sale Exempt Marking and to Require Price and Short Exempt Identifier on Route Reports* (Oct. 2010).

¹³¹ See *id.*

¹³² See Exchange Act Release No. 50103, 69 FR at 48012; Exchange Act Release No. 61595 (Feb. 26, 2010), 75 FR 11232, 11275-11276 (Mar. 10, 2010); SEC Division of Markets: Market Regulation, Responses to Frequently Asked Questions Concerning Regulation SHO (“Regulation SHO FAQ”), Q&A 2.2, available at <http://www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm>.

the “locate,”¹³³ “close-out,”¹³⁴ and circuit-breaker price test¹³⁵ requirements. However, marking short sales can be fairly complex.¹³⁶ When short order marks are analyzed for the purpose of calculating the number or volume of short sales, overestimation may result because the above-mentioned rules¹³⁷ and related Commission staff guidance¹³⁸ currently encourage erring on the side of marking short. Therefore, the volume and transaction data that became available post-crisis, which derive, in part, from these order marks, may overestimate the volume of transactions that represent sellers establishing or increasing a short position.

4. Securities Lending

Securities lending data provides information on stock loan volume, lending costs, and the percentage of available stock out on loan, which some market commentators have used as

¹³³ See 17 CFR 242.203(b)(1).

¹³⁴ See 17 CFR 242.203(b)(3) and 242.204.

¹³⁵ See 17 CFR 242.201.

¹³⁶ See, e.g., Regulation SHO FAQ, *supra* note 132, Q&As 2.1 – 2.5 (addressing frequently asked questions regarding order marking), available at <http://www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm>.

¹³⁷ See, e.g., Exchange Act Release No. 50103, 69 FR at 48012. As noted *supra* in notes 126-127 and accompanying text, to mark a sell order “long”, the selling party must (i) be “deemed to own” the security being sold to avoid the definition of “short sale” in Rule 200(a), and (ii) satisfy the specific requirements relating to possession or control laid out in Rule 200(g). Rule 200(a)-(f) of Regulation SHO specifies a limited range of instances where a party may actually be “deemed to own” the security being sold, and this limited range therefore makes it more difficult to determine that a sale does not fall within the definition of “short sale” set forth in Rule 200(a). Also, there may be instances where a seller can be “deemed to own” the security being sold but physical possession or control of the security, or a reasonable expectation thereof in time for settlement, is not present. Restricted securities under Rule 144 of the Exchange Act are a common example in that a seller is “deemed to own” such securities under Rule 200(a), but because of the Rule 144 transfer restrictions the seller cannot meet the possession or control requirements of Rule 200(g). The sale of a Rule 144 restricted security is therefore required to be marked “short” even though the “deemed to own” test has been satisfied and the sale does not otherwise fall under Rule 200(a)’s definition of a short sale. See Exchange Act Release No. 50103, 69 FR at 48012; see also letters from AIMA and SIFMA.

¹³⁸ In particular, some sales may be executed when the seller has a net long position even though the sell order was marked short. See, e.g., Regulation SHO FAQ, *supra* note 132, Q&A2.5, which addresses order marking where an investor is net long 1,000 shares and simultaneously enters multiple orders to sell 1,000 shares owned. FAQ 2.5 advises that only one of these orders can be marked as a long sale; the rest must be marked short. In this situation, one of the orders marked short might execute first and the remaining pending sell orders, including the long order might be canceled such that the resulting transaction would be recorded as a short sale, even though it was actually long and did not result in a short position.

measures of short selling.¹³⁹ The securities lending industry appears to use securities lending data widely, though it is generally available only by subscription.

Securities lending may be correlated with short selling but is not a perfect measure of short selling. Securities lending may be used for purposes other than short sales such as to cover trade fails, short selling that is covered within the trading day does not require any loans, and vendors that sell lending data do not have complete information, including less than 100% of the negotiated loans and no information on borrowing from margin accounts.¹⁴⁰

B. Potentially Forthcoming Short Sale Data

The Division considered whether the baseline should include other data that may be available in the future.¹⁴¹ On July 27, 2011, the Commission adopted Exchange Act Rule 13h-1 (“Large Trader”)¹⁴² and on July 18, 2012, the Commission adopted Exchange Act Rule 613 (“CAT Rule”).¹⁴³ As discussed further below, these rules may change short selling information available to regulators. In addition, Sections 929X(a)¹⁴⁴ and 984(b)¹⁴⁵ of the Dodd-Frank Act also address issues related to short selling and could at some point impact the available information related to short selling.

¹³⁹ Several commercial entities sell data on securities lending to clients. *See, e.g.*, letter from Data Explorers. As some commenters have noted, stock lending facilitates short selling (*see, e.g.*, Speech by Chester Spatt, former Chief Economist of the SEC, available at <http://www.sec.gov/news/speech/2007/spch042007css.htm>). The information sold by vendors may include volume of loans, lending costs, and the percentage of available stock out on loan. This data offers indirect evidence of short selling, and some research has used stock lending data as a proxy for actual short sales. *See, e.g.*, Oliver Wyman, Alternative Investment Management Association, *The Effects of Short Selling Public Disclosure of Individual Positions on Equity Markets* (Feb. 2011), available at <https://www.managedfunds.org/industry-resources/industry-research/the-effects-of-short-selling-public-disclosure-of-individual-positions-on-equity-markets/>.

¹⁴⁰ Discussion with data vendors (Feb. 4, 2011).

¹⁴¹ A number of commenters noted the importance of considering the benefits and costs of the contemplated regimes in Section 417 alongside other potential initiatives. *See* letters from IAA; SIFMA; FIF; and STANY.

¹⁴² *See* Exchange Act Release No. 64976 (Jul. 27, 2011), 76 FR 46960 (Aug. 3, 2011).

¹⁴³ *See supra* note 97.

¹⁴⁴ Codified as amended at 15 U.S.C. 78m(f)(2) (2012).

¹⁴⁵ Codified as amended at 15 U.S.C. 78j (2012).

1. Consolidated Audit Trail (CAT)

Under the CAT Rule and various Commission orders, SROs must submit an NMS Plan to create, implement, and maintain a consolidated audit trail of order information on or before September 30, 2014.¹⁴⁶ If the Commission approves the NMS Plan submitted by the SROs, the CAT will allow the Commission and the SROs to have access to information on all orders to trade NMS securities.¹⁴⁷ In particular, if the NMS Plan is approved, the CAT data will include information on the short sale order marks, the customer identity, and an open/close indicator.¹⁴⁸ Rule 613 requires that the NMS plan provide that such information be reported by broker-dealers and exchanges no later than 8:00am on the trading day following the day such information was recorded.¹⁴⁹ With access to this information, the Commission and the SROs may be able to run processes when needed to track short selling and buy-to-cover activity and to identify the activity of large short sellers.¹⁵⁰ While improving regulators' access to short selling information, the CAT might not improve access to short selling information for non-regulators.¹⁵¹

¹⁴⁶ See Rule 613(a). The due date for filing of the NMS Plan, initially April 28, 2013, was extended by the Commission pursuant to requests by the SROs to September 30, 2014. See Exchange Act Release No. 71018 (Dec. 6, 2013), 78 FR 75669 (Dec. 12, 2013). Under Rule 613(a)(1), the SROs were required to file the NMS Plan no later than 270 days from the date of publication of the Rule 613 Adopting Release in the Federal Register. The Rule 613 Adopting Release was published in the Federal Register on August 1, 2012. See Exchange Act Release No. 67457 (Jul. 18, 2012), 77 FR 45722 (Aug. 1, 2012). Thus, the NMS plan was originally due no later than April 28, 2013. On March 7, 2013, the Commission granted a request from the SROs for an extension of this deadline until December 6, 2013. See Exchange Act Release No. 69060 (Mar. 7, 2013), 78 FR 15771 (Mar. 12, 2013). On November 8, 2013, the SROs filed an application for further extension of the deadline to September 30, 2014, which was granted by the Commission on December 6, 2013. See 78 FR at 75669.

¹⁴⁷ See Rule 613(e)(2), which provides for regulatory access to CAT.

¹⁴⁸ See Rule 613(c)(7)(i)(A) and (F) and Rule 613(j)(7), which require reporting of a customer identifier and material terms of the order, including whether a sell order is a short sale and an open/close indicator in CAT. The Division expects that the open/close indicator will provide information on whether the transaction is to open or close a position. Consequently, an order to buy that is closing a position would be a buy-to-cover.

¹⁴⁹ See Rule 613(c)(3). Rule 613(c)(3) requires the CAT NMS Plan to provide that certain key data must be recorded contemporaneously with the reportable event (*i.e.*, origination or receipt, modification, cancellation, routing, execution, and receipt of a routed order) and reported by 8:00 a.m. Eastern Time on the following trading day.

¹⁵⁰ See Exchange Act Release No. 67457, 77 FR at 45730; see also Exchange Act Release No. 62174 (May 26, 2010), 75 FR 32556, 32575 (June 8, 2010) (“an open/close indicator could be used to indicate when a buy order in a stock is a buy to cover on a short sale.”) Rule 613 does not require the CAT NMS Plan to provide that orders be

2. Large Trader Rule

The Large Trader Rule requires those who meet the definition of “large traders” to register with the Commission to get a large trader identification number and comply with the requirements of Rule 13h-1.¹⁵² This number will allow the activities of large traders to be aggregated across multiple broker-dealers and will provide the Commission with a faster way to acquire information about the activities of large traders, including their short selling, than exists today. The Large Trader Rule will not make any new data public.¹⁵³ The Rule became effective on October 3, 2011. The compliance date for large traders to identify themselves to the Commission pursuant to Rule 13h-1(b) was December 1, 2011. The compliance date for broker-dealers to maintain records, report, and monitor large trader activity was November 1, 2013, although certain broker-dealers have been exempted from compliance until November 1, 2015.¹⁵⁴

3. Other Potentially Available Data

Potential future sources of data include data resulting from implementation of regulations required under Sections 929X(a) and 984(b) of the Dodd-Frank Act.¹⁵⁵ Section 984(b) of the Dodd-Frank Act provides that “not later than 2 years after the date of enactment of this Act, the Commission shall promulgate rules that are designed to increase the transparency of information

directly marked as a buy-to-cover, but it does require the CAT NMS Plan to provide for an open/close indicator that would indicate whether a buy order is closing a position.

¹⁵¹ See Exchange Act Release No. 67457, 77 FR at 45780-45781 (“The Commission requested comment [in the proposal] on whether it should allow the consolidated audit trail data to be made available to third parties, such as for academic research... However, because the creation and implementation of the consolidated audit trail is in the formative stage, and in light of commenters’ concerns about the privacy and security of the information, the Commission believes it is premature to require that the NMS plan require the provision of data to third parties.”)

¹⁵² See *supra* note 142 and accompanying text.

¹⁵³ *Id.*

¹⁵⁴ See Exchange Act Release No. 70150 (Aug. 8, 2013), 78 FR 49556 (Aug. 14, 2013). The Commission extended the compliance date to November 1, 2015 for broker-dealers that are not (1) clearing broker-dealers for large traders, with respect to (a) proprietary transactions by a large trader broker-dealer, (b) transactions effected pursuant to a “sponsored access arrangement,” and (c) transactions effected pursuant to a “direct market access arrangement;” and (2) broker-dealers that carry an account for a large trader, with respect to transactions other than those set forth above, and for transaction data other than the execution time.

¹⁵⁵ Pub. L. No. 111-203 (July 21, 2010).

available to brokers, dealers, and investors, with respect to the loan or borrowing of securities.”¹⁵⁶ Section 929X(a) of the Dodd-Frank Act provides that “[t]he Commission shall prescribe rules providing for the public disclosure of the name of the issuer and the title, class, CUSIP number, aggregate amount of the number of short sales of each security, and any additional information determined by the Commission following the end of the reporting period. At a minimum, such public disclosure shall occur every month.”¹⁵⁷ The Commission has not yet taken action pursuant to these provisions. The analysis, therefore, does not include these potential data in the baseline against which to compare the benefits and costs that are described in this study.

C. Foreign Short Sale Data

Several foreign jurisdictions recently adopted, or are considering adopting, short position reporting regimes.¹⁵⁸ These existing and proposed regimes are instructive because they embody a variety of available policy choices, including reporting thresholds, disclosure frequencies and deadlines, and whether positions are for public or private dissemination.¹⁵⁹

Commenters recognized the relevance of these regimes in general,¹⁶⁰ with some commenters preferring certain foreign regulatory approaches to short selling over others.¹⁶¹ Some commenters advocated a consistent international approach for the sake of efficiency,¹⁶² while

¹⁵⁶ Codified as amended at 15 U.S.C. 78j (2012).

¹⁵⁷ See Pub. L. No. 111-203, Section 929X(a), codified as amended at 15 U.S.C. 78m(f)(2).

¹⁵⁸ See *infra* Appendix C: Related Regulations in Certain Foreign Jurisdictions for a comparison of the disclosure regimes of selected major jurisdictions.

¹⁵⁹ At least one foreign jurisdiction temporarily banned all short selling. The Greek ban on shorting non-bank stock began in August 2011 and continued through January 2013. See Press Release, Hellenic Republic Capital Market Commission (Jan. 28, 2013), available at http://www.hcmc.gr/photos/kefalaiagora/files/Short%20Selling%20Prohibition_28%201%202013.pdf.

¹⁶⁰ See letter from Professor James J. Angel.

¹⁶¹ See letter from CPIC.

¹⁶² See letters from ICI; and AIMA.

others cautioned against drawing conclusions from rules that apply only to a narrow range of stocks for a limited period of time.¹⁶³

Some foreign jurisdictions have reporting thresholds. Australia requires reporting short positions exceeding \$100,000 and 0.01% of the share class.¹⁶⁴ Japan requires reporting of short positions exceeding 0.20% of stock issued and outstanding.¹⁶⁵ In 2012, the European Parliament and the Council of the European Union adopted regulations on short selling (the “SSR”) that standardized the reporting threshold for all E.U. member states.¹⁶⁶ Under the SSR, the trading entity reports to the regulator when their short position reaches the initial threshold of 0.2% of the share capital of the company, and in 0.1% up and down increments thereafter.¹⁶⁷

In Australia, the E.U., Japan, and Hong Kong, reported positions are subject to public disclosure (either in individual form or aggregated).¹⁶⁸ In several jurisdictions the public disclosure is subject to a separate ownership threshold that is higher than the threshold for disclosure to the regulator.¹⁶⁹ For example, in the E.U. short sellers must report positions of 0.2% and above to regulators,¹⁷⁰ but must report short positions to the public only when their short

¹⁶³ See letter from MFA.

¹⁶⁴ See Australian Securities and Investment Commission, Regulatory Guide 196, RG 196.127 (Apr. 2011).

¹⁶⁵ See Financial Services Agency (Japan), *Publication of a Draft Comprehensive Review of the Short Selling Regulation* (April 1, 2013) (“FSA Japan Proposed Short Sale Disclosure”), available at <http://www.fsa.go.jp/en/news/2013/20130401-1.html>; Financial Services Agency (Japan); *FSA Extends Temporary Measures to Restrict Short Selling and Facilitate Share Repurchase by Publicly Listed Companies* (April 23, 2013) (“FSA Japan Short Sale Disclosure Threshold”), available at <http://www.fsa.go.jp/en/news/2013/20130423.html>.

¹⁶⁶ See European Parliament and the Council of the European Union, Regulation No. 236/2012 (Mar. 24, 2012), available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:086:0001:0024:en:PDF>. The SSR was adopted by the European Parliament and the Council of the European Union on March 14, 2012 and became effective on Nov. 1, 2012.

¹⁶⁷ *Id.*, Article 5(2).

¹⁶⁸ See Regulatory Guide 196 (Australia), *supra* note 164, RG 196.143; EU Regulation No. 236/2012, *supra* note 166, at Article 6(2); FSA Japan Proposed Short Sale Disclosure and FSA Japan Short Sale Disclosure Threshold, *supra* note 165, at 1; Hong Kong Securities and Futures Ordinance, Ch. 571AJ, Securities and Futures (Short Position Reporting) Rules (effective June 18, 2012), available at <http://www.legislation.gov.hk/eng/home.htm>.

¹⁶⁹ See *infra* Appendix C: Related Regulations in Certain Foreign Jurisdictions for a summary of reporting requirements.

¹⁷⁰ E.U. Regulation No. 236/2012, *supra* note 160, Article 5(2).

position reaches the threshold of 0.5%, and in 0.1% up and down increments thereafter.¹⁷¹

Public disclosure also is often subject to a delay from reporting to dissemination.¹⁷²

None of the foreign jurisdictions reviewed by the Division requires short position reporting in real time, instead requiring reports with frequencies ranging from daily¹⁷³ to weekly.¹⁷⁴ Reporting times vary between one and three trading days following the date of the position creation or calculation.¹⁷⁵ In the E.U., trading entities must submit their data to the regulator by 3:30 pm on the following trading day.¹⁷⁶ Trading entities accomplish public disclosure via a central website operated or supervised by the relevant competent authority.¹⁷⁷

Several of the foreign jurisdictions reviewed by the Division have short sale order marking and short sale transaction or volume reporting requirements.¹⁷⁸ For example, Canada¹⁷⁹, Hong Kong¹⁸⁰, and Singapore¹⁸¹ have short sale order marking requirements. In Australia, the

¹⁷¹ E.U. Regulation No. 236/2012, *supra* note 166, Article 6(2).

¹⁷² *See, e.g.*, Regulatory Guide 196 (Australia), *supra* note 164, RG 196.133, RG 196.143.

¹⁷³ *See* EU Regulation No. 236/2012, *supra* note 166, Article 9(2).

¹⁷⁴ *See* Hong Kong Securities and Futures Ordinance, Ch. 571AJ, Securities and Futures (Short Position Reporting) Rules, *supra* note 168.

¹⁷⁵ *See infra* Appendix C: Related Regulations in Certain Foreign Jurisdictions.

¹⁷⁶ E.U. Regulation No. 236/2012, *supra* note 166, Article 9(2).

¹⁷⁷ *Id.*, Article 9(4).

¹⁷⁸ *See infra* Appendix C: Related Regulations in Certain Foreign Jurisdictions for summary of marking and reporting requirements.

¹⁷⁹ *See generally* IIROC, Provisions Respecting Regulation of Short Sales and Failed Trades, No. 11-0075 (Feb. 25, 2011), available at

<http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=14604580516B48F88A0BCFA629781242&Language=en> ; Ontario Secs. Comm., National Instrument 23-101 - Trading Rules, Part 11.2, available at

http://www.iiroc.ca/industry/Documents/NationalInstrument23101_en.pdf; IIROC, Rules Notice Request for Comments, Proposed Guidance on 'Short Sale' and 'Short-Marking Exempt' Order Designations, No. 11-0076 (Feb. 25, 2011), available at

<http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=09B964F0FD814123AD04640B2F04A012&Language=en>.

¹⁸⁰ *See* Hong Kong Exchange Rules, Eleventh Schedule, Rule 5; Hong Kong Securities and Futures Ordinance, Part VII Restriction on Short Selling, etc.: Sections 170 (Short Selling Restricted), 171 (Requirements to confirm short selling order), 172 (Requirements to Disclose Short Sales), and Section 397: Rules by Commission of the Securities and Futures Ordinance, *supra* note 169; *see also* Hong Kong Securities and Futures Commission, Consultation Conclusions on Increasing Short Position Transparency (Mar. 2, 2010) (“Hong Kong Consultation Conclusions”), item 10, available at

<http://www.sfc.hk/web/doc/EN/speeches/consult/consultationconclusion2march2010english.pdf>.

Australian Securities and Investments Commission publishes transaction volume by security on its website on the day following its receipt of a short position report.¹⁸² In Hong Kong¹⁸³ and Poland,¹⁸⁴ the exchanges publish short sale volume information.

D. Interest in Additional Short Sale Data

The financial crisis highlighted the fact that regulators are often unable to identify short sellers and short position holders in a timely manner. As noted in the CAT adopting release, the audit trail data currently available to regulators, which includes short sale marks, suffers from deficiencies in accuracy, completeness, accessibility, and timeliness.¹⁸⁵ In particular, an investigation that involves examining potential manipulation, such as an investigation of the activity of particular short sellers, could require the gathering of data through the audit trail systems of multiple SROs, the electronic bluesheet system, Exchange Act Rule 17a-25, and equity cleared reports.¹⁸⁶ Although the SROs began disclosing short selling volume and transaction data in 2009, the Commission and other regulators lack direct access to the data necessary to quickly identify short sellers and short position holders. However, pursuant to any

¹⁸¹ See Monetary Authority of Singapore, *Guidelines on Short Selling Disclosure*, SFA 15-G02 (Jan. 9, 2013) available at

<http://www.mas.gov.sg/~media/MAS/Regulations%20and%20Financial%20Stability/Regulations%20Guidance%20and%20Licensing/Securities%20Futures%20and%20Fund%20Management/MIS%20Regs/SFA%20Guidelines%20on%20Short%20Selling%20Disclosure%20%209%20January%202013.pdf>; see also Singapore Exchange Limited, Public Consultation, Implementation of Marking of Sell Orders (July 23, 2010), available at http://www.thenextview.com/sgxnews/20100723_124506_S68_204F19D16A518F56482577690019EA91.2.pdf.

¹⁸² See Regulatory Guide 196 (Australia), *supra* note 164, RG 196.143 “(total short positions held in a product on day T will be published on T+4”); Corporations Regulations 2001 (Cth), reg 7.9.102 (Australia), available at http://www.austlii.edu.au/au/legis/cth/consol_act/ca2001172/; discussion with Australian regulators (Feb. 22, 2011).

¹⁸³ Hong Kong Exchange Rules, Eleventh Schedule, Rule 5.

¹⁸⁴ See Warsaw Stock Exchange Rules, § 107, § 171a, available at

<http://www.gpw.pl/pub/files/PDF/regulacje/rules-wse.pdf>; Act on Trading in Financial Instruments (2005), available at http://www.knf.gov.pl/en/Images/ustawa_o_obrocie_aktualizacja_2011_tcm81-26532; Detailed Exchange Trading Rules (Poland), Short Sale Ch. 12 (the exchange management board puts out the detailed scope of information to be included in order), available at <http://www.gpw.pl/pub/files/PDF/regulacje/SZOG-en.pdf>. Volume information is available at http://www.gpw.pl/krotka_sprzedaz_pelna_wersja_en.

¹⁸⁵ See Exchange Act Release No. 67457, 76 FR at 45721, Section II.A.1 (discussion of data qualities).

¹⁸⁶ See Exchange Act Release No. 67457, 76 FR at 45730-31; *supra* Section II.A.2.a.

approved NMS Plan, which would create, implement, and maintain a CAT, the Commission and other regulators will have access to the data necessary to quickly identify short sellers and short position holders.¹⁸⁷

Despite an apparent lack of interest in the additional short selling volume and transaction data that became available post-crisis,¹⁸⁸ many market participants indicate an interest in more public short selling data.¹⁸⁹ Some market participants point to weaknesses in currently available data, to asymmetry between long and short reporting, or to the need for information on voting rights or market sentiment while other market participants generally advocated for more information about short selling, either publicly or to regulators.¹⁹⁰ However, relatively few called for either the real-time transaction marks or short position reports specified in Section 417 of the Dodd-Frank Act.¹⁹¹ In fact, several commenters specifically conditioned their support for public disclosure on a non-real-time regime involving a delay, with proposed delays ranging from 1 to 45 days.¹⁹²

¹⁸⁷ See Exchange Act Release No. 67457, 76 FR at 45721.

¹⁸⁸ See discussion *supra* Section III.A.3.

¹⁸⁹ Of course, the Division recognizes that some interested market participants simply may not know how to access or process either the short sale transaction data or short sale volume data. In addition, the short sale volume data is available at the end-of-day, but the transaction data, available on a one month delay, may be too stale for many uses.

¹⁹⁰ See letters from Shelley Teepe (May 4, 2011); Ruairi O. Nuallain; Peter A. Miller (May 6, 2011); Christine Lambrechts (May 6, 2011); Mark W. Hamburg (May 6, 2011); Jeff Dane (May 6, 2011); Eugene F. Harris, Jr. (May 6, 2011); Suzanne H. Shatto; Karen Polege; John Bird; Robert Bourget; Peter E. Meixler; Neil Moskowitz (May 8, 2011); Lee R. Donais; Richard Rulewicz (May 8, 2011); Troy Slonecker; Brian Sutcliffe (May 9, 2011); Kelly D. Wilson; Jay C. Bexell (May 10, 2011); Larry Sage (May 10, 2011); Kevin Dalton; Gary M. Lieberman (May 10, 2011); Sally P. Edwards; Jeff Dickey; Laura H. Hearne; Robert Tecca (May 12, 2011); Jane M. Reichhold; Michael Finch (May 19, 2011); Michael Dexter (May 28, 2011); Norman L. Slesman (May 28, 2011); Raymond E. Williams; Reza Ganjavi; Ken Trzecki (May 29, 2011); Don Herr (May 29, 2011); Jordan Gushurst; Alan Goldenberg (Jun. 1, 2011); Ed Schweitzer; Overstock.com; IASBDA; James Ballard; Calvin J. Liming (Jun. 6, 2011); Iwao Yagami; Joe Nappu (Jun. 14, 2011); Lawrence F. Glaser; David Hart (Jun. 17, 2011); Henry Jakala; and Hans Brost (July 26, 2011).

¹⁹¹ *But see* letter from Data Explorers (calling for position reporting to regulators “as soon as practicable” and to the public at the end of the day).

¹⁹² See letters from NYSE; Data Explorers; and FIF.

Some market participants have expressed the view that the short selling data that is currently available is not sufficient for the needs of regulators and other interested parties.¹⁹³ For example, some issuers have stated that the short interest data is too stale to be useful.¹⁹⁴ Others have argued that short interest data does not include all positions that are economically meaningful.¹⁹⁵ Some market participants specifically noted that arranged financing is not reflected in short interest calculations, even though many believe it to be economically significant.¹⁹⁶ In addition, the transactional data sets are large, requiring significant skills and resources to evaluate.¹⁹⁷

A number of commenters noted that under current regulations, required reporting about long positions generally is more visible than required reporting about short positions.¹⁹⁸ A few commenters defended this asymmetry, stating that long position reporting requirements are linked to the exercise of voting rights, whereas holders of short positions do not have voting rights.¹⁹⁹ Others advocated making short position reporting requirements symmetrical with

¹⁹³ Discussion with issuers and issuers' representatives (Feb. 11-15, 2011).

¹⁹⁴ *Id.*

¹⁹⁵ Discussion with long and retail investors (Jan. 31, 2011). A number of commenters on this study also raised this issue. *See, e.g.*, letters from Karen Polege (May 6, 2011); Suzane H. Shatto; Laura H. Hearne; Troy Slonecker (May 8, 2011), Lee R. Donais; and Henry Jakala (Jun. 22, 2011).

¹⁹⁶ Discussion with short sellers (January 5, 2011). In an arranged financing transaction, a broker-dealer executes a short sale on behalf of a customer and arranges for a stock loan from an affiliate of the broker-dealer. The customer pays a fee for the securities loan and provides collateral to the broker-dealer affiliate, in the form of cash (using the proceeds from the short sale) or stock, in an amount generally higher than the market value of the securities loaned. The affiliate delivers the loaned shares to the executing broker prior to settlement. Upon receipt of the loaned shares, the executing broker extinguishes the open short position in the customer's account and the customer receives all proceeds from the short sale. The open short position resulting from an arranged financing transaction is excluded from the broker-dealer's short interest calculation. *See* New York Stock Exchange, Exchange Hearing Panel Decision 00-166 (Sep. 28, 2000), available at <http://www.nyse.com/pdfs/00-166.pdf>.

¹⁹⁷ *See* letters from MFA; ICI; Data Explorers; and Professor James J. Angel.

¹⁹⁸ *See* letters from Sanjeev Mahalawat (May 5, 2011); Robert Bourget; Lee R. Donais; Kelly D. Wilson (May 9, 2011); Mourad Zarouri (May 10, 2011); Kevin Dalton (May 10, 2011); Raymond E. Williams; John Crowe (May 30, 2011); Jordan Gushurst (May 30, 2011); Ed Schweitzer (Jun. 1, 2011); Thomas K. Horeis (Jun. 20, 2011); and IBC.

¹⁹⁹ *See* letters from AIMA and MFA.

existing Exchange Act Section 13 reporting requirements for long positions, to give regulators, issuers, and the public a more comprehensive and balanced view.²⁰⁰

Several issuers and others expressed a desire for more short selling information to gauge market sentiment or to seek clarity on ownership.²⁰¹ Several commenters noted that additional short position reporting could provide information on the separation of economic and voting rights that can be associated with “empty voting.”²⁰² The Division notes that certain issuers and investors have written to Congress requesting more trading information, including short selling information.²⁰³

Not all commenters agreed that market participants need more short selling data. For example, some opposed collecting additional data because of the cost and complexity involved, and opposed real-time public disclosure of the data because of unintended adverse consequences to legitimate market activities.²⁰⁴ Some who opposed making real-time data public expressed some degree of support for the collection of additional data for regulators only.²⁰⁵

²⁰⁰ See letters from Sanjeev Mahalawat; Robert Bourget; Lee R. Donais; Kelly D. Wilson; Mourad Zarouri; Kevin Rentzsch; Walter Cruttenden; Reza Ganjavi (May 28, 2011); Raymond E. Williams; Jordan Gushurst; John Crowe; Peter J. Chepucavage, International Association of Small Broker Dealers and Advisors, (Jun. 3, 2011) (“IASBDA”); Iwao Yagami; NIRI; NYSE; Henry Jakala; Lawrence A. Yost (July 6, 2011); and Robert H. Jenkins. See also *infra* notes 477, 478.

²⁰¹ Discussions with long investors and retail investors (Jan. 31, 2011) and issuers and issuers’ representatives (Feb. 11-15, 2011). See also letters from NIRI; Portfolio Recovery Associates; Jon Lukomnik, Executive Director, IRRC Institute (May 9, 2011); Walter Cruttenden; Professor James J. Angel; and Overstock.com.

²⁰² See letters from Jon Lukomnik, Executive Director, IRRC Institute (May 9, 2011); Walter Cruttenden; NIRI; and Professor James J. Angel.

²⁰³ See Jacob Bunge, *Stock Issuers Seek More Clarity on Ownership Makeup*, WALL ST. J. (Mar. 7, 2011).

²⁰⁴ See letters from SIFMA; AIMA; IAA; CPIC; and STANY.

²⁰⁵ See, e.g., letters from Alfredo Gamon (May 6, 2011); John J. Scott (May 9, 2011); Iwao Yagami; Janet L. McGinness, NYSE Euronext (Jun. 21, 2011) (“NYSE”); MFA; Data Explorers; Manisha Kimmel, Executive Director, Financial Information Forum, (Jun. 23, 2011) (“FIF”); AIMA, ICI; IAA; CPIC; and STANY. This point was also noted to the Division in its discussions with, among others, short sellers (Jan. 5, 2011), introducing brokers (Jan. 21, 2011), options market makers (Jan. 24, 2011), and data vendors (Mar. 22, 2011).

IV. Transaction Marking Pilot

As required by Section 417(a)(2)(B) of the Act, the Division studied the possibility of a Transaction Marking Pilot, in which five transaction marks would be added to the Consolidated Tape:²⁰⁶ short, market maker short, or long for the sell side of the transaction and buy or buy-to-cover for the buy side of the transaction. The Division's analysis of feasibility, benefits, and costs first considers the potential economic effect of Transaction Marking and then examines whether the voluntary Transaction Marking Pilot would provide additional insight into the potential economic effects of Transaction Marking.

The Division used existing definitions for the marks where available. As described above,²⁰⁷ under the current order marking regime and FINRA's Reporting Facilities, sell orders are marked: "long," "short," or "short exempt," and all buy orders are marked "buy."²⁰⁸ Thus, consistent with the definitions of current order marks, the Division used the following definitions:

"long" for a sale of a security that the seller is deemed to own and that is in the physical possession or control of the broker or dealer or that is reasonably expected to be in the physical possession or control of the broker or dealer by settlement of the transaction;²⁰⁹

²⁰⁶ The Consolidated Tape comprises Tapes A and B of the Consolidated Tape Plan and Tape C of the Unlisted Trading Privileges or "UTP" Plan. Trades in NYSE-listed securities are reported to Tape A; trades in NYSE-Amex, NYSE-Arca, and regional exchange-listed securities are reported to Tape B; and trades in NASDAQ-listed securities are reported to Tape C. Transactions in unlisted equities, options, or non-equity securities are not currently reported to the Consolidated Tape. Transactions are reported to the Tape on a real-time basis, which under current Consolidated Tape Association (CTA) rules means within 30 seconds of a trade.

²⁰⁷ See discussion *supra* Section III.A.3.

²⁰⁸ See *id.*

²⁰⁹ See *id.*; 17 CFR 242.200 (g); 17 CFR 200 (a)-(f).

“short” for any sale of a security that is not a long sale, i.e., a sale of a security that either (i) the seller is not deemed to own or (ii) that is not in the physical possession or control of the broker-dealer or that is not reasonably expected to be in the physical possession or control of the broker-dealer by settlement of the transaction;²¹⁰

“short exempt” for any short sale that may be executed or displayed by a trading center without regard to the price test restriction of Rule 201 under Regulation SHO Rules 201(c) and (d);²¹¹

“buy” (for all purchases that are not “buy-to-cover” transactions, as described below).

We note that marks currently in use are not submitted to or reported on the Consolidated Tape but are required to be maintained as part of broker-dealers’ and exchanges’ order records, and most are required, pursuant to FINRA rules, to be submitted to OATS or FINRA’s Reporting Facilities.²¹²

Section 417(a)(2)(B) requires the Division to consider two marks, “market maker short” and “buy-to-cover,” that are not current order marks. For purposes of the study, we interpret the “market maker short” mark to apply to any sale of a security by a market maker that either (i) the market maker is not deemed to own or (ii) that is not in the physical possession or control of the broker-dealer or that is not reasonably expected to be in the physical possession or control of the broker-dealer by settlement of the transaction). We note, however, that the term “market maker” could be interpreted to have a number of possible meanings, which could complicate implementation of a “market maker short” mark. These include the approach by the Commission

²¹⁰ See 17 CFR 242.200 (g); 17 CFR 200 (a)-(f).

²¹¹ See 17 CFR 242.201(b)(1)(iii)(B), 242.201(c), and 242.201(d). The study does not consider including a “short exempt” mark on the Consolidated Tape, but includes the definition to recognize that the mark currently exists. Presumably, reports to the Consolidated Tape would mark transactions involving orders marked “short exempt” as “short.”

²¹² See *supra* Section III.B. and note 129 on current order marking requirements under FINRA’s OATS system; see also FINRA Rule 7440.

and other Federal agencies in the Volcker Rule proposing release,²¹³ as well as statutory²¹⁴ and regulatory²¹⁵ definitions.²¹⁶ Thus, the “market maker short” mark could be defined, for example, to include all short sales by a registered market maker, or alternatively to include only bona fide market making, whether by a registered market maker or otherwise. The Division interprets the term “buy-to-cover” to refer to a transaction effected to cover a short sale, *i.e.*, to close out a short position by buying the security and then returning it to the lender.²¹⁷

Given the speed at which equity markets operate, the Division concludes, at this time, that the most feasible way to report transaction marks to the Consolidated Tape in real time would be to populate the transaction marks with information from the order marks.²¹⁸ Transaction marks derived from order marks would reflect the investors’ position at the time of order entry,

²¹³ See Prohibitions and Restrictions on Proprietary Trading and Certain Interests in and Relationships with Hedge Funds and Private Equity Funds, Exchange Act Release No. 65545 (Oct. 12, 2011), 76 FR 68846 (Nov. 7, 2011). The proposed approach would require that an agency consider certain factors in determining whether trading activities constitute proprietary trading rather than market making, including the trading unit’s risk management, source of revenue, revenue generation relative to risk, customer-facing activity, payment of fees, commissions and spreads and compensation incentives. See 76 FR at 68961-63; see also FINANCIAL STABILITY OVERSIGHT COUNCIL, STUDY & RECOMMENDATIONS ON PROHIBITIONS ON PROPRIETARY TRADING & CERTAIN RELATIONSHIPS WITH HEDGE FUNDS & PRIVATE EQUITY FUNDS 18 -19 (Jan. 2011).

²¹⁴ See Section 3(a)(38) of the Exchange Act. 15 U.S.C. 78c (3)(a)(38) (defined as “any specialist permitted to act as a dealer, any dealer acting in the capacity of block positioner, and any dealer who, with respect to a security, holds himself out (by entering quotations in an inter-dealer communications system or otherwise) as being willing to buy and sell such security for his own account on a regular or continuous basis.”)

²¹⁵ See Rule 203(b)(2)(iii) and 203(c)(1) of Regulation SHO, 17 CFR 203(b)(2)(iii) and 17 CFR 242.203(c)(1); see also Exchange Act Release No. 50103, 69 FR at 48015; Exchange Act Release No. 58775, 73 FR at 61698-61699.

²¹⁶ The Commission has identified several activities that are not bona fide market making, including: (i) activity that is related to speculative trading strategies or investment purposes of the broker-dealer and is disproportionate to the usual market making patterns or practices of the broker-dealer in that security; (ii) continually posting at or near the best offer, but not also posting at or near the best bid; or (iii) transactions whereby a market maker enters into an arrangement with another broker-dealer or customer in an attempt to use the market maker’s exception for the purpose of avoiding compliance with Rule 203(b)(1) by the other broker-dealer or customer. See Exchange Act Release No. 50103, 69 FR at 48015. The Commission has identified the following activities as bona-fide market making: providing liquidity to a security’s market, taking the other side of trades when there are short-term buy-and-sell-side imbalances in customer orders, or attempting to prevent excess volatility; a pattern of trading that includes both purchases and sales in roughly comparable amounts to provide liquidity to customers or other broker-dealers; continuous quotations that are at or near the market on both sides and that are communicated and represented in a way that makes them widely accessible to investors and other broker-dealers. See *id.*

²¹⁷ As discussed in Section IV.A.2 *infra*, the Division believes that the “open/close indicator” might provide the information for a “buy-to-cover” mark. See *infra* note 238.

²¹⁸ An exception would be a situation in which the person reporting the transaction knows that the transaction will result in a short sale position, as for short sales that currently do not originate from orders.

as under the order marking rules,²¹⁹ as opposed to the investor's position at the time of order execution.²²⁰ As with the current short sale volume and transaction data, using the executions of orders marked short could lead to overestimating short sale volume.²²¹ The Division considered the position at order execution and believes that, in most situations, it would be incompatible with the real-time functioning of the Consolidated Tape. Specifically, for all transaction marks to reflect investors' positions at execution, the transaction report would have to be delayed following the execution of orders while the investors are queried as to their positions as of the execution time.

A number of commenters expressed general support for the Transaction Marking Pilot,²²² with some suggesting that it would be a cost-effective means of addressing short sale abuse.²²³ Other commenters disagreed, discounting the seriousness of short selling concerns, or stressing the costs involved and the existing sources of information.²²⁴

The Division concludes that the Transaction Marking Pilot is unlikely to be cost-effective when compared to the baseline. The Division recognizes that Transaction Marking could provide valuable new information on real-time market sentiment, particularly if vendors sell summary information based on the marks in real time. The Division also recognizes that Transaction Marking could discourage abusive short selling, particularly if it enhances real-time SRO surveillance. However, the regulatory benefits of Transaction Marking would be modest in light of the CAT. As discussed in more detail below,²²⁵ adding the specified marks to the Consolidated

²¹⁹ See *supra* notes 125-131 and accompanying text.

²²⁰ See generally *supra* Section III.A.3.

²²¹ See *supra* note 138 and accompanying text.

²²² See letters from Overstock.com; Portfolio Recovery Associates; IASBDA; David Hart; Lawrence F. Glover; Jordan Gushurst, Don Herr; Norman L. Slesman; Gary M. Lieberman; Lee R. Donais; and Peter A. Miller.

²²³ See letters from Overstock.com; Portfolio Recovery Associates; and IASBDA.

²²⁴ See letters from MFA; Data Explorers; ICI; FIF; CPIC; SIFMA; AIMA; STANY; and Professor James J. Angel.

²²⁵ See *infra* Section IV.D.

Tape would be expensive. Hundreds participants would need to update trade reporting systems, order management systems, or systems that receive Consolidated Tape feeds to provide for one or more of the marks.²²⁶ In addition, while the additional real-time information could promote price efficiency, it could also harm liquidity by allowing opportunistic traders to anticipate market maker trades.

The Transaction Marking Pilot affecting only a self-selected subset of listed companies would entail costs at least as great as, and more likely greater than, those of a full implementation. For example, changes to order management and order entry systems would be required at all market participants even if the new transaction marks only applied to a subset of listed companies. In addition, because the potential effects of Transaction Marking on issuers would be unclear and possibly negative, the requirement that the Transaction Marking Pilot be “voluntary” could result in the pilot group being too small for a reliable study. Further, the fact that the pilot would not be a randomized sample, *i.e.*, it would be composed of the stocks of self-selected issuers, would complicate interpretations of the results of any such pilot, because the participants likely would be unrepresentative of the market as a whole. Leaving this important caveat aside, the Division has considered what information Transaction Marking could provide and the ways different types of market participants could use the information, as well as the resulting overall impact on market quality.

²²⁶ Discussion with prime brokers and clearing firms (Feb. 7, 2011). The Division notes that these market participants also advised the staff that thousands of market participants would need to modify their order management systems to provide for the “buy to cover” mark as well. However, the Division believes that this will be unnecessary to the extent an NMS Plan for a CAT is in place. In particular, under this condition, broker-dealers will be required to report an “open/close indicator,” which exchanges and others reporting transactions to the Tape can use to populate “buy-to-cover” marks. For an explanation of the Division’s view, see Section IV.A.2 *infra*.

A. Information from Transaction Marking

1. Comparison to Current Data

During periods of market stress when there are an increasing number of rumors about the role of short sellers, the utility of timely, accurate information about short selling would be particularly high.²²⁷ The real-time availability of current “long,” “short,” and “buy” order marks alone would significantly improve the timeliness of such information compared to existing short selling transactional data sets, such as end-of-day volume and one-month lagged short sale transaction data. Real-time availability of all five potential marks would permit an even more granular distinction between different types of sell and buy marks and would increase the comprehensiveness and precision of the information that market participants could derive from transaction data feeds.

Market participants could infer market sentiment and changes in market sentiment more quickly and accurately from the data stream that would result from the transaction marks. In particular, the “market maker short” mark would significantly enhance the information conveyed by the “short” mark, by separating out short selling by market makers, who typically short to facilitate customer buying demand, from potentially well-informed directional short sales.²²⁸ (As typically used in the academic literature, being “informed” refers to having information regarding the future value (short-term or long-term) of the company.) According to several

²²⁷ Discussions with issuers and issuers’ representatives (Feb. 11-15, 2011). *See also* discussion of 2008 events *supra* Section II.B.

²²⁸ Academic evidence suggests that market makers’ trades typically are not informed. *See, e.g.* Richard Evans, Chris Geczy, David Musto & Adam V. Reed, Failure is an Option: Impediments to Short-Selling and Option Prices, 22 (5) REV. FIN. STUDIES 1955-80 (Apr. 2009); Engelberg, Reed & Ringgenberg, *supra* note 67. On the other hand, there is some evidence that market makers sometimes engage in informed trading. *See* Fang Cai, Trader Exploitation of Order Flow Information During the LTCM Crisis, 32 Journal of Financial Research 261-84 (2009).

issuers and market makers, as conveyed in discussions with Division staff,²²⁹ separating market maker shorts from other shorts would provide issuers and market commentators with additional insight into market sentiment.²³⁰ The “market maker short” mark also could facilitate regulatory monitoring of the use of market maker exceptions to Regulation SHO.²³¹

Similarly, the “buy-to-cover” mark would increase the information quality of the “buy” mark because buy-to-cover transactions could occur for reasons other than regular buys, hence signaling different information about stock value. In addition, information about buy-to-cover volume would shed light on existing short selling data, because it would provide a more precise level of the pattern of outstanding short positions of traded stocks at a point in time, and could enable better estimates of the typical holding period for a short seller.

2. Comparison to Potential CAT Data

This analysis compares the costs and benefits of regulatory use of data from Transaction Marking to regulatory use of potential CAT data. If the Commission approves an NMS Plan to create, implement, and maintain a CAT, Transaction Marking would provide regulators with little additional short selling information, but would provide the same information in a somewhat

²²⁹ Discussions with equity market makers (Jan. 18, 2011) and issuers and issuers’ representatives (Feb. 11-15, 2011).

²³⁰ *See, e.g.*, letters from Overstock.com and NIRI. *But cf.* letter from CPIC (arguing that transaction marks would not provide incremental benefits in combating abusive short selling.)

²³¹ Three Regulation SHO rules include market maker exceptions, although the exception set forth in Rule 201 is extremely narrow and applies only in the context of facilitating odd-lot orders for customers as further described below. Rule 203(b)(2)(iii) excepts market makers selling short in connection with bona fide market making activities from the requirement that prior to effecting a short sale, a short seller must either borrow or have reasonable grounds to believe he can borrow a security in time for delivery. *See* 17 CFR 242.203(b)(2)(iii). Rule 204(a)(3) provides that fail to deliver positions attributable to bona fide market making activities by a registered market maker, options market maker, or other market maker obligated to quote in the over-the-counter market, must be closed out by no later than the beginning of regular trading hours on the third consecutive settlement day following the settlement date (T+6), rather than the settlement day following the settlement date (T+4). *See* 17 CFR 242.204(a)(3). Rule 201 contains a “circuit breaker” that generally imposes a restriction on the price at which securities experiencing a severe price decline may be sold short, but affords a very limited exemption for short sale orders by market makers to offset customer odd-lot orders or to liquidate an odd-lot position that changes such broker’s or dealer’s position by no more than a unit of trading. *See* 17 CFR 242.201(d)(2).

more-timely manner. In particular, the CAT would likely contain enough information to determine when a trade involved a long, short, or market maker short sale and a buy or buy-to-cover.²³² However, Transaction Marking would provide that information to regulators in a more-timely manner than the CAT could. Rule 613(c)(3) requires the SROs to submit an NMS Plan that requires broker-dealers and SROs to report certain records on order events by 8:00am on the trading day following the day such information was recorded.²³³ Thus, regulators would not have access to all of the CAT data until sometime after 8:00am on the trading day following the day such information was recorded.²³⁴ Another advantage of Transaction Marking is that while regulators might need to process CAT data to identify buy-to-cover and market maker short activity, this information would be immediately available on the Consolidated Tape in Transaction Marking.²³⁵ Both of these advantages of Transaction Marking essentially relate to the timeliness of the information available to regulators as opposed to the breadth of information.

The analysis below compares the potential CAT data to Transaction Marking when assessing the feasibility of the Transaction Marking Pilot. In particular, the Division believes that some of the changes required to add an “open/close indicator” to order entry and management systems could reduce the infrastructure changes that would be required by Transaction Marking. If approved, the CAT NMS Plan would require that each order have an “open/close indicator” attached as a “material term of the order.”²³⁶ The open/close indicator will follow an order from

²³² See *supra* notes 148-150.

²³³ See Rule 613(c)(3).

²³⁴ See Rule 613(a)(1)(ii) and the discussion in Section III.C.2 of Exchange Act Release No. 67457, 77 FR at 45721.

²³⁵ See *supra* notes 148-150. In addition, while the CAT does not directly require the identification of market maker short sales, the Division believes that CAT data will provide enough information to make such identifications from the Customer-ID, CAT-Reporter-ID, and execution capacity information. See Rule 613(c)(7)(i)(A) and (C) and 613(c)(7)(v)(D).

²³⁶ See Rule 613(c)(7)(i)(F); (c)(7)(ii)(G); (c)(7)(iii)(F); and (j)(7) (including the open/close indicator in the definition of “material terms of the order,” for purposes of the Rule); Exchange Act Release No. 67457, 76 FR at 45721.

original receipt or origination, through routing and, if applicable, modification.²³⁷ As a result, the Division believes that exchanges and others who report transactions to the Consolidated Tape will already have the information they need for a “buy-to-cover” mark.²³⁸

The analysis does not compare the CAT to Transaction Marking to analyze the costs and benefits of the *public* availability of data from Transaction Marking. When the CAT Rule was adopted, the Commission deemed it premature to require that the NMS Plan include the provision of CAT data to third parties.²³⁹

B. Limitations on Information from Transaction Marking

Practical issues of compliance, implementation, and size of the data set would limit the benefits of information from Transaction Marking. In particular, as explained further below, defining the “market maker short” mark would involve several considerations that would affect benefits and costs; interpreting the marks may not be straight forward; and analyzing the marks may be impractical for many interested market participants.

1. Potential considerations in the definition of the “market maker short” mark

As discussed above, the “market maker short” mark is not in current use and is not defined in the Dodd-Frank Act or in other securities laws or rules.²⁴⁰ According to commenters, the lack of definition presents complications that may affect costs and benefits.²⁴¹ The Commission, if considering a “market maker short” mark, could define such mark to include all short sales by a registered market maker, or alternatively to include only bona fide market

²³⁷ *Id.*

²³⁸ Such a mark could be derived from the “open/close indicator” required by the CAT. *See* Exchange Act Release No. 67457, 76 FR at 45721. *See also* Exchange Act Release No. 62174, 75 FR at 32575 (“an open/close indicator could be used to indicate when a buy order in a stock is a buy-to-cover on a short sale”).

²³⁹ *See supra* note 151.

²⁴⁰ *See supra* notes 213-216 and accompanying text.

²⁴¹ *See* letters from NYSE and SIFMA, detailing definitional complexities and their importance. The letter from NYSE also raises confidentiality concerns in the case of the single market maker structure.

making, whether by a registered market maker or otherwise. Market participants could use a market maker short mark of the first type to distinguish between short selling by market makers, which is typically not informative, and short selling by other market participants.²⁴² However, under this definition, transactions that are unrelated to bona fide market making activities, and thus possibly informative, would also be marked as “market maker shorts.” Regulators and broker-dealers could use a “market maker short” mark of the second type to help monitor whether exceptions such as the market maker exception to the “locate” rule of Regulation SHO were being used appropriately.²⁴³

Market participants expressed concerns that the particular definition of the “market maker short” mark influences how consistently market participants interpret and apply the definition.²⁴⁴ In particular, market participants informed the Division that they have difficulty applying the definition of bona fide market making with regard to exceptions from the locate rule.²⁴⁵ The Division believes that applying the definition of bona fide market making to the market maker short mark is not likely to add additional compliance costs, because it would only be used when the market maker is already relying on the definition of bona fide market making to take advantage of the exception to the locate requirement.²⁴⁶ However, the Division recognizes that if market participants do not consistently apply the definition of bona fide market making to the locate requirement, it will not be consistent in a “market maker short” mark either. Such inconsistency could reduce the reliability of some non-regulatory interpretations of the mark.

²⁴² The preponderance, but not all, of the academic evidence suggests that market makers are uninformed. *See supra* note 228.

²⁴³ *See supra* note 231 for a discussion of the market maker exception from the locate requirement of Regulation SHO Rule 203.

²⁴⁴ Discussion with prime brokers and clearing firms (Feb. 7, 2011).

²⁴⁵ *Id.* The staff works with market participants to address these concerns on a regular basis. *See, e.g.*, Regulation SHO FAQ, *supra* note 132, Question 4.7, available at <http://www.sec.gov/divisions/marketreg/mrfaqregsho1204.htm>.

²⁴⁶ *Id.* *See also* Regulation SHO FAQ, *supra* note 132, Question 4.7.

Market participants could implement a mark for registered market makers—as opposed to a mark for bona fide market making—more consistently because a market maker either is registered or not registered in a particular stock.

Another consideration would be whether a “market maker short” mark should include shorting by options market makers.²⁴⁷ Options market makers sell short the stocks underlying options primarily to hedge activity that facilitates customer demand in the options market. Further, options market makers benefit from some, but not all, of the same exceptions to Regulation SHO as market makers in equities.²⁴⁸ The Division also recognizes that there are distinct differences between options market making and market making in the equity markets²⁴⁹ and that a “market maker short” mark could reflect several different activities. Short selling by options market makers and short selling in the course of bona fide market making by market makers in the underlying stocks is similar because both occur in the facilitation of customer demand and likely do not reflect a view on the future return of the stock. However, they differ in that short selling by an options market maker usually reduces the risk exposure of the market maker while short selling by the market maker in the underlying stock increases the exposure of the market maker to price moves, at least in the short term.

²⁴⁷ Option market makers indicated to the Division that they should be included in the market maker definition to preserve consistency in the interpretation of the marks. Discussion with options market makers (Jan. 24, 2011).

²⁴⁸ As noted *supra* note 231, there are three market maker exceptions to Reg SHO currently: the odd lot exception to Rule 201, the locate exception and the Rule 204 T+6 close out provision. The odd lot exception to Rule 201 is a very limited exemption for short sale orders by market makers to offset customer odd-lot orders or to liquidate an odd-lot position that changes such broker’s or dealer’s position by no more than a unit of trading; it would not apply to option market makers. *See* 17 CFR 242.201(d)(2); Exchange Act Release No. 61595 (Feb. 26, 2010), 75 FR 11232, 11266 (Mar. 10, 2010). The other two exceptions, the locate and close out exceptions, are available to option market makers with respect to short sales used to hedge bona fide option market maker activity. *See* 17 CFR 242.203(b)(2)(iii) and 242.204(a)(3); Exchange Act Release No. 50103, 69 FR at 48015; Exchange Act Release No. 60388 (July 27, 2009), 74 FR 38266, 38276 (July 31, 2009). Option market makers previously had an exception to the threshold security close out requirement of Rule 203(b)(3); that exception was eliminated. Exchange Act Release No. 58775, 73 FR at 61690.

²⁴⁹ *See* Exchange Act Release No. 61595 (Feb. 26, 2010), 75 FR 11232, 11273 (Mar. 10, 2010).

2. Potential limitations in interpreting the marks

Several market participant groups, including short sellers and market makers, noted similar concerns about the interpretation of each of the marks,²⁵⁰ including the “short” mark.²⁵¹ In particular, they noted that participants sell short for many reasons, including fundamental or technical trading, hedging, or as part of market neutral strategies such as long-short arbitrage, and thus there is the potential for misinterpretation of a given short sale or even an increase or decrease in short selling volume. Interpretation of the data resulting from Transaction Marking would also be difficult if the specified marks did not accurately capture short selling. For example, transactions often contain executions of more than one sell order, such as in the execution of a single buy order against two sell orders. To represent short selling at least as well as current data, the Consolidated Tape would need to include multiple marks for each sale or additional data fields.²⁵² In addition, as discussed above,²⁵³ the current order marking rules require broker-dealers to mark an order as of order placement time and the marks are used for regulatory purposes. As discussed above,²⁵⁴ this means that current marking rules might overstate short sales in certain circumstances.²⁵⁵

The potential for market participants to mismark orders, either out of confusion or intentionally, could make it more difficult to interpret the data resulting from Transaction

²⁵⁰ See letters from Data Explorers; AIMA; ICI; CPIC; and SIFMA.

²⁵¹ For a discussion of the definition of the “short sale” mark, see *supra* Section III.A.3 and note 210 and accompanying text.

²⁵² For example, to deal with trades that involve both long and short sales, current transactional data sets use an additional field that indicates the size of a short sale if that is different from the trade size. If no such additional field is added to the Consolidated Tape, the resulting data may be noisier than existing transactional data sets. In addition, the information signal of any short sale transaction would be cleaner if, in addition to the “market marker short” indicator, indicators existed for short sales that are part of a retail, broker-dealer, mutual fund, pension fund, hedge fund, or HFT proprietary trading.

²⁵³ See Section III.A.3.

²⁵⁴ See *id.*

²⁵⁵ See letters from AIMA and SIFMA.

Marking.²⁵⁶ While the Commission and other regulators currently monitor for the latter, it is costly to enforce and deter. Further, the former might persist despite honest intentions. For example, the more complicated the definition of the “market maker short” mark, the harder it would be for market participants to decide when to use it and thus the harder it would be for regulators to determine whether they have employed it properly.²⁵⁷ Of course, carefully crafted definitions and meaningful regulatory consequences can deter mismarking.

Printing marks on the Consolidated Tape in real time for Transaction Marking could make any inaccuracies, imprecision, and interpretation issues even more problematic to the extent that market participants rely on them in making trading decisions. Over time, interpretations by professional traders could improve as they learn how to interpret the data, but market participants who focused on such information only during a crisis would be unlikely to learn how to interpret the data and therefore would be more likely to make poor trading decisions based on the data. While professional traders might better adapt, they too could make interpretation errors.²⁵⁸

In addition, the economic distinction between market maker shorts and other short selling is not always clear. In most cases, removing market maker shorts from a “short” mark would make the “short” mark a better indicator of market sentiment. The difficulties in defining the “market maker short” mark, such as those mentioned above, however, might blur the line between uninformed market making and informed trading. Further, restrictions on front running

²⁵⁶ Note that such activities may have regulatory or legal consequences.

²⁵⁷ Under the current order marking scheme, mismarking is monitored for and enforced. *See, e.g.*, Sandell Asset Management Corp., Securities Act Release No. 8857, Admin. Proc. File No. 3-12865 (Oct. 10, 2007) (settled action in which the Commission found that short orders were improperly marked long); Goldman Sachs Execution & Clearing, L.P., Exchange Act Release No. 55465 (Mar. 14, 2007), Admin. Proc. File No. 3-12590 (settled enforcement action against a prime broker and clearing affiliate for violations arising out of illegal trading scheme which included the mismarking of short sell orders as long).

²⁵⁸ *See* letters from ICI and Jiri Krol.

notwithstanding, market makers might, at times, engage in informed trading using, for example, an informational advantage they may have extracted from their client order flow.²⁵⁹ Finally, in contrast to the “short” mark, the “buy-to-cover” mark might not necessarily exclude short covering by market makers, despite the fact that their short covering purchases might warrant a different interpretation than fundamental short sellers’ purchases. Hence, while Transaction Marking would provide additional information, that information is likely to imprecisely reflect market participant views of firm values and relative price misalignments. This imprecision would render the data resulting from any marks difficult to interpret for some purposes.

3. *Potential limitations in analyzing the data*

The sheer volume of the data would further limit the utility of Transaction Marking for some of the benefits that would accrue to certain investors and issuers. The Division would expect 23 million transaction reports per day on the Consolidated Tape initially, and believes that volume could grow over time, consistent with historical trends.²⁶⁰ Many market participants, with the possible exception of HFTs and other entities with sufficient resources to devote to the analysis of the data, would be unable to directly analyze these large data sets in a meaningful way.²⁶¹ As a result, many interested participants²⁶¹ would likely have to rely on data vendors who might offer products that assist investors with interpreting the data.

Data vendors told the Division that they would evaluate the data and distribute it commercially if it were profitable to do so.²⁶² Although vendors expressed interest in the possibility that regulators, issuers, and investors might become customers for products based on

²⁵⁹ See Ingrid M. Werner, *NYSE Order Flow, Spreads, and Information*, 6 J. FIN. MARKETS 309-35 (2003).

²⁶⁰ This is the average number of trades per day reported to the consolidated tape during the month of November 2013, according to the Trades and Quotes data set from NYXdata and data from the Center for Research in Securities Prices (CRSP). This should not be confused with the estimated 24 million short position reports discussed in Section V.A.2 *infra*.

²⁶¹ See letters from MFA; ICI; Data Explorers; and Professor James J. Angel.

²⁶² Discussions with data vendors (Feb. 4, 2011).

this data, they were not in a position to estimate demand without engaging in additional market research;²⁶³ accordingly, the Division is unable to assess whether demand would be sufficient to achieve the economies of scale necessary to make products based on this data affordable to most market participants. In addition, market participants informed the Division that issuers tend to demand short selling data only when their stocks are under pressure and that smaller issuers may not have the financial resources to pay for such data under any circumstances.²⁶⁴ Further, because of the current lack of products using existing daily short selling volume and transaction data, the Division has little confidence that vendors will eventually create such products based on the contemplated Transaction Marking data. Nonetheless, despite the uncertain demand and a lack of interest in currently available data,²⁶⁵ several data vendors with aligned business models and similar products stated that they might be able to deliver products incorporating the marks at a profit to some customers.²⁶⁶

Retail investors, in particular, would be even less likely than other market participants to directly analyze Transaction Marking data. They are less likely to have the storage, processing capacity, and skills necessary to examine the data in raw form, and are less likely to be able to afford the data services of vendors, than are issuers and institutional investors.²⁶⁷ However, a few commenters suggested that should retail investors attempt to make use of such data either directly or through products provided by their broker-dealer, they could be overwhelmed by the amount of information and could misinterpret the data in ways that may result in poor trading

²⁶³ *Id.*

²⁶⁴ Discussion with issuers and issuers' representatives (Feb. 11-15, 2011).

²⁶⁵ *See supra* Sections III.A and III.D.

²⁶⁶ Discussions with data vendors (Feb. 4, 2011).

²⁶⁷ *See* letter from FIF.

decisions.²⁶⁸ One data vendor informed the Division that it could provide profitable products for retail traders based on the transaction marks, while online retail brokers stated that they would consider offering analytics to active retail traders as long as it would be profitable to do so.²⁶⁹ Nonetheless, the Division notes that many of the benefits discussed below would accrue to retail investors and issuers whether they directly analyze the data or not.

C. Economic Benefits and Costs

1. Detection of Abusive Short Selling

According to commenters, Transaction Marking might discourage abusive short selling because the data from Transaction Marking could help regulators,²⁷⁰ members of the media, and others²⁷¹ monitor markets for potential abusive short selling.²⁷² For example, such data could allow interested commentators to conduct forensic analysis of suspected abuses,²⁷³ or to discover abnormal trading behavior relative to historical trends, such as an increase in short selling activity during a price decline that is unrelated to news.²⁷⁴ Once regulators suspected short selling manipulation, they could use the transaction marks to identify a sample of trades for evaluation and make inquiries for additional data on individual trades. The ability to separate market maker short selling from other short selling could further enable regulators to identify a relevant

²⁶⁸ See, e.g., letters from FIF and SIFMA arguing that the contemplated marks may confuse retail investors and do them more harm than good. See also Troy A. Paredes, *Blinded by the Light: Information Overload and Its Consequences for Securities Regulation*, 81 WASH. UNIV. L. Q. 417, 441-43 and sources therein cited at n.111 and n.123 (2003); Steven D. Smith, *Confidence and Trading Aggressiveness of Naïve Investors: Effects of Information Quantity and Consistency*, 15(2) REV. ACCT. STUDIES 295-316 (2010); and letter from CPIC.

²⁶⁹ Discussion with data vendors (Feb. 4, 2011).

²⁷⁰ See letters from Professor James J. Angel; Lee R. Doanis; Don Herr; Overstock.com; IASBDA; NYSE; and Data Explorers. *But see* letter from CPIC, which expressed the view that existing data are adequate for the detection of abusive short selling.

²⁷¹ See letters from Overstock.com and IASBDA.

²⁷² See letters from IASBDA and NIRI.

²⁷³ See letter from Data Explorers.

²⁷⁴ See letter from Professor James J. Angel.

sample, either a market maker sample or a non-market maker sample. If it became easier for regulators to detect abusive short selling, it might deter some would-be manipulators from using short selling in manipulative schemes.²⁷⁵

However, the Division believes the benefits of Transaction Marking in enhancing monitoring by regulators would be modest, particularly because regulators would have access to CAT data, if the Commission approves the NMS Plan. As mentioned above,²⁷⁶ the only incremental benefit to regulators from Transaction Marking in addition to the CAT would be the timeliness of Transaction Marking on the Consolidated Tape, which would be real time, compared to the CAT data, which could be available to regulators the next day.²⁷⁷ Therefore, most benefits would be limited to those deriving from enhanced real-time surveillance by SROs, which would not be possible with the CAT. Transaction Marking is less likely to provide significant benefits for regulatory investigations that use more historical data.

Likewise, the Division believes the benefits of Transaction Marking in facilitating monitoring by non-regulators could be modest. The Division recognizes that the Transaction Marking could improve the potential of non-regulators, such as issuers and others in the “private sector,” to monitor for abusive short selling relative to existing data. In particular, Transaction Marking may provide more timely data relative to current data. Nonetheless, the Division believes, along with most of the issuers with which it met,²⁷⁸ that issuers would be unlikely to examine transaction marks directly, even if they had concerns about abusive short sellers. Issuers that spoke with the Division do not use and, in some cases, were not aware of, existing short

²⁷⁵ See letters from Christine Lambrechts; IASBDA; and NIRI.

²⁷⁶ See *supra* Section IV.A.2.

²⁷⁷ As proposed, the CAT would have required real-time reporting, but the adopted rule specified that reporting must instead occur by 8am on t+1. The Commission concluded that while there might be some benefits to receiving data in real-time, the majority of the benefits of CAT did not require real-time reporting. See Exchange Act Release No. 67457 (Jul. 18, 2012), 77FR 45721 (Aug. 1, 2012). See also *supra* note 149.

²⁷⁸ Discussion with issuers and issuers’ representatives (Feb. 11-15, 2011).

selling transaction or volume data;²⁷⁹ only one issuer indicated interest in using the marks directly to monitor short selling activity in its own stock.²⁸⁰ Thus, the Division believes that the large majority of non-regulators such as issuers, with the possible exceptions of issuers in the financial services industry and a handful of other companies, would not use the data to detect and deter abusive short selling. Instead, they would rely on regulators for such monitoring.

2. Market Quality

Transaction Marking would be likely to facilitate trading strategies based on the information supplied, which could have both positive and negative effects on market quality. As discussed below,²⁸¹ some strategies based on transaction marks could promote price efficiency while other strategies or actions could degrade it. In addition, the transaction marks could also increase the costs of market making, reducing liquidity, or could increase trading volume, enhancing liquidity. How an equilibrium with Transaction Marking would compare with current market conditions is unclear.²⁸² The more difficult it would be to use the transaction marks to predict traders' patterns, however, the smaller any negative impacts on market quality would be.

a. Price Efficiency

Broadly speaking, transparency changes that help investors better value a stock will improve price efficiency.²⁸³ Empirical studies also support the idea that short sellers are informed, suggesting that information about short selling could help investors better value

²⁷⁹ See *supra* Section III.A.3.

²⁸⁰ But see letter from NIRI (large percentage of survey respondents believed that greater transparency of short sale transactions or positions would help deter short sale abuses or assist in additional appropriate actions to prevent them).

²⁸¹ See *infra* Section IV.C.1.a.

²⁸² See Grossman & Stiglitz, *supra* note 65. See also letter from FIF, which suggested a five-day delay before the marks are made public to mitigate these market quality concerns.

²⁸³ See letter from Overstock.com.

stocks.²⁸⁴ Professional traders, particularly HFTs or other algorithmic traders,²⁸⁵ might seek to profit by developing trading strategies based on signals from Transaction Marking. In addition, if data vendors found enough demand to profit from products based on the transaction marks, other investors might be able to use such products to improve their investment decisions. If these HFTs, other algorithmic traders, and other observant investors interpret the transaction marks correctly, they could trade to correct an over- or under-valuation sooner than if disclosure of short sale related marks continued to be delayed. Empirical academic studies support the hypothesis that algorithmic trading promotes price efficiency and price discovery, in particular.²⁸⁶

Trading strategies incorporating the transaction marks could also negatively impact certain market participants in ways that could ultimately degrade price efficiency. In particular, the Division considered whether Transaction Marking could facilitate “copycat strategies” that seek to profit by copying the activity of others believed to have better information. To the extent that copycat traders could detect fundamental short selling in transaction marks, they could mimic fundamental short sellers and profit from their research without incurring the cost of that research. Such activity could reduce the profits available to fundamental traders, because copycat trading might move prices before fundamental traders could fully build their planned positions. If it facilitates such trading strategies, Transaction Marking could act as a constraint on

²⁸⁴ See *infra* Appendix E: Evidence on Short Selling and Market Quality for a summary of relevant academic literature. One academic study finds that prices react to short sales even when short sales are not transparent to the market. See Michael J. Aitken, Alex Frino, Michael S. McCorry & Peter L. Swan, *Short Sales Are Almost Instantaneously Bad News: Evidence from the Australian Stock Exchange*, 53(6) J. FIN. 2205-2223 (Dec. 1998).

²⁸⁵ See *supra* note 68 and Section II.C.1.

²⁸⁶ See Terrence Hendershott, Charles M. Jones & Albert J. Menkveld, *Does Algorithmic Trading Improve Liquidity?*, 66 J. FIN. 1-66 (WFA 2008 Paper, Aug. 30, 2010 forthcoming), available at <http://ssrn.com/abstract=1100635>; Terrence Hendershott & Ryan Riordan, *Algorithmic Trading and Information* (NET Institute, Working Paper No. 09-08, Sept. 2009), available at <http://ssrn.com/abstract=1472050>; see also Concept Release on Equity Market Structure, Exchange Act Release No. 61358 (Jan. 14, 2010), 75 FR 3594, 3602 (Jan. 21, 2010).

fundamental short selling, reducing the incentives to conduct fundamental research.²⁸⁷ Less fundamental research could potentially result in over- or under-pricing, because prices would not incorporate information short sellers would have otherwise collected and traded on.

In addition, the Division considered whether the anticipation of fundamental researchers' trading activity could also reduce the profits from fundamental research. If traders use Transaction Marking data to predict future trading of fundamental researchers from their trading patterns, they could trade ahead of them, increasing the transaction costs for the predictable traders.²⁸⁸ Any order anticipation resulting from Transaction Marking also could negatively affect arbitrageurs and technical traders. Such order anticipation strategies, in addition to the copycat strategies, could potentially result in a reduction of activity that promotes price efficiency, counteracting the improvements noted above. The Division notes, however, that Transaction Marking may not provide much value for copycat and order anticipation strategies. In particular, the marks would not identify individual participants or strategies, except in stocks with only one market maker.

The Division considered whether issues with the data, including a lack of precision or accuracy, or difficulty in interpreting it, could result in periodic temporary price distortions and an increase in short term volatility. As noted above,²⁸⁹ Transaction Marking would produce large quantities of data that would be difficult to interpret accurately, in part, because there are many reasons to sell short. Large professional market participants, such as HFTs or algorithmic traders, might learn relatively quickly how to best interpret the information from Transaction Marking.

²⁸⁷ Several commenters argue that some investors may seek to exploit the research of others if transaction marks or short positions are made public. *See* letters from Data Explorers; ICI; CPIC; SIFMA; and AIMA. *See also* Grossman & Stiglitz, *supra* note 65.

²⁸⁸ *But see* letter from IASBDA, which asserts that the contemplated marks will not reveal positions or strategies. In the Division's view, while it is true that the marks will not do so directly, they will provide information from which positions and strategies can be inferred, as the letters from NYSE and SIFMA point out.

²⁸⁹ *See supra* Section IV.B.3.

Their trading would therefore likely correctly interpret the information. However, if the signals from the data were imprecise, even these professional traders would sometimes base trading decisions on misinterpretations. Several commenters²⁹⁰ pointed to a risk of “herding” behavior, “[t]he tendency of investors, like herd animals, to follow the group.”²⁹¹ According to these commenters, the transaction marks could lead traders to misinterpret these imprecise signals and trade incorrectly, leading to a reduction in price efficiency.²⁹² The Division also considered whether, in addition to the imprecision, investors might interpret unpredictable data inaccuracies, such as from data errors, as containing information about fundamental value and trade upon that interpretation. The resulting movement of prices would likely reverse as the market learns additional information. These temporary price movements may give the appearance of overreaction and excess short-term volatility. The Division notes that such issues would not be unique to Transaction Marking data and market participants have learned how to adapt to imprecision in other data sources to limit their exposure to such imprecision. Further, based on experience with short selling transactions data and short selling volume data, the Division believes that the data is precise enough to be informative.

The Division considered whether traders who do not analyze the data thoroughly enough to learn how to interpret appropriately the information from Transaction Marking also would risk making poor trading decisions based on the data. According to several commenters these less sophisticated traders could be overwhelmed by the level of information and lack the resources and sophistication to examine such data in depth, and therefore, might rarely pay attention to

²⁹⁰ See letters from NYSE; MFA; CPIC; and Data Explorers.

²⁹¹ See LIBR. OF CONG., FED. RES. DIV., ANNOTATED BIBLIOGRAPHY ON THE BEHAVIORAL CHARACTERISTICS OF U.S. INVESTORS (Aug. 2010), available at http://www.loc.gov/rr/frd/pdf-files/SEC_Annotated-Bibliography.pdf (“Herding is “[t]he tendency of investors, like herd animals, to follow the group. Such conformity can give rise to bubbles in individual securities and market sectors.”)

²⁹² See letters from MFA; ICI; CPIC; and AIMA.

transaction marks.²⁹³ When they did, they could make inferior decisions based on transaction marks.²⁹⁴ If the focus on transaction marks were correlated across a critical mass of investors, such as on a news release or during a crisis, incorrect and correlated trading decisions could result in herding that temporarily moves prices away from fundamental levels resulting in an overreaction to the news.²⁹⁵ Therefore, under such circumstances, traders making poor investment decisions using Transaction Marking data could harm price efficiency and contribute to volatility. The Division believes, however, that these risks are low. In particular, the circumstances in which traders who do not learn how to interpret information from Transaction Marking will make correlated poor trading decisions are likely to be rare. Further, if these situations occur, those who can correctly interpret the information have the incentive to trade in a way that would dampen any price effects.

While any reduction in abusive trading that would result from the data's contribution to better regulatory enforcement could improve price efficiency, Transaction Marking could also theoretically facilitate abusive trading.²⁹⁶ Transaction Marking could increase the effectiveness of short selling manipulation techniques because it could render coordination easier and manipulative short selling strategies more profitable. In addition, traders could use the buy-to-cover identifier to predict the tipping point when prices have risen enough for a short squeeze to become effective.²⁹⁷ The Division notes, however, that the ability, from Transaction Marking and other data, to detect abuses may counteract any increased ability to trade abusively.

²⁹³ See letters from MFA; Data Explorers; AIMA; ICI; and SIFMA.

²⁹⁴ See Paredes, *supra* note 268; Smith, *supra* note 268; letter from CPIC.

²⁹⁵ Itay Goldstein, Emre Ozdenoren & Kathy Yuan, *Trading Frenzy and Its Impact on Real Investment*, (J. FIN. ECON., forthcoming), available at <http://ssrn.com/abstract=1360907>.

²⁹⁶ See letters from ICI and CPIC.

²⁹⁷ A short squeeze is a type of manipulation in which prices are manipulated upward to force short sellers out of their positions. Short sellers are required by brokers to maintain margin above a certain level. As prices rise, short sellers must add cash to their margin accounts or close out their short positions.

b. Liquidity

The Division believes that Transaction Marking could result in reduced liquidity, particularly because of the dissemination of the “market maker short” mark. High market maker shorting volume predicts buy-to-cover activity in the near future, making market makers particularly vulnerable to squeezes if Transaction Marking makes their shorting public in real time.²⁹⁸ Both equity and options market makers pointed to this vulnerability but indicated that they do not believe that market makers would exit from market making solely because of the adoption of Transaction Marking.²⁹⁹ Instead, prices would incorporate the risk of potential adverse effects on their strategies, resulting in wider bid-ask spreads and decreased liquidity provision by market makers. If wider market maker bid-ask spreads result in higher transaction costs, markets will be less liquid.³⁰⁰

Transaction Marking could also reduce liquidity if it discouraged liquidity-providing short sales from market participants other than market makers.³⁰¹ Issuers and their representatives expressed concern regarding the public disclosure of transaction marks in the form of increased visibility and exposure of short sellers and a potential short-term decrease in trading volume and liquidity.³⁰²

On the other hand, increased trading volume and the existence of multiple market makers could mitigate this liquidity reduction. Having more precise real-time information on short selling and market sentiment resulting from Transaction Marking could encourage more trading.

²⁹⁸ See letters from FIF (predicting that high-frequency traders will use real time marks to trade against market makers); CPIC; and SIFMA; Joel Hasbrouck & George Sofianos, *The Trades of Market Makers: An Empirical Examination of New York Stock Exchange Specialists*, 48(5) J. FIN. 1565-1595 (Dec. 1993).

²⁹⁹ Discussions with equity market makers (Jan. 18, 2011) and options market makers (Jan. 24, 2011).

³⁰⁰ See letters from SIFMA; ICI; and CPIC. Because liquidity can be provided by many market participants, an increase in market makers' spreads does not necessarily translate into higher transaction costs, though it is highly likely.

³⁰¹ See letters from ICI; Data Explorers; and SIFMA.

³⁰² Discussion with issuers and issuers' representatives (Feb. 11-15, 2011).

In addition, for stocks with multiple market makers, the market maker short mark may not provide information useful for predicting when market makers need to trade. The harder the task of predicting when market makers need to trade, the lower the costs of Transaction Marking to market makers.

3. Capital Formation and Corporate Decisions

The effect of Transaction Marking on capital formation also would be unclear. Short selling levels, on average, tend to be lower when prices are falling than when prices are rising.³⁰³ Timely reporting of short sale transactions during periods of market stress that is consistent with this result could serve to calm issuer and investor fears about any potentially manipulative intentions of short sellers.³⁰⁴ Such evidence might be especially important around market events such as follow-on offerings, earnings announcements, corporate restructurings, mergers, and acquisitions when there may be particular concern about manipulative short selling. If regulators and private entities were able to and did monitor Transaction Marking data for evidence of manipulative short selling, that could reassure other market participants. According to commenters, this could, in turn, increase investor confidence in the integrity of markets, eventually leading to enhanced capital formation for issuers.³⁰⁵ Issuers might also find information about short selling activity in their own stock or in the stock of competitors useful to

³⁰³ See Diether, Lee & Werner, *supra* note 76; Ekkehart Boehmer, Charles M. Jones & Xiaoyan Zhang, *Which Shorts are Informed?*, 63 J. FIN. 491-527 (2008).

³⁰⁴ *But see* letter from SIFMA. In its letter, SIFMA suggests that the exploitation of additional short sale disclosure data by market professionals would give them an advantage over retail investors to the point that retail investor confidence would ultimately be harmed, rather than enhanced, by these disclosures resulting in reduced participation by retail investors.

³⁰⁵ See letters from Overstock.com; Data Explorers; and Professor James J. Angel. It is the Division's view that investor confidence in the integrity of the markets could impact capital formation through allocative efficiency. Not enough investor confidence is economically similar to investors expecting returns that are inaccurately low or risk that is inaccurately high. Too much confidence is economically similar to expecting returns that are too high or risk that is too low. In either case, investors may not make the investment decisions that are optimal for the economy and, as a result, capital formation may suffer.

gauge market sentiment around various corporate events.³⁰⁶ Transaction Marking could therefore result in better corporate decisions. However, if Transaction Marking results in decreased short selling and higher transaction costs for investors then the potential deterioration in price efficiency might also impede capital formation and capital allocation efficiency, counteracting these beneficial effects.³⁰⁷ Allocative efficiency, in particular, would be vulnerable if investors made inferior investment decisions based on this data. However, as noted in Section IV.C.2.a above, the Division does not believe that price distortions from correlated inferior investment decisions is a likely effect of Transaction Marking.

Public information about short selling could directly affect capital formation during follow-on or convertible offerings. For example, issuers can expect better terms in a convertible offering if investors are able to hedge their participation in the offering.³⁰⁸ Commenters noted that, because in their view Transaction Marking could potentially increase the risk and cost of short selling in general, such a regime would tend to discourage hedging strategies used for risk management.³⁰⁹ If the Transaction Marking regime made short selling more costly for these investors, they would require higher expected returns from convertible offerings, resulting in a higher cost of capital, harming capital formation.³¹⁰ Some issuers indicated that short sellers are natural purchasers in follow-on offerings of shares, subject to compliance with the securities laws and rules, including Rule 105 of Regulation M.³¹¹ Issuers could use information on the level

³⁰⁶ See letters from Overstock.com and NIRI, citing membership survey showing that issuers follow short interest primarily to gauge investor sentiment.

³⁰⁷ Cf. letter from Overstock.com (anticipating increased cost of capital as “phony liquidity” offered by short sellers disappears with increased disclosure and surveillance.)

³⁰⁸ See, e.g., Brown, *et al.*, *supra* note 86.

³⁰⁹ See letters from MFA; Data Explorers; and CPIC.

³¹⁰ See Brown, *et al.*, *supra* note 87 and accompanying text.³⁰⁸

³¹¹ Rule 105 provides that a person who sells short during the restricted period, defined generally as a five-day period prior to pricing of the offering, cannot purchase in certain offerings. See 17 CFR 242.105; see also *supra* note 888.

of short selling and the expected need to cover those short positions to time follow-on offerings to facilitate capital formation.³¹²

If Transaction Marking were to result in a reduced level of short selling,³¹³ then another indirect effect could be a reduction in portfolio return of any institutional investor that engages in securities lending. Lower levels of short selling, particularly long-term short selling such as fundamental short selling, could result in less securities lending. Mutual funds and pension plans, among other market participants, often supplement their investment returns with proceeds from securities lending. Therefore, as long as at least part of the proceeds from securities lending flows to the investment portfolio, a reduction in short selling could mean lower returns for investors in mutual funds, pension plans, and other securities lenders.³¹⁴

4. Research and Rulemaking Benefits

The more-timely and more granular Transaction Marking data would improve the quality and expand the scope of research by both academics and regulators, which would better inform market participants and independent observers as well as the Commission and SROs. It would allow market participants, independent observers and SROs, as well as the Commission and its staff, to better study and monitor market dynamics on an ongoing basis.³¹⁵ For example, Transaction Marking data would facilitate research of how and when short sellers were trading on fundamentals, on market making short selling activities, and on various trading strategies. Transaction Marking data also could improve the information available for policy decisions. More timely marks would also increase market participants' and regulators' abilities to promptly

³¹² Discussion with issuers and issuers' representatives (Feb. 11-15, 2011).

³¹³ See letters from ICI; Data Explorers; and SIFMA.

³¹⁴ Commenters argue that increased public short selling disclosure may result in reduced short selling and, therefore, lower revenues to institutions that maintain long positions in equities for extended periods such as pension funds. See, e.g., letter from AIMA.

³¹⁵ See letters from Norman L. Slesman; IASBDA; and Professor James J. Angel.

and appropriately analyze concerns regarding short selling, especially during times of market distress, and they would facilitate consideration of whether contingency measures should be introduced in crisis situations.³¹⁶

Finally, as noted above, regulators could use Transaction Marking data to better evaluate regulatory compliance with, for example, the use of market maker exemptions and whether registered market makers trade in liquidity-providing ways.³¹⁷ In discussions, market participants agreed that regulators should have regular access to this type of data for surveillance, enforcement, and other regulatory purposes.³¹⁸ The Division notes, however, that research and many regulatory benefits would not depend on the real-time dissemination feature of Transaction Marking, and would likely be similar as long as Transaction Marking data were made publicly available with a reasonable delay.

The Division also considered whether Transaction Marking would generate more research opportunities for *regulators*, producing rulemaking benefits relative to benefits from research by *regulators* that eventually might result from the CAT. As noted above,³¹⁹ Transaction Marking would be likely to provide timelier information to regulators than CAT by approximately one day. However, this timeliness might not be of much value to the research conducted by regulators. In particular, policy research generally involves months of analysis and interpretation. As a result, regulators would be unlikely to make significant progress on studies using Transaction Marking data before data resulting from the CAT would be available to them.

³¹⁶ See letter from Overstock.com, urging that the contemplated marks will help investors and regulators understand price movements.

³¹⁷ See *supra* Section IV.A.

³¹⁸ Discussions with long and retail investors (Jan. 31, 2011), issuers and issuers' representatives (Jan. 31, 2011).

³¹⁹ See *supra* Section IV.A.2 and note 235.

D. Feasibility and Compliance Costs

The Division believes that the Consolidated Tape could include short sale marks using the current infrastructure for marking orders and reporting trades in all exchange-listed stocks, making Transaction Marking clearly feasible. According to commenters, however, adding the short sale marks specified in the Transaction Marking Pilot would require infrastructure changes to the Consolidated Tape, to trade reporting systems, to order management systems, and potentially to systems that receive and process Consolidated Tape feeds.³²⁰ According to some commenters, the cost of these changes could be significant.³²¹

1. Consolidated Tape Systems

Making changes to the Consolidated Tape would require systems changes and capacity upgrades at the two securities information processors (“SIPs”)³²² that collect and transmit the Consolidated Tape reports, at the thirteen stock exchanges³²³ and two reporting facilities that participate in the Consolidated Tape Plan and the Unlisted Trading Privileges Plan,³²⁴ and at all other market participants that report transactions to FINRA’s Reporting Facilities, such as broker-dealers.³²⁵ Because each transaction contains at least one buyer and one seller, Transaction Marking would require adding at least two fields with multiple values to the

³²⁰ See, e.g., letters from NYSE; FIF; and MFA.

³²¹ See, e.g., letter from MFA; SIFMA; and FIF. *But see* letter from Peter J. Chepucavage.

³²² A SIP is any person engaged in the business of (i) collecting, processing, or preparing for distribution or publication, or assisting, participating in, or coordinating the distribution or publication of, information with respect to transactions in or quotations for any security (other than an exempted security) or (ii) distributing or publishing (whether by means of a ticker tape, a communications network, a terminal display device, or otherwise) on a current and continuing basis, information with respect to such transactions or quotations. See 15 USCS §78c (22)(A). There are two SIPs currently: Nasdaq for Nasdaq-listed securities and Securities Industry Automation Corporation (“SIAC”) for securities listed on an exchange other than Nasdaq.

³²³ A “registered national securities exchange” is a securities exchange that has registered with the Commission under Section 6 of the Exchange Act. See 15 U.S.C. 78f. Currently, there are 18 registered national securities exchanges, of which 13 trade stocks and thus report trades to the Consolidated Tape.

³²⁴ See *supra* note 206.

³²⁵ See letters from NYSE; SIFMA; and AIMA. Discussion with equity market makers (Jan. 18, 2011).

Consolidated Tape to distinguish among the different purchase and sale marks. Modifications to the Consolidated Tape could require additional changes to account for trades representing executions on behalf of more than two parties.³²⁶ The Division understands from conversations with market participants that much of the cost of implementing Transaction Marking would be fixed but that the programming costs could increase with the number of fields added to the tape.³²⁷ The ongoing costs of Transaction Marking to the Consolidated Tape would stem from increased capacity and maintenance requirements to reduce potential latency caused by the larger volume of data.³²⁸

The Division also considered the potential costs of adding transaction marks to the Consolidated Tape to vendors and other users who receive Consolidated Tape data feeds. Any Consolidated Tape users who receive feeds could incur costs to enable them to accept the additional fields. This includes data vendors regardless of whether these data vendors intend to incorporate the new fields into their value-added products.³²⁹ As noted above,³³⁰ data vendors would likely consider whether demand for value-added products would justify the costs of processing the transaction marks. These costs, including storage, processing, developing metrics, programming, and contingency planning, could be sizeable, but vendors would be unlikely to incur them if they did not believe that these improvements would prove to be commercially viable.³³¹

³²⁶ For example, a transaction could represent a trade between two sellers and one buyer.

³²⁷ Discussion with SROs (Jan. 13, 2011).

³²⁸ See letter from Data Explorers. Discussion with SROs (Jan. 13, 2011).

³²⁹ See letters from Data Explorers; and FIF.

³³⁰ See *supra* Sections III.D and IV.B.3.

³³¹ See *id.*

2. Order Management Systems

In addition to changes directly to the Consolidated Tape, Transaction Marking would involve adding order marks to the systems that transmit orders to exchanges and broker-dealers.³³² As noted above,³³³ broker-dealers currently mark orders as “short,” “short exempt,” “sell,” and “buy.” Broker-dealers record these marks in their order management systems (“OMS”) and order entry systems, which feed the systems that transmit orders elsewhere. If the implementation of Transaction Marking occurred after the CAT was operational, the “open/close indicator” on OMS would facilitate including the “buy-to-cover” mark on trade reporting systems.³³⁴ Therefore, the Division contemplates the addition of only the “market maker short” mark when assessing implementation and ongoing costs of changes to OMS.

Commenters did not provide cost estimates for changes to OMS, but did provide information on the nature of systems changes required to add a “market maker short” mark.³³⁵ To support the addition of the “market maker short” mark, any broker-dealer potentially handling market maker orders would incur costs to alter their OMS.³³⁶ Of the more than 5,000 broker-dealers, the Division believes that hundreds could potentially incur costs to handle market maker short orders.³³⁷ The thirteen stock exchanges and any other market center that reports transactions would also have to modify their systems to accept the additional transaction marks. These implementation costs would involve reprogramming the systems for the front-end order entry,

³³² Discussion with SROs (Jan. 13, 2011). *See also* letter from SIFMA.

³³³ *See supra* Section III.A.3.

³³⁴ *See supra* notes 148-150. The comment letter from FIF recommends eliminating the “buy-to-cover” mark from any pilot study because of the high implementation costs involved, but does not seem to consider the CAT.

³³⁵ *See* letters from SIFMA; NYSE; FIF; and Data Explorers.

³³⁶ *See* letter from SIFMA. Discussion with introducing brokers (Jan. 21, 2011).

³³⁷ The Division downloaded a list of market participants from the internet that revealed that more than 400 market participants are registered market makers. The Division verified this number on several locations on the internet. In addition, introducing brokers claimed that they sometimes handle market maker orders. Discussion with introducing brokers (Jan 21, 2011).

and for capturing and transmitting the additional fields.³³⁸ These costs would potentially be limited by the fact that most OMS are set up on variants of the Financial Information eXchange (“FIX”) Protocol,³³⁹ the most recent versions of which (4.2 and higher) could support the additional fields.³⁴⁰ In addition, third party vendors could do much of the updating, creating economies of scale and reducing the costs for the broker-dealer clients of particular third party vendors. Ongoing costs of changes to OMS would include storage for a larger volume of data, as well as the additional bandwidth required to mitigate the potential latency in transmitting data.³⁴¹

Market participants would also incur ongoing compliance costs to monitor additional order or transaction marks. For example, order entry firms would need to ensure that they were correctly marking each order. As is the case under the current order marking regulations, the design of Transaction Marking could allow broker-dealers to rely on, where appropriate, their reasonable judgment about their clients’ representation regarding the “market maker short” mark. The compliance costs could therefore be in line with current order marking compliance costs.

Market participants did not provide sufficient information for the Division to estimate the costs discussed above, but some participants suggested that Reg NMS, Reg SHO Pilot, and Reg SHO Rule 201 implementation could provide a reference for estimating the costs.³⁴² Market participants estimate that the completion time would be between 120 days and 12 months.³⁴³

³³⁸ See letters from NYSE; FIF; and SIFMA.

³³⁹ See letters from Data Explorers; NYSE, and SIFMA. Discussion with introducing brokers (Jan. 21, 2011).

³⁴⁰ Discussion with introducing brokers (Jan. 21, 2011).

³⁴¹ See letter from Data Explorers.

³⁴² See letter from FIF; Discussions with SROs (Jan. 13, 2011) and introducing brokers (Jan. 21, 2011). Although the SROs did not elaborate on what these costs were in adopting Regulation NMS, the Commission estimated that each SRO’s implementation costs would be \$5 million per year. See Exchange Act Release No. 51808 (June 5, 2005), 70 FR 37496, 37582 (June 29, 2005). In adopting Regulation SHO, the Commission stated that the Regulation SHO pilot could cause additional costs for SROs, but did not include a dollar figure for such estimated costs. See Regulation SHO Adopting Release, 69 FR at 48024.

³⁴³ Discussion with SROs (Jan. 13, 2011). SROs noted that the implementation time could be estimated at around 120-plus days from the time exact details are provided. See also letter from FIF estimating 12 months.

E. Voluntary Pilot

As described above,³⁴⁴ Section 417(a)(2)(B) of the Dodd-Frank Act requires the Division to conduct a study of Transaction Marking through a voluntary pilot program in which issuers would make their own determination whether to participate. The objectives of the Transaction Marking Pilot could be to evaluate the impact of the regime on the marketplace, such as testing hypotheses on the potential costs and benefits described above,³⁴⁵ and to understand the likelihood of, and limit the negative effects from, extreme or unanticipated outcomes. The quality of such an evaluation would be particularly sensitive to the pilot's design. To be most instructive, the Division believes the Transaction Marking Pilot should facilitate comparison of similar stocks with different marking rules, over a sufficiently long period that ideally would include different market conditions. However, there is a risk that the Transaction Marking Pilot would not achieve these objectives. As discussed below, not only could it suffer from the typical limitations of pilots, but its voluntary nature could render the pilot infeasible and could complicate the interpretation of the results; moreover, according to commenters, its compliance costs could be greater than full implementation of Transaction Marking.³⁴⁶ Many commenters expressed skepticism about the Transaction Marking Pilot for these reasons, both in discussions with the Division and in comment letters.³⁴⁷

³⁴⁴ See *supra* note 1 and accompanying text.

³⁴⁵ See *supra* Section IV.C.

³⁴⁶ See, e.g., letters from FIF; SIFMA; and Data Explorers. While the results from any pilot study may provide information to inform decision-making, the results must be interpreted within the context of the differences between the pilot and a full implementation discussed earlier in this section. Therefore, the Division compares implementation and compliance costs of the pilot to full implementation.

³⁴⁷ See, e.g., discussions with SROs (Jan. 13, 2011) and issuers and issuers' representatives (Feb. 11-15, 2011); letters from Lee R. Donais; Overstock.com; NYSE; AIMA; and ICI.

1. General Pilot Limitations

The Division considered whether limitations with most pilots generally would affect the utility of the Transaction Marking Pilot and concluded that such limitations are not critical to the success of the Transaction Marking Pilot. Pilots generally face limitations related to the unpredictable nature of market conditions and confounding events. There is no guarantee that a chosen pilot period will experience all market conditions of interest, even if it were to last for several years. For example, the Regulation SHO Pilot was in place for more than two years, but, as it happened, the market was in a low volatility state until the last few months of the pilot period.³⁴⁸

Pilots also face limitations in the fact that market participants, knowing that a pilot is underway, may not act as they would under a permanent regime. Market participants might not find it worthwhile during the operation of a pilot to develop algorithms to take advantage of potentially profitable signals based on Transaction Marking data, particularly if the pilot only includes a subset of equities and is only running for a limited time.³⁴⁹ Short sellers who might otherwise engage in manipulative activities may be less likely to do so during a pilot period knowing that regulators were watching especially closely. Finally, data vendors might not find it worthwhile to offer value-added products that incorporate the new transaction marks if they expect the marks would be temporary.

³⁴⁸ In 2004, the Commission adopted Rule 202T, which provided for the temporary suspension of the short sale uptick rule in certain securities so that the Commission and others could study trading behavior in the absence of a price test. The pilot expired in July 2007 and volatility started increasing in February 2007. *See* Exchange Act Release No. 50103, 69 FR at 48008; Exchange Act Release No. 50104 (July 28, 2004), 69 FR 48032 (Aug. 6, 2004). In the adoption of amendments to Regulation SHO, the Commission said, “the Pilot Results, while dated, in our view should continue to inform our decision-making where relevant.” (Exchange Act Release No. 61595 (Feb. 26, 2010), 75 FR at 11241.

³⁴⁹ In the view of Division staff, Boehmer, Jones and Zhang provide evidence suggesting that trading behavior may not have completely adjusted to the Regulation SHO Pilot. *See* Ekkehart Boehmer, Charles M. Jones & Xiaoyan Zhang, *Unshackling Short Sellers: The Repeal of the Uptick Rule* (Columbia Business School, Working Paper, Dec. 2008), available at <http://www.gsb.columbia.edu/whoswho/getpub.cfm?pub=3231>. Despite this effect, Boehmer, Jones and Zhang found evidence consistent with the evidence gathered during the Reg SHO Pilot.

Such limitations might make a pilot less than ideal, but they might not always be critical to the success of a pilot. For the Transaction Marking Pilot, the Division believes that a pilot that was in place for a sufficient amount of time might induce investors to develop new trading strategies that make use of the data from the pilot. The Transaction Marking could help deter abusive short selling in participating equities as effectively as a full implementation. However, the results of the Transaction Marking Pilot would depend on whether data vendors who would otherwise create value-added products from the transaction marks refrain from doing so for a pilot. The Division is not optimistic about broad data vendor participation, even absent a pilot, based on the lack of value-added products that make use of existing data.³⁵⁰

2. Voluntary Participation

The Division considered the relative advantages and disadvantages of the voluntary nature of the Transaction Marking Pilot. One advantage of a voluntary pilot is that issuers would decide for themselves whether benefits, including the generated data, were sufficient to justify the potential costs to the issuers. Nonetheless, the Division believes that a voluntary pilot design is unlikely to result in an instructive study of Transaction Marking. In particular, the voluntary design would limit the use of the Transaction Marking Pilot as a mechanism for examining hypotheses about the potential economic effects of Transaction Marking. Specifically, the Division considered the effect of “self-selection” and sample size on the ability of the pilot to achieve the objectives described above.

In a voluntary pilot, issuers could “self-select” such that those who would volunteer for the pilot and those that would not volunteer would be different enough to create a “selection bias.” The self-selection process that a voluntary pilot creates could complicate the ability to

³⁵⁰ See *supra* Sections III.B.3 and III.D.

compare pilot stocks to other stocks. Econometric techniques exist that can adjust for selection bias if the self-selection is predictable.³⁵¹ However, a selection bias in a voluntary pilot could still limit the reliability of applying any conclusions from the pilot to the set of issuers that do not participate. The Division believes that the Transaction Marking Pilot sample would be likely to consist of a set of issuers that joined the pilot because they believed participation in the pilot would benefit them.³⁵² Those issuers that believe participation would be costly would not join. The estimated market effects from the Transaction Marking Pilot would represent the effects of Transaction Marking on the self-selected, non-representative pilot group, which likely would be a poor predictor of effects on public issuers as a whole. In discussions with the Division and comment letters, several issuers concurred that a voluntary design might lead to unreliable inferences.³⁵³ Several commenters suggested alternatives to a voluntary pilot,³⁵⁴ such as selecting a fixed number of issuers through a pre-set procedure, *e.g.*, from each listing exchange and stratified over average daily trading volume as was done in the Regulation SHO Pilot.³⁵⁵ The Division agrees that alternatives to a voluntary pilot would improve the likelihood of discovering reliable and useful inferences from a Transaction Marking Pilot.

A voluntary pilot also would not permit control over sample size, and the Division received conflicting predictions of issuer interest in participation in the Transaction Marking Pilot. In comment letters and discussions with the Division, issuers generally expressed a lack of interest in participation and their representatives expressed a reluctance to encourage

³⁵¹ For example, if a person studying the pilot can predict and observe the issuer characteristics, such as size, trading volume, stock return performance, or short interest level, that reflect the decision to volunteer, that person could estimate a model that controls for the decision to volunteer.

³⁵² The letters from Professor James J. Angel and AIMA express this opinion as well.

³⁵³ Discussion with issuers and issuers' representatives (Feb. 11-15, 2011); letter from Overstock.com.

³⁵⁴ *See, e.g.*, letters from Lee R. Donais; Overstock.com; NYSE; AIMA; ICI; and Professor James J. Angel. The letter from CPIC, while opposing new short reporting generally, did not object to the Commission conducting a pilot, noting that the Commission staff would be able to correct for certain distortions.

³⁵⁵ The letter from the ICI recommends this approach.

participation.³⁵⁶ The power of any statistical tests on the data from the Transaction Marking Pilot would be at risk if too few issuers were to volunteer. On the other hand, a NIRI survey of its 2000 issuer members found that 70% of the 224 respondents (a response rate of 11.2% comprised mostly of mid-cap and smaller issuers) stated that they would be willing to participate in the Transaction Marking Pilot.³⁵⁷

The feasibility of the Transaction Marking Pilot could improve if the design parameters allowed for a more balanced group of participants, such as a lower and upper limit on the number of pilot issuers.³⁵⁸ Allowing issuers to opt-in or out throughout the Transaction Marking Pilot might encourage issuers to volunteer, but the issues discussed above related to voluntary pilots would be amplified if issuers were permitted to change their decision to opt-in or out while the Transaction Marking Pilot were ongoing.³⁵⁹

3. Implementation and Compliance Costs

Finally, the Division considered whether the Transaction Marking Pilot would provide a way to study Transaction Marking without incurring the full cost of the implementing Transaction Marking. Based on information from commenters and discussions with market participants, the Division concludes that this pilot could be more costly than full

³⁵⁶ Representatives of issuers indicated that they did not believe that any previous history of success with issuer volunteering would be applicable to this pilot because in past cases, such as with the Commission's voluntary program for issuers filing financial statements using eXtensible Business Reporting Language ("XBRL"), the benefits to volunteering were easy to assess. Discussion with issuers and issuers' representatives (Feb. 11-15, 2011). See also letter from AIMA. For information on the Commission's XBRL voluntary program, see *Office of Interactive Disclosure: History*, available at <http://www.sec.gov/spotlight/xbrl/oid-history.shtml>.

³⁵⁷ NIRI letter and survey data supplied by NIRI. Survey received 244 responses. NIRI members represent 2,000 publicly-traded companies with approximately \$5.4 trillion in stock market capitalization. Overstock.com, which offered its participation in any voluntary pilot program, noted the disadvantages of making participation in a pilot voluntary. See also letter from Overstock.com.

³⁵⁸ The letter from Professor James J. Angel recommends a limit on the number of pilot firms to ensure a good control sample.

³⁵⁹ The letter from NYSE notes this risk.

implementation.³⁶⁰ Market participants, including SIPs, SROs, broker-dealers, and options market makers indicated in discussions with the Division, that the Transaction Marking Pilot would require systems and programming changes at least as extensive as would be necessary for full implementation.³⁶¹ Moreover, the programming that would be needed to separate pilot from non-pilot issuers would be more complex and expensive than if all issuers were treated identically.³⁶² Introducing broker dealers also pointed out the costs to educate clients for a Transaction Marking Pilot.³⁶³ In sum, the cost of updating the order entry, order management, and transaction reporting systems would be at least as great for a pilot as for a full implementation, but a pilot would involve the added cost of maintaining systems and code both for stocks included in the pilot and for stocks not included in the pilot.³⁶⁴

In addition, SROs would incur ongoing costs to maintain and track changes to the list of participating issuers, and to transmit any changes to market participants and to the Consolidated Tape.³⁶⁵ Several exchanges stated in discussions with the Division that their overall process and compliance costs to implement the Transaction Marking Pilot might be comparable to those incurred in the Regulation SHO Pilot implementation.³⁶⁶ Introducing brokers and their representative groups indicated costly difficulties in monitoring a dynamic list of volunteer

³⁶⁰ See letter from FIF; and Data Explorers. Discussions with SROs (Jan. 13, 2011), introducing brokers (Jan. 24, 2011), and options market makers (Jan. 24, 2011). In addition, the SIFMA letter states that the additional marks would require very significant changes to a variety of systems “whether applied broadly or in connection with a limited pilot.”

³⁶¹ Discussions with SROs (Jan. 13, 2011), introducing brokers (Jan. 24, 2011), options market makers (Jan. 24, 2011).

³⁶² See letter from FIF. Discussions with SROs (Jan. 13, 2011), introducing brokers (Jan. 24, 2011), and options market makers (Jan. 24, 2011).

³⁶³ Discussion with introducing brokers (Jan. 24, 2011).

³⁶⁴ See letter from FIF.

³⁶⁵ The Division believes that listing exchanges are the parties best situated to keep track of the issuers included in the pilot sample. This is even more so in the case of a voluntary pilot because it would be efficient for issuers to notify their own listing exchange regarding their participation decisions, and for the exchanges to then notify others and implement the necessary changes.

³⁶⁶ Discussion with SROs (Jan. 13, 2011). The SROs did not elaborate on what those costs were.

issuers, and keeping investors and the market as a whole informed of changes in a pilot participant group.³⁶⁷

V. Real-Time Short Position Reporting

Consistent with the directive of Dodd-Frank Sections 417(a)(2)(A)(i) and (ii) of the Act, the Division also studied the feasibility, benefits, and costs of Real-Time Short Position Reporting, studying both public reporting and reporting to FINRA and the Commission only. For the purposes of this study, the Division construed “real time” to mean that short sellers would report their short positions immediately upon learning of a change in their short positions.³⁶⁸

The feasibility, benefits, and costs of Real-Time Short Position Reporting are in part a function of the definition of “short sale position.” The Division studied short position reporting as both: (a) reports of the short positions of particular investors (“identified positions”) or (b) reports of the aggregate of all investors’ positions in particular listed securities (“aggregated positions”). Identified position reporting would provide much more granular information than aggregated position reporting. The Division also considered “short position” defined as both an investor’s cash position (that is, its direct short position in the stock) and as an investor’s net economic exposure to the stock through all relevant financial instruments. Economic exposure would capture derivatives and other ways that investors take financial interests in an issuer. The short position of complex entities with multiple divisions, subsidiaries, and trading desks depends on the calculation or aggregation level specified: short positions can be aggregated and netted across the consolidated group as a whole (“entity level”) or netted and disclosed at the

³⁶⁷ Discussion with introducing brokers (Jan. 21, 2011).

³⁶⁸ The report contains a discussion of the feasibility of more immediate definitions of “real time” in Section V.A.7 *infra*.

level of the trading desk where decisions are made (“decision level”). The Division therefore studied the impact of the calculation level chosen for reporting requirements. The analysis below considers each of the possibilities. The general conclusions of the analysis hold throughout the range of possibilities.

The Division concludes that Real-Time Short Position Reporting is unlikely to be cost-effective when compared to the baseline. Like Transaction Marking, Real-Time Short Position Reporting might help to deter abusive short selling, but its effect on market quality is unclear. In particular, Real-Time Short Position Reporting may degrade market quality if the short positions disseminated identify the short sellers. However, also like Transaction Marking, Real-Time Short Position Reporting might include much of the same information that regulators could infer from the CAT.³⁶⁹ Unlike Transaction Marking, Real-Time Short Position Reporting could require an entirely new infrastructure, which could result in significant compliance costs.³⁷⁰ Moreover, as discussed below,³⁷¹ several forms of Real-Time Short Position Reporting would raise feasibility issues.³⁷²

Real-Time Short Position Reporting to the Commission and FINRA only—one of the two options specified in Section 417(a)(2)(A) of the Act—would not entail the potential costs to market quality that could result if the information is publicly available, but would entail the same implementation and compliance costs as public Real-Time Short Position Reporting. While detailed, identified Real-Time Short Position data could be useful in regulatory investigations and for generating market insights through research, regulators could obtain much of the same

³⁶⁹ See *supra* note 97.

³⁷⁰ See, e.g., letters from MFA and NYSE. See also discussion *infra* Section V.A.7. “Feasibility and Compliance Costs”).

³⁷¹ See *infra* Sections V.A.7 and V.B.6.

³⁷² See letters from MFA; SIFMA; AIMA; and CPIC.

information from the CAT data, if the Commission approves the NMS Plan.³⁷³ Although Real-Time Short Position data could be more-timely than CAT data,³⁷⁴ most of the regulatory uses of short position data would not require real-time access.

A. Real-Time Publicly-Identified Short Position Reporting

The Division first evaluated an interpretation under which short sellers would report publicly cash short positions that identified the short seller in real time. Specifically, identified Real-Time Short Position Reporting would provide market participants with the following information at the time that a short position changes: issuer, identity of the short seller, date and time the position changes, and short position in shares and dollar value. Such a regime would provide interested market participants with very detailed, current information, and may help to deter abusive short selling. Some market participants, however, may use such detailed information in ways that ultimately result in costs to market quality, and, for example, disclosure requirements that cause short sellers to reveal such detailed information may cause them to curtail their short selling activities. In addition, the Division doubts that the public availability of short sellers' identities would provide much, if any, benefit.

The Commission currently requires some identified position reporting, though not of short sales. For example, existing public non-real-time identified position reporting include the reporting of long positions required under Section 13 of the Exchange Act on Schedule 13D, Form 13F, and Schedule 13G,³⁷⁵ and the various identified short position reporting regimes

³⁷³ See *supra* note 226.

³⁷⁴ See Rule 613(e)(2), which provides for regulatory access to CAT.

³⁷⁵ See *infra* Section V.A, note 379, note 380, and note 381 for information on rules promulgated pursuant to Exchange Act Sections 13(d), 13(f) and 13(g).

recently adopted by several foreign jurisdictions in the wake of the financial crisis.³⁷⁶ Identified long position reporting is currently required by beneficial owners of more than 5% on Schedules 13D³⁷⁷ and 13G³⁷⁸ and on Form 13F by institutional investment managers that exercise investment discretion over \$100 million or more in certain U.S. publicly-traded equity securities.³⁷⁹ Short positions are not required to be reported and are not netted against long positions on Form 13F. Short positions are not required to be reported on Schedules 13G *per se*,³⁸⁰ but may be required incidentally on Schedule 13D under certain circumstances.³⁸¹

1. Information That Would Be Provided by Identified Real-Time Short Position Reporting

a. Comparison to Current Data

Publicly-identified Real-Time Short Position Reporting would provide new information that is not currently available, and would provide it to all market participants without delay. Real-Time Short Position Reporting would provide information on short selling positions and position changes within the trading day, which market participants cannot infer using currently available information. No currently available data source regularly provides the identities of short sellers to the Commission, SROs, or the public. The media, analysts, traders, researchers,

³⁷⁶ See *infra* Table C.1: Short Sale Position Reporting Regimes for examples of short position reporting in foreign jurisdictions.

³⁷⁷ See 17 CFR 13d-101.

³⁷⁸ See 17 CFR 13d-102.

³⁷⁹ See 17 CFR 240.13f-1.

³⁸⁰ In lieu of filing Schedule 13D, a beneficial owner holding more than 5% of the outstanding securities may report such ownership on an annual basis on the shorter Schedule 13G if the filer certifies that it did not acquire and does not hold the securities with the “purpose, or with the effect of, changing or influencing the control” of the issuer or in connection with or as a participant in any transaction having such purpose or effect. Short positions are not reported on Schedule 13G. See 17 CFR 240.13d-1 and 17CFR 240.13d-102.

³⁸¹ A sale of shares by a beneficial owner of more than 5% may be short for purposes of Regulation SHO Rule 200 because “beneficial ownership,” as determined under Rule 13d-3 may be the result of circumstances other than ownership as defined by Rule 200 of Regulation SHO. See SEC Div. of Corp. Fin., Compliance and Disclosure Interpretations, Exchange Act Sections 13(d) and 13(g) and Regulation 13D-G Beneficial Ownership Reporting, Question 104.01, available at <http://sec.gov/divisions/corpfm/guidance/reg13d-interp.htm> (although short sales by a Schedule 13D reporting person normally will not change that person's Rule 13d-3 beneficial ownership because such sales do not change the amount of shares over which the reporting person has voting or investment power, such sales may trigger a requirement to amend the Schedule 13D pursuant to Rule 13d-2).

issuers, and regulators could make use of such information. Issuers, in particular, may be interested in who shorts their stock, just as they may be interested in who holds their stock.³⁸² However the Division finds that few issuers take advantage of currently available short selling data.³⁸³ The identities of particular short sellers, when coupled with their reputations, could be informative for interpreting a particular change in their positions.³⁸⁴ Real-Time Short Position Reporting could also provide real-time information on market sentiment, though market observers likely can gauge changes in market-wide sentiment using aggregated short position data that does not include the identity of the short seller.

Under current requirements, the existing disclosure for holders of short positions is less detailed than existing disclosure for long positions.³⁸⁵ As noted above,³⁸⁶ several commenters called for a symmetric disclosure regime for long and short positions.³⁸⁷ The Division does not believe that asymmetry in reporting requirements is problematic *per se* if the concerns addressed by the disclosures are similarly asymmetric. For example, more stringent disclosure requirements for short sellers might make sense if short sellers could be more disruptive to the market than others could be. There is, however, little evidence to suggest that short sales have been more disruptive.³⁸⁸ Further, leveraged long positions are a mirror of short positions. Therefore,

³⁸² Discussion with issuers and issuers' representatives (Feb. 11-15, 2011).

³⁸³ See *supra* note 118 and referenced text.

³⁸⁴ For example, those examining short position data could view a change in a short selling position differently for a short seller with a reputation for making smart trading decisions than they would for a short seller who does not have such a reputation.

³⁸⁵ See *supra* Section V.A, note 379, note 380, and note 381 for information on rules promulgated pursuant to Exchange Act Sections 13(d), 13(f), and 13(g).

³⁸⁶ See *supra* Section III.D.

³⁸⁷ See *supra* note 200.

³⁸⁸ The Division looked at public data of Commission Enforcement actions to see whether manipulation by short sellers seems more common than other types of manipulation. There were 273 Commission enforcement actions from 2004 through 2010 that involved market manipulation. Of these, only 14% involved short-side manipulation while 86% did not involve short selling. While the Division recognizes the report from the Office of Inspector General (<http://www.sec-oig.gov/Reports/AuditsInspections/2009/450.pdf>), the Division does not believe that the dispersion in types of manipulation cases can be fully explained by any failure to further investigate "naked" short

requiring similar disclosure of leveraged long positions could address, in part, the expressed concerns from short sellers about fair treatment. On the other hand, asymmetry could also make sense if the objectives of the disclosure differed. The objectives of reporting long positions under Section 13 of the Exchange Act are related more to corporate control³⁸⁹ and investment manager position disclosure³⁹⁰ than to abusive trading. Therefore, the Division does not believe that short position reporting should necessarily be symmetric with long position reporting.

b. Comparison to CAT and other potential future data

If the Commission approves the CAT NMS Plan and the CAT is implemented, Real-Time Short Position Reporting would provide regulators with little new information but could provide them with timelier information relative to CAT. In particular, sometime after 8:00am on the day following the day on which the information was recorded,³⁹¹ regulators could use CAT transaction and account holder information to estimate short sale positions that changed the previous day.³⁹² Attempting to ascertain short positions from the CAT data would necessarily involve estimation and therefore could lack precision relative to Real-Time Short Position Reporting. By contrast, identified Real-Time Short Position Reporting would provide short sellers' actual positions in real time.

selling claims. Indeed, only 19.2% of manipulation cases involved short sales since 2009. *See also* letter from AIMA; and Engelberg, Reed, & Ringgenberg, *supra* note 67. (The ability of short sellers to predict future returns comes not from abuse but from skillfully interpreting public information). *But see* letters from Suzanne H Shatto; Jordan Gushurst; and IBC.

³⁸⁹ *See* Exchange Act Release No. 37403 (July 5, 1996), 1996 WL 37421 (July 3, 1996) (“The beneficial ownership reporting requirements embodied in Sections 13(d) and 13(g) of the Securities Exchange Act of 1934 . . . and the regulations adopted thereunder are intended to provide investors and the subject issuer with information about accumulations of securities that may have the potential to change or influence control of the issuer.”)

³⁹⁰ *See* Exchange Act Release No. 15461 (Jan. 5, 1979), 44 FR 3033 (Jan. 15, 1979) (“The reporting system required by Section 13(f) is intended to create in the Commission a central repository of historical and current data about the investment activities of institutional investment managers, in order to improve the body of factual data available and to facilitate consideration of the influence and impact of institutional investment managers on the securities markets and the public policy implications of that influence.”)

³⁹¹ *See supra* note 149.

³⁹² *See supra* note 234.

As stated above, the use of the CAT as a baseline necessarily separates the information available to regulators and the information available to the public.³⁹³ This analysis does not compare the CAT to the identified Real-Time Short Position Reporting to analyze the costs and benefits of the *public* availability of data from Real-Time Short Position Reporting. As noted above, the Commission deemed it premature to require that CAT data be provided to third parties.³⁹⁴

2. Limitations on Information from Real-Time Identified Short Position Reporting

As with Transaction Marking, practical issues of compliance, implementation, and size of the data set would limit the benefits of any information provided by identified Real-Time Short Position Reporting. In particular, as explained further below, real-time data could contain errors if reported manually, interpreting the position reports may not be straight forward, and analyzing the data may be impractical for many interested market participants.

The Division considered whether data errors could limit the value of the real-time short sale position information.³⁹⁵ Identified Real-Time Short Position Reporting could be subject to human error, particularly if short sellers manually report their positions. Further, if reports were disseminated upon receipt and without verification, as a “real-time” regime would appear to contemplate, erroneous identified short positions made public could adversely affect the market for a stock. In discussions with the Division, most market participants said that they would not be likely to trust identified Real-Time Short Position Reporting data, and would prefer verified data with a time delay, which they believe would likely be more accurate than real-time data.³⁹⁶

³⁹³ See *supra* Section III.B.1.

³⁹⁴ See *supra* notes 151 and 277.

³⁹⁵ See letter from AIMA.

³⁹⁶ Discussions with long and retail investors (Jan. 31, 2011), issuers and issuers’ representatives (Jan. 31, 2011).

The volume of short selling and covering transactions that would result in updated short positions, which the Division estimates could be about 24 million short position changes per day, would limit the utility of identified Real-Time Short Position Reporting.³⁹⁷ Most market participants, with the exception of sophisticated professional traders, would be unable to directly and thoroughly analyze data of this size.³⁹⁸ These market participants would either rely on data vendors to process and analyze identified Real-Time Short Position data into a more convenient form, or risk making inferior decisions based on unprocessed data. As with the transaction data above,³⁹⁹ vendors indicated interest in creating products based on these data but would be unlikely to produce such products without sufficient demand.⁴⁰⁰

Knowing in real time the identities of short sellers and their reputations could help market participants, regulators, and market observers interpret whether a change in a position was likely related to that short seller's assessment of the stock value. Nonetheless such interpretations could potentially be mistaken, given the many possible motivations for a short sale, the volume of the data, and the potential number of short sellers.⁴⁰¹

3. Detection of Abusive Short Selling

The Division considered whether identified Real-Time Short Position Reporting could benefit investors by further facilitating the detection and deterrence of abusive short selling.

³⁹⁷ The Division estimates the number of short position changes could be about 24 million per day, on average; this is twice the daily average of the number of short sale transactions during the month of November 2013. We double the number of short sale transactions because we assume there are as many "buy-to-cover" transactions as there are short sale transactions and both transaction types would result in updated short positions. November 2013 short sale transaction data is from the individual SROs (*See supra* note 25 for hyperlinks to the underlying data and *supra* Section III.A.3 for background information on the data. The estimate of short sale position changes should not be confused with the estimated number of transactions reported to the consolidated tape from Section IV.B which is 23 million.

³⁹⁸ *See* letters from MFA; Data Explorers; FIF; SIFMA; and STANY; *see also* discussions with long and retail investors, *supra* note 396.

³⁹⁹ *See supra* Section IV.B.3.

⁴⁰⁰ Discussion with data vendors (Feb. 4, 2011).

⁴⁰¹ *See* letters from MFA; Data Explorers; ICI; CPIC; SIFMA; AIMA and STANY. *But see* letters from Lee R. Donais and NIRI for dissenting views.

However, as with Transaction Marking, the Division believes the benefits from public monitoring could be modest as few non-regulators may actually monitor trading for potentially abusive short selling.

Identified Real-Time Short Position Reporting could enable regulators, market observers, and market participants to identify any short sellers holding large positions or exhibiting suspicious trading patterns, more efficiently than with current data sources.⁴⁰² Furthermore, the information provided by identified Real-Time Short Position Reporting could help identify short sellers that might have an incentive to depress stock prices by spreading false rumors.⁴⁰³

Identified Real-Time Short Position Reporting could help market participants, market observers, and regulators monitor for and help deter abusive short selling to an even greater extent than could be expected of Transaction Marking.⁴⁰⁴ In particular, identified Real-Time Short Position Reporting would provide more precise short position information than could be inferred from Transaction Marking, especially because it would identify the short sellers. In addition, an analysis of changes in identified Real-Time Short Positions could provide much of the information that Transaction Marking would provide.

The Division believes, however, that these benefits could be modest. As mentioned above,⁴⁰⁵ most market participants would not have the resources necessary to examine the data to monitor for fraud and would be unlikely to redirect resources away from business operations to monitor for abusive short selling. Therefore, such market participants, including issuers, would be unlikely to use Real-Time Short Position data to continuously monitor the market for abusive

⁴⁰² See letters from Lee R. Donais; Jeff Dickey; Don Herr; Professor James J. Angel and ICI (stating regulators would benefit from the collected data). *But see* letters from MFA; CPIC; and STANY (stating that regulators already have sufficient data).

⁴⁰³ See letter from IASBDA; Jeff Dickey; and NIRI.

⁴⁰⁴ See letters from Battle for Trademarks, Ltd.; Lee R. Donais; Robert Grothe; and NIRI.

⁴⁰⁵ See *supra* Section V.A.2.

short selling, although they might occasionally use the data to check on particular participants. Therefore, the Division expects that only regulators would be in a position to use identified Real-Time Short Position data to monitor the markets. However, regulators would also have access to data from the CAT, which would contain most of the same information as Real-Time Short Position Reporting but would be less timely and potentially less precise than identified Real-Time Short Position Reports.⁴⁰⁶ As noted above⁴⁰⁷ and below,⁴⁰⁸ most of the regulatory uses of short position data do not require real-time access to the data.

4. Market Quality

As with Transaction Marking, the Division believes that the net effect of identified Real-Time Short Position Reporting on market quality is unclear.⁴⁰⁹ However, because the Real-Time Short Position information in this regime would identify short sellers, some of the potential negative effects on market quality of Real-Time Short Position Reporting could be more severe than in Transaction Marking.

The most likely potential real-time users of identified Real-Time Short Position information might be similar to the potential real-time users of Transaction Marking data, namely HFTs. The Division also expects that some lower frequency traders and investors might make decisions based on observing the positions of particular identified short sellers, or short selling positions in the aggregate, even if they did not react in real time.

As noted above,⁴¹⁰ heavy short selling activity could indicate that a stock is overvalued. Investors could use information on the identity of short sellers in Real-Time Short Position

⁴⁰⁶ See *supra* Sections III.B., IV.A.2 and IV.C.

⁴⁰⁷ See discussion *supra* p. 72 and Section V.

⁴⁰⁸ See discussions *infra* pp. 108, Sections V.E.2, and V.E.3.

⁴⁰⁹ See letter from Overstock.com (additional data will improve price efficiency).

⁴¹⁰ See *supra* notes 66-67 and accompanying text.

Reporting along with information about the short seller's reputation and likely type of trading strategy to determine which positions were likely based on fundamental information. To the extent that HFTs or other traders could distinguish the more informed short sellers, they could immediately trade on this information and prices could incorporate information faster, representing an improvement in price efficiency.⁴¹¹

As with Transaction Marking, strategies that sought to copy fundamental short sellers or try to anticipate the trading decisions of fundamental, arbitrage, or technical short sellers could counteract the positive effect of Real-Time Short Position Reporting on price efficiency.⁴¹² In the case of identified Real-Time Short Position Reporting, this concern would be particularly acute because the identification could facilitate inferring and copying the trading strategies of particular investors, and could improve order anticipation strategies.⁴¹³ As a result, traders whose successful trading strategies rely on fundamental research and executing short strategies to capture the value of the research might curtail their activities under identified Real-Time Short Position Reporting.⁴¹⁴ Because identified Real-Time Short Position Reporting includes the identity of the investor, these effects could be even more harmful to price efficiency than with Transaction Marking.

The Division considered whether the precision and accuracy of identified Real-Time Short Position data as well as the ease with which it could be interpreted could also affect price efficiency. As noted above, identified Real-Time Short Position Reporting would improve the ability of market participants to model potentially informed short selling by examining changes

⁴¹¹ See letters from IAA; ICI; and John Bird.

⁴¹² See letters from SIFMA and Data Explorers, predicting that market participants would use the new information to the detriment of those required to provide it.

⁴¹³ See letter from ICI.

⁴¹⁴ See letters from MFA; Data Explorers; ICI; CPIC; SIFMA; AIMA; and STANY.

in large short positions. However, errors in the data and imprecision in models seeking to identify informed trading would make it more difficult to discern potentially informed short selling. Misidentification of informed trading might result in some temporary price dislocations and short-term volatility. However, this effect is likely to be lower than the same effect discussed above⁴¹⁵ for Transaction Marking because the identification of the position holder would make interpretation of the data more precise. On the other hand, the additional information provided by identified Real-Time Short Position Reporting might amplify the effects of less sophisticated traders who commenters fear would be likely to exhibit herd trading behavior around news events or during times of crisis.⁴¹⁶ During such times, according to commenters, a large number of less sophisticated traders, who otherwise would pay little attention to Real-Time Short Position data, might pay more attention to the data than normal and misinterpret the data in a manner consistent with other less sophisticated traders, resulting in correlated trading.⁴¹⁷ The Division believes, however, that these risks are low. As discussed in in the context of Transaction Marking in Section IV.C.2.a, the circumstances in which traders who do not learn how to interpret information from identified Real-Time Short Position Reporting will make correlated poor trading decisions are likely to be rare. Further, if these situations occur, those who can correctly interpret the information have the incentive to trade in a way that would dampen any price effects.

⁴¹⁵ See *supra* Section IV.B.2.

⁴¹⁶ See letters from Overstock.com; NYSE; MFA; CPIC; Data Explorers; and STANY.

⁴¹⁷ See letters from MFA; Data Explorers; ICI; CPIC; and AIMA.

The ability to observe identified positions and their dynamics in real time might also facilitate bear raids and short squeezes, which harm price efficiency.⁴¹⁸ However, the ability of regulators to monitor for such abuses would likely offset this effect.

In the Division's discussions with short sellers and in public comments on Form SH, short sellers expressed concerns that Real-Time Short Position Reporting could potentially subject them to issuer retaliation.⁴¹⁹ Short sellers expressed concern that issuers might take action against individual short sellers through lawsuits and by forwarding information to regulators in attempts to precipitate regulatory investigations, through claims in the media, or by applying pressure on the shorting firm through business relationships that may exist outside of trading.⁴²⁰ Short sellers also indicated that identified Real-Time Short Position Reporting would better enable issuers improperly to orchestrate a "short squeeze" of investors who have a short position.⁴²¹ For example, short sellers expressed fears that issuers would coordinate illegally with existing shareholders to terminate and recall outstanding securities loans. Unless a "substitute" lender could be found, such termination and recall by the securities lenders could result in the securities borrowers having to return the borrowed securities, which, in turn, could require the short sellers to close out their short positions before they are ready to do so.⁴²² Short sellers also told the Division that issuers could refuse to meet with short sellers or not extend to them

⁴¹⁸ See letters from MFA; Data Explorers; CPIC; AIMA; and STANY.

⁴¹⁹ Discussion with short sellers (January 5, 2011). See letters from MFA; CPIC; AIMA; and STANY. This concern is voiced in comments submitted in response to the Commission's adoption of the interim temporary final rule regarding disclosure of short sales and short positions by institutional investment managers discussed in *supra* Section III.A.2 and *supra* note 108. See also comments on Rule 10a3-T from Richard B. Zabel, Partner, Akin Gump Strauss Hauer Feld LLP (Dec. 16, 2008); Stuart J. Kaswell, Executive Vice President & General Counsel, Managed Funds Association (Dec. 15, 2008); Ari Burstein, Senior Counsel, Investment Company Institute (Dec. 16, 2008); James Chanos, Chairman, Coalition of Private Investment Companies (Dec. 16, 2008); and Patricia A. Poglinco and Robert B. Van Grover, Seward and Kissel LLP (Dec. 16, 2008).

⁴²⁰ See letter from STANY.

⁴²¹ The Division notes that these actions may violate the Exchange Act, including, but not limited to, Exchange Act Section 10(b) and Rule 10b-5.

⁴²² Discussion with short sellers (Jan. 5, 2011).

invitations to “investor days” at which issuers discuss their public disclosures with investors, thereby creating an informational asymmetry between short sellers and long position holders.⁴²³ One study suggests that issuers’ actions against short sellers may harm price efficiency as issuers taking such actions tend to underperform peers in subsequent years, suggesting overvaluation.⁴²⁴ To the extent that identified short sale position reporting facilitates such activity by issuers, an identified Real-Time Short Position Reporting regime could exacerbate this effect on price efficiency.

Identified Real-Time Short Positions could make current information barriers designed to keep affiliates from communicating material nonpublic information⁴²⁵ less effective, increasing the potential for conflicts of interest in large financial institutions. For example, current or potential investment banking clients would likely be displeased with an investment banking firm that was selling short their stock. As a result, the investment banking arm of a large financial institution might, despite such barriers, attempt to exert pressure on the asset management, market making, or proprietary trading arms of a large financial institution to refrain from selling short shares of current or potential investment banking clients.

To the extent that opportunistic traders were able to analyze the data and identify market makers or other liquidity providers in identified Real-Time Short Position data, they would be able to anticipate when market makers would need to buy, thus enabling them to trade profitably at the expense of these liquidity providers.⁴²⁶ Any such activity may tend to reduce liquidity

⁴²³ See letters from MFA and AIMA.

⁴²⁴ See Owen A. Lamont, *Go Down Fighting: Short Seller vs. Firms* (Yale Sch. of Mgmt., Yale ICF Working Paper No. 04-20, July 14, 2004), available at <http://ssrn.com/abstract=566901>.

⁴²⁵ See, e.g., Exchange Act Section 15(g).

⁴²⁶ Discussion with equity market makers (Jan. 18, 2011).

because market makers and other liquidity providers might widen spreads in an attempt to offset the risks of having opportunistic traders anticipate their need to cover their short positions.

5. Capital Formation and Corporate Decisions

As with Transaction Marking, the effect of identified Real-Time Short Position Reporting on capital formation and corporate decisions is unclear. Some commenters argued that disclosure of identified Real-Time Short Positions could benefit capital formation through its effect on investor confidence and participation.⁴²⁷ While some commenters argue that an improved capability for monitoring by market participants, market observers, and regulators could promote investor confidence,⁴²⁸ this was not the unanimous view of commenters.⁴²⁹ Identified Real-Time Short Positions could also potentially promote capital formation by allowing corporate issuers to consider such information in their decisions regarding raising capital. On the other hand, identified Real-Time Short Position Reporting could harm capital formation by reducing price efficiency and liquidity.⁴³⁰

As with Transaction Marking, identified Real-Time Short Position Reporting could potentially impact capital formation during follow-on or convertible offerings.⁴³¹ Commenters noted that, because in their view identified Real-Time Short Position Reporting could potentially increase the risk and cost of short selling, it would tend to discourage hedging strategies used for risk management.⁴³² If identified Real-Time Short Position Reporting made short selling more

⁴²⁷ See letters from MFA; SIFMA; and Professor James J. Angel.

⁴²⁸ See letters from NIRI and Jeff Dickey.

⁴²⁹ See letters from ICI (citing possible harm to confidence from opportunities for abuse created by additional disclosures); MFA (citing possible investor confusion); STANY (favoring investor education to increase investor trust); and Suzanne H. Shatto (predicting a crisis of confidence when the extent of short selling is better known).

⁴³⁰ See letters from CPIC; MFA; SIFMA; AIMA; and Data Explorers.

⁴³¹ See *supra* Section IV.C.3.

⁴³² See letters from MFA; Data Explorers; and CPIC.

costly for these investors, they may require higher expected returns from convertible offerings, resulting in a higher cost of capital, potentially harming capital formation.⁴³³

Finally, identified Real-Time Short Position Reporting might also adversely affect investors in mutual funds and pension funds. To the extent that such reports reduced the amount of short selling, commenters stated that entities such as mutual funds and pension funds (and thus their investors) that engage in securities lending might receive less revenue.⁴³⁴

6. Research and Rulemaking Benefits

Identified Real-Time Short Position Reporting could give market participants, market observers (especially academic researchers), and regulators the ability to obtain insight into markets that could not be obtained with currently available data.⁴³⁵ For instance, research generated by any such data could shed light on how intraday short positions differed from end of day positions and the duration of short position holdings. Researchers and regulators could also investigate how short sellers supply liquidity during the day, and how that liquidity varied with market conditions. Specifically, identified Real-Time Short Position data could help researchers and regulators learn how quotes varied with the level of market makers' short positions and the role of shorting in liquidity provision in scenarios such as the events of May 6, 2010.⁴³⁶ Such research could inform regulatory policy, oversight of market professionals, and enforcement activities. Research of this kind would not be done in real time, however, so while identified Real-Time Short Position Reporting likely would allow for informative study, some limited delay in reporting would not significantly reduce this benefit.

⁴³³ See *supra* note 308.

⁴³⁴ See letters from AIMA; ICI; Data Explorers; and SIFMA.

⁴³⁵ See letters from Norman L. Slesman; IASBDA; and Professor James J. Angel.

⁴³⁶ See CFTC AND SEC STAFF, FINDINGS REGARDING THE MARKET EVENTS OF MAY 6, 2010 (September 30, 2010), available at <http://www.sec.gov/news/studies/2010/marketevents-report.pdf>.

7. Feasibility and Compliance Costs

The implementation costs of Real-Time Short Position Reporting would come from two sources. First, a responsible party, either a short seller or broker dealer, would incur costs to set up systems to report short sale positions. Second, market participants would incur the costs of setting up a system to collect and disseminate the position reports. According to market participants, new and potentially expensive systems may be necessary to implement identified Real-Time Short Position Reporting.⁴³⁷ Existing systems, even if altered, are not capable of collecting and disseminating reports directly from short sellers and of doing so in real time.⁴³⁸ Separate from the costs to implement Real-Time Short Position Reporting, commenters noted that ongoing costs to short sellers and others would also be significant.⁴³⁹

a. Reporting Real-Time Short Positions

Short sellers themselves often would be in the best position to report their short sale positions in real time, unless market intermediaries have immediate access to those positions.⁴⁴⁰ Commission staff has noted that hedge funds and other institutional investors typically use clearing brokers known as “prime brokers” that offer them multiple financial services, including financing.⁴⁴¹ According to commenters, prime brokers would not be in a position to report their clients’ short positions in real time because hedge funds and other institutions may book their positions with more than one prime broker, and in any event prime brokers typically do not know

⁴³⁷ See letters from NYSE; FIF; and SIFMA.

⁴³⁸ See letters from FIF; MFA; and AIMA. Discussion with SROs (Jan. 13, 2011).

⁴³⁹ See letters from MFA; CPIC; and AIMA.

⁴⁴⁰ One generally consistent element across the foreign regimes is that the positions’ holders report directly either to the public or to the regulators of the jurisdiction. This lends support to the notion that it is feasible for short sellers to report their own positions. However, short position reporting is not done in real time in any foreign jurisdiction. See Table C.1: Short Sale Position Reporting Regimes.

⁴⁴¹ See Prime Broker Committee, SEC No-Action Letter, 1994 WL 808441 (Jan. 25, 1994), available at <http://www.sec.gov/divisions/marketreg/mr-noaction/pbroker012594-out.pdf>.

the positions their clients hold with them until the end of the trading day.⁴⁴² Introducing brokers and executing brokers would likewise be unable to report identified short sale positions for their clients in real time, except for retail clients.⁴⁴³ Institutional short sellers typically use many introducing and executing brokers, who individually may have little knowledge of their clients' overall short or long position.⁴⁴⁴ The Division understands that exchanges have only transaction data, rather than position data, and thus would not be able to report identified short sale positions. Therefore, Real-Time Short Position Reporting likely would have to place the reporting burden on the short sellers themselves as opposed to broker-dealers or exchanges, except when broker-dealers know their clients' positions in real time (i.e., when the client does not use separate prime and executing brokers). Comprehensive reporting of identified short sale positions in U.S. listed stocks would also require reporting from non-U.S. short sellers of their short positions in U.S. listed stocks.

Commenters noted that the costs to short sellers of reporting their short positions in real time could be substantial.⁴⁴⁵ In particular, not all short sellers have the infrastructure necessary to report positions in real time.⁴⁴⁶ As such, several commenters questioned the feasibility of Real-Time Short Position Reporting⁴⁴⁷ and/or indicated that Real-Time Short Position Reporting

⁴⁴² See letters from Data Explorers; FIF; and SIFMA. The letter from FIF also notes that prime brokers and custodians would probably need at least until the end of the day to report positions. In our discussion with prime brokers (Feb. 7, 2011), they indicated that they typically get information on trades overnight and reconcile that information with positions the next day.

⁴⁴³ See letter from SIFMA. Discussion with introducing brokers (Jan. 21, 2011).

⁴⁴⁴ In discussions with introducing brokers (Jan. 21, 2011) and prime brokers and clearing firms (Feb. 7, 2011), participants indicated that large investors often keep their positions at several prime brokers that offer clearing and other custody services, but trade through many other brokers. Prime brokers also indicated that they do not know when they are the sole prime broker for a client. See also letter from FIF.

⁴⁴⁵ See, e.g., letters from FIF; MFA; and SIFMA.

⁴⁴⁶ See letters from CIPC; FIF; and SIFMA.

⁴⁴⁷ See letters from FIF; MFA; and AIMA. FIF stated that not all short sellers would have the means to report positions themselves.

would require extensive new infrastructure and systems.⁴⁴⁸ Commenters also suggested comparing the costs to those of Form SH.⁴⁴⁹ For example, SIFMA stated that Real-Time Short Position Reporting would be much more significant and burdensome than Form SH and provided an example of costs of Form SH for one firm - that firm employed 10-20 individuals to work around the clock for two to three weeks to develop and implement a reporting process.⁴⁵⁰

Self-reporting of short sale positions by short sellers also raises feasibility issues for any definitions of “real time” that require reporting sooner than immediately upon learning of a change in a short position. Specifically, the Division considered whether short sellers could report their positions at the time of trade execution. However, short sellers may not necessarily receive confirmation of executions in real time. For example, when a broker combines the outstanding orders of multiple clients into a single order, those clients do not know right away how much of their order has executed; the client learns this only after the broker has allocated the execution among its clients and sent out trade confirmations.⁴⁵¹ Defining “real time” to mean at execution time might require that all allocations and trade confirmations be sent to customers at execution time. According to commenters, this would require executing brokers to make costly changes to their systems to allocate and send out trade confirmations at execution, which is inconsistent with the end-of-day allocation batch processing utilized in the securities markets today.⁴⁵² Therefore, without changing the allocation process, feasible Real-Time Short Position Reporting may mean end-of-day or next day reporting for some short sellers.

⁴⁴⁸ See letters from FIF; MFA; and CIPC.

⁴⁴⁹ See, e.g., letters from AIMA; MFA; and SIFMA.

⁴⁵⁰ *Id.*

⁴⁵¹ This occurs when trades for various clients are grouped and executed simultaneously.

⁴⁵² See letters from SIFMA and FIF, which indicate that the current practice is cost-effective relative to alternatives.

The Division also considered whether real time should refer to the time when short sellers submit an order to trade. Short sellers base their current “long” and “short” order marks on their net stock position at the time they place their order.⁴⁵³ This position is calculated based, in part, on executed transactions, as well as unexecuted orders. However, many orders never execute. Therefore, the Division believes that short positions based on unexecuted orders would be less indicative of market sentiment and would lead to many more position changes during the day than short positions based on executions.

b. Collecting and Disseminating Real-Time Short Positions

As noted above, market participants would incur costs not just in setting up the infrastructure to report positions but also in setting up the infrastructure to collect and disseminate positions in real time. The Division considered the feasibility and costs of altering current systems, such as FINRA’s RFA system or EDGAR. The Division concludes that it is not feasible to alter these systems to accommodate Real-Time Short Position Reporting. Commenters confirmed this conclusion and indicated that creating a new system to collect and disseminate short positions in real time would entail significant expense.⁴⁵⁴

Based on discussions with FINRA, the Division understands that the current short interest reporting system, FINRA’s RFA system described above,⁴⁵⁵ cannot be adapted to collect short position reports in real time.⁴⁵⁶ The main problem stems from the current RFA system’s reliance on clearing data and clearing firms, which, as noted above,⁴⁵⁷ currently do not have the

⁴⁵³ See 17 CFR 242.200.

⁴⁵⁴ See letters from NYSE; FIF; and SIFMA.

⁴⁵⁵ See *supra* Section III.A.1.

⁴⁵⁶ Discussion with SROs (January 13, 2011).

⁴⁵⁷ See *supra* notes 440-444 and accompanying text.

information necessary to produce the identified Real-Time Short Position reports.⁴⁵⁸ Instead, clearing firms receive aggregate information from their correspondent broker-dealers.⁴⁵⁹

One alternative would be to use the collection infrastructure that is currently used for long position reporting pursuant to Sections 13(d), 13(f), and 13(g) of the Exchange Act.⁴⁶⁰ This is accomplished by direct reports to the Commission's EDGAR system.⁴⁶¹ EDGAR could collect reports directly from short sellers or broker dealers and disseminate them publicly. However, according to our technology staff, the use of EDGAR for identified Real-Time Short Position Reporting under current technology would require approximately a doubling of the bandwidth and would require a reporting delay.⁴⁶² The reporting delay means real-time dissemination would not be feasible at this time if current EDGAR technology collected the reports.

Aside from FINRA's RFA system or EDGAR, the Division is not aware of other current infrastructures relevant to the collection of identified Real-Time Short Position Reporting data. The Division also considered the costs and feasibility of creating a new collection and dissemination infrastructure for Real-Time Short Position Reporting. The Division, along with some commenters, believes that a new system could be more feasible than adapting a current infrastructure,⁴⁶³ though commenters indicated that building a new infrastructure would entail

⁴⁵⁸ Discussion with SROs (January 13, 2011).

⁴⁵⁹ *Id.*

⁴⁶⁰ *See supra* Section V.A, note 379, note 380, and note 381 for information on rules promulgated pursuant to Exchange Act Sections 13(d), 13(f), and 13(g).

⁴⁶¹ *See supra* note 8.

⁴⁶² If EDGAR were to be used to collect and disseminate short position data, there would be an increase of 103 KB of data coming in to EDGAR per second on top of the current 121 KB of data per second. This computation assumes 24 million short position messages per day (*see supra* note 397) spread equally throughout the six and a half hour trading day with 100 bytes per short sale message.

⁴⁶³ *See e.g.*, letters from NYSE; FIF; and SIFMA.

significant expense.⁴⁶⁴ SIFMA states that systems for collecting short position reports would require “significant infrastructure changes and substantial development.”

c. Ongoing Costs

Short sellers also would incur significant ongoing compliance costs to gather and transmit real-time position reports, regardless of the infrastructure set up to collect the data.⁴⁶⁵ These costs would increase as a function of any permitted technological latency,⁴⁶⁶ while still being consistent with the mandate for reporting in real time. According to our staff, if real time were defined to take into account the minimum latency that technology currently allows, then the system would need dedicated fiber-optic lines throughout to achieve that minimum latency. Short sellers would incur costs to maintain and monitor the necessary infrastructure. One vendor estimated that a single short seller could incur costs of thousands of dollars per month solely to lease the fiber optic lines necessary to report its short sale positions in real time to whatever entity collected it.⁴⁶⁷

Some commenters noted that estimates of the costs of compliance with weekly reporting on Form SH⁴⁶⁸ or with reporting under foreign regimes⁴⁶⁹ provide references for Real-Time Short Position Reporting. In fact, commenters noted that the real-time nature of Real-Time Short Position Reporting would involve significantly more ongoing costs than Form SH.⁴⁷⁰

Commenters also suggested that weekly or quarterly public short position reporting would yield

⁴⁶⁴ See letters from FIF; and SIFMA.

⁴⁶⁵ See letters from CPIC.

⁴⁶⁶ See letter from NYSE.

⁴⁶⁷ This estimate comes from staff conversations with a vendor outside of the context of this report.

⁴⁶⁸ See letters from AIMA; CPIC; IAA; and SIFMA.

⁴⁶⁹ See letter from AIMA. Citing an FSA survey, AIMA provided figures that firms expected to incur ongoing costs of the UK’s short position reporting of US\$3.9 million.

⁴⁷⁰ See letters from CPIC; IAA; and SIFMA.

many of the benefits of the identified Real-Time Short Position Reporting with much lower costs.⁴⁷¹

8. Reporting Thresholds

Some commenters believed that a size threshold level of some sort is implicit in the idea of identified Real-Time Short Position Reporting.⁴⁷² Absent a reporting threshold, the costs of Real-Time Short Position Reporting would be particularly burdensome for low volume short sellers.⁴⁷³ Several foreign jurisdictions have implemented, or have proposed to implement, short position reporting regimes requiring disclosure only of short positions greater than some specified threshold.⁴⁷⁴ Former Exchange Act Rule 10a3-T, which required short position reporting on Form SH, had a reporting threshold. It required reporting by large institutional managers only of positions exceeding 0.25% of the class of shares or that had a fair market value of \$1 million or more.⁴⁷⁵

Any threshold level chosen would involve a tradeoff between reduced compliance costs and reduced benefits, to the extent that some short sale positions would not be reported. Higher thresholds would significantly reduce the cost of reporting for short sellers,⁴⁷⁶ because market participants that, as a matter of investment policy, never intentionally exceed the thresholds would not have to create and maintain a reporting infrastructure. Higher thresholds could reduce benefits, however. Based on conversations with short sellers, setting a threshold for an individual position at 5%, which would make the short position reporting requirements symmetric with long

⁴⁷¹ See letters from NYSE; and IAA.

⁴⁷² See letters from NYSE; AIMA; and Data Explorers.

⁴⁷³ See letters from MFA; AIMA; and SIFMA. *But see* letter from FIF that states that a threshold would not reduce the implementation effort for firms because of the requirement for firms to calculate positions to determine if they reach a threshold.

⁴⁷⁴ See *infra* Table C.1: Short Sale Position Reporting Regimes *supra* for a list of foreign jurisdictions requiring disclosure above certain thresholds. See also *supra* notes 158-184.

⁴⁷⁵ See *supra* notes 108-109 and accompanying text.

⁴⁷⁶ See letter from Data Explorers.

position reporting, would require almost no short position reporting because short positions of this size are extremely rare.⁴⁷⁷ If this is correct, a 5% reporting threshold would eliminate nearly all costs, and nearly all benefits as well.

The choice of a threshold well below 5% but high enough to exclude only small retail short sale positions would significantly reduce the number of short sale positions reported while having only a small effect on the total number of reported shares shorted. The experience of foreign regulators who have implemented short position reporting regimes with various thresholds could prove instructive in quantifying the tradeoff between reduced reporting costs and potentially reduced benefits of short position reporting.⁴⁷⁸ While a threshold set too low would capture many short sellers unnecessarily and impose costs without providing much benefit, a threshold set too high might incentivize market participants to develop a trading strategy designed to avoid reporting their short sale positions. As a result, meaningful short sale positions of interest to other market participants, market observers, or regulators⁴⁷⁹ might go unreported. A threshold set at a level where these short positions could “hide” would significantly reduce the benefits of short position reporting.

B. Aggregated, Non-identified, Real-Time Short Position Reporting

Aggregated, non-identified Real-Time Short Position Reporting could be viewed simply as a real-time version of the current short interest regime. Unlike an identified regime discussed

⁴⁷⁷ Discussions with short sellers (Jan. 5, 2011). *But see* letter from Data Explorers which provides numbers showing 27% of stocks have short interest greater than 5%, which they interpret to mean that many short positions would exceed a 5% threshold. The 5% threshold in the comment letter, however, is on an aggregated level in the stock as opposed to an individual position. Therefore, the Data Explorers letter does not provide evidence contrary to the Division’s conclusion.

⁴⁷⁸ Discussions with international regulators (Feb. 15 - Mar. 17, 2011).

⁴⁷⁹ *See* letters from Jordan Gushurst and AIMA.

above,⁴⁸⁰ an aggregated regime would reveal to the public only the total of outstanding short positions for each stock. Issuers and other market participants would be unable to learn the identities or positions of particular short sellers from these data.

Because short positions are a function of shorting and covering transactions, any information disclosed to the public through aggregated short position reports would be, in some respects, equivalent to the information disclosed under Transaction Marking discussed in Section IV. One difference from Transaction Marking would be the lack of a separation of information about market maker shorts from other short sales.⁴⁸¹ Information on transactions could be inferred from aggregated Real-Time Short Position Reporting because a rise in the total short position in a stock would imply short sale transactions had been executed, while a decrease in the aggregated short position in a stock would mean that “buy-to-cover” transactions had occurred. However, information on the total short positions would be more difficult to extrapolate from Transaction Marking because of the difficulties in interpreting transaction mark data discussed above.⁴⁸²

Because the information content for aggregated Real-Time Short Position Reporting is similar to Transaction Marking and the required infrastructure necessary for aggregated Real-Time Short Position Reporting is similar to identified Real-Time Short Position Reporting, the feasibility, benefits, and costs of aggregated real-time position reporting would be comparable to these previously discussed regimes. As noted above,⁴⁸³ the current short interest infrastructure could not be adapted, without significant investment, for real-time reporting and short sellers would be the entities most able feasibly to report their short sale positions in real time. Therefore,

⁴⁸⁰ See *supra* Section V.A.

⁴⁸¹ See also *infra* note 533.

⁴⁸² See *supra* IV.B.2.

⁴⁸³ See *supra* Section V.A.7.

a feasible means to implement an aggregated Real-Time Short Position Reporting regime would involve short sellers reporting their short sale positions to an entity that then aggregated and disseminated those individual positions.⁴⁸⁴ In such a system, regulators could have access to the individual identified short sale positions while the public would see only the total of all short sale positions in each stock.

The Division believes that the benefits of the aggregated Real-Time Short Position Reporting are unlikely to be substantial. As discussed below, the data could help investors gauge market sentiment in real time, but would provide little benefit in detecting and deterring short sale abuse. Aggregated Real-Time Short Position Reporting would also have unclear effects on market quality and capital formation, though some potential effects, such as reduced liquidity resulting from increased costs to market makers, could be lower than for identified Real-Time Short Position Reporting. The implementation and compliance costs of aggregated Real-Time Short Position Reporting, however, would be at least as great as those of identified Real-Time Short Position Reporting.

1. Limitations on Information Provided by Aggregated Short Sale Positions

Aggregated Real-Time Short Position Reporting would have many of the same limitations on the value of the information provided as the identified Real-Time Short Position Reporting and Transaction Marking discussed above.⁴⁸⁵ As in those cases, the data would be large and cumbersome to work with (as many changes in positions as data from identified Real-Time Short Position Reporting),⁴⁸⁶ likely limiting its use to market participants who could

⁴⁸⁴ The letters from Data Explorers and FIF support the feasibility of this form of reporting.

⁴⁸⁵ See *supra* Sections V.A. and IV.B.

⁴⁸⁶ In particular, if the data contains a position change, any time a short seller either sells short or buys to cover, the aggregated real-time short position data would contain as many observed position changes as would identified real-time short position data. See *supra* note 397.

directly analyze the data; information drawn from the data would likely also be relatively imprecise. If short sellers were manually to enter their real-time short positions, data errors would also be a concern for aggregated real-time short sale positions.

2. Detection of Abuse

As long as the reporting mechanisms for Aggregated Real-Time Short Position Reporting were similar to that of a regime that identified short sellers, regulators' ability to detect fraud and abuse using the short position reports in the aggregated regime likely would be the same as the regulators' ability in the identified regime. The lack of detail in the information provided to the public in aggregated Real-Time Short Position Reporting would be less useful in assisting the public in detecting fraud and abuse than would the information provided by either identified Real-Time Short Position Reporting or Transaction Marking. As in identified Real-Time Short Position Reporting and Transaction Marking, however, the main detection and deterrent functions of the regimes likely would come from regulatory use, as opposed to public use, because of the public's limited ability to process such a large volume of data for this purpose. As in identified Real-Time Short Reporting, regulators would have access to almost the same information in CAT data, if the Commission approves the NMS Plan. Therefore, aggregated Real-Time Short Position Reporting could help deter short selling abuse about as well as identified Real-Time Short Position Reporting.

3. Market Quality

As with the two regimes discussed above,⁴⁸⁷ aggregated Real-Time Short Position Reporting could have an unclear effect on market quality. However, some of the potential effects, both positive and negative, on price efficiency and liquidity would be lower for

⁴⁸⁷ See *supra* Sections IV.C.2 and V.A.4.

aggregated Real-Time Short Position Reporting than for identified Real-Time Short Position Reporting.

The Division considered whether aggregated Real-Time Short Position Reporting could improve price efficiency.⁴⁸⁸ The aggregation of short positions across short sellers would mean that aggregated Real-Time Short Position Reporting would not benefit price efficiency as much as identified Real-Time Short Position Reporting would. In particular, traders would not be able to use the reputation of the short seller to model whether a particular real-time short sale position change is likely to be profitable. Therefore, the Division believes that such models will be less precise than they would be with identified Real-Time Short Position Reporting.

As with both Transaction Marking⁴⁸⁹ and identified Real-Time Short Position Reporting,⁴⁹⁰ the potential for public information to promote price efficiency would likely be mitigated in whole or in part. The potential for reduced incentives for fundamental research, arbitrage, and technical trading would not be as acute in aggregated Real-Time Short Position Reporting as in an identified Real-Time Short Position Reporting regime because trading activities would be harder to detect, copy, and anticipate from aggregated data. Aggregated real-time short sale positions could harm price efficiency by facilitating abusive trading such as coordinated bear raids and short squeezes.⁴⁹¹ However, the Division believes that coordinating such abusive trading would be harder under aggregated Real-Time Short Position Reporting than it would be under identified Real-Time Short Position Reporting because the ability of abusive traders to monitor fellow coordinators would be less precise. On the other hand, as in

⁴⁸⁸ Commenters discussed this issue as well. *See, e.g.*, letter from John Bird.

⁴⁸⁹ *See supra* Section IV.C.2.

⁴⁹⁰ *See supra* Section V.A.4.

⁴⁹¹ *See supra* Section IV.C.2 for a discussion of how the Transaction Marking regime might facilitate short selling abuses and *supra* Section V.A.4 for a discussion of how the ability to observe identified positions and their dynamics might facilitate bear raids and short squeezes.

Transaction Marking, less sophisticated investors may not analyze aggregated Real-Time Short Position data thoroughly enough to use it to make wise trading decisions. The Division notes that this risk could be as slight for aggregated Real-Time Short Position Reporting as it is for identified Real-Time Short Position Reporting or Transaction Marking.⁴⁹² In particular, the volume of data would be as large as the volume of identified Real-Time Short Position data.⁴⁹³

Any adverse effect on liquidity resulting from aggregated Real-Time Short Position Reporting is likely to be less severe than that of either identified Real-Time Short Position Reporting or Transaction Marking, both of which would risk increasing the cost of market making by exposing market makers to opportunistic traders. In an aggregated Real-Time Short Position Reporting regime, market makers would not face this same risk because the regime would not identify individual market makers.

4. Capital Formation

The effect of aggregated Real-Time Short Position Reporting on capital formation is unclear. As explained in the above section,⁴⁹⁴ aggregated Real-Time Short Position Reporting could help deter abusive short selling about as much as identified Real-Time Short Position Reporting because regulators' ability to detect fraud and abuse using the short position reports in the aggregated regime would be the same as the regulators' ability in the identified regime. Therefore, the modest investor confidence benefits, and related capital formation improvements, that would be attributed to an identified short sale position disclosure regime would also ensue from an aggregated short sale position regime. However, because the information in CAT, if the

⁴⁹² See letter from AIMA (aggregated unidentified disclosure is still subject to misinterpretation). *But see* letter from Karen Polege (a retail investor remarks that timely information on short interest would help her make better investment decisions).

⁴⁹³ See *supra* Section V.A.2.

⁴⁹⁴ See *supra* Section V.B.2.

Commission approves the NMS Plan, would be similar to that in aggregated Real-Time Short Position Reporting, these benefits would be limited. On the other hand, aggregated Real-Time Short Position Reporting could hurt capital formation if it harmed price efficiency and liquidity, made hedging more difficult, or reduced the securities lending revenue of mutual funds and pension funds.

5. Research and Rulemaking

The Division believes that aggregated Real-Time Short Position Reporting would offer opportunities to improve the quality of academic studies on short selling relative to studies based on the less timely data available today, but would be less valuable than the data from identified Real-Time Short Position Reporting. While regulators could have access to identified positions under the aggregated Real-Time Short Position Reporting, academic researchers would not. Of course, the ability for academic researchers to identify short sellers would facilitate research on certain questions that aggregated Real-Time Short Position Reporting would not. For example, studying the variation in the profitability of short selling strategies across short sellers requires identification of particular short sellers and could only be conducted under identified Real-Time Short Position Reporting.

6. Feasibility and Compliance Costs

Aggregated Real-Time Short Position Reporting would involve implementation and compliance costs as high as or higher than the cost of identified Real-Time Short Position Reporting. Aggregated Real-Time Short Position Reporting would involve the reporting and collection of identified short positions, plus the additional step of aggregating the data before disseminating it.⁴⁹⁵

⁴⁹⁵ See *supra* note 484 and accompanying text.

7. Thresholds

While a threshold could reduce the cost of reporting aggregated short sale positions, as well as the frequency of position updates and the size of the data, it would necessarily result in a total short position that is less than the sum of all individual short positions. This lesser figure would potentially not be perfectly correlated with the actual aggregated short sale position if no reporting threshold had been used. As with an identified regime, any threshold used in an aggregated regime would need to balance these competing considerations.

C. Definition of Short Sale Positions

Whether Real-Time Short Position Reporting defines Short Position as the position in the stock only or as the economic exposure to the stock⁴⁹⁶ would affect the costs and benefits discussed above. The key term “short sale positions” in Section 417(a)(2) of the Act is not defined in the statute, and the term “short sale position” has various definitions across U.S. and foreign jurisdictions.⁴⁹⁷ A “short position” under former Exchange Act Rule 10a3-T⁴⁹⁸ and FINRA Rule 4560⁴⁹⁹ is gross short sale positions in the stock itself — so-called “cash positions” — and does not include other positions that might alter the economic exposure of the combined

⁴⁹⁶ Economic exposure refers to any financial interest in a stock, both positively and negatively related to the value of the stock, however acquired. For example, an investor may have economic exposure to a company by owning the stock itself, or through ownership of an index or of derivatives.

⁴⁹⁷ See *infra* Table C.1: Short Sale Position Reporting Regimes for a comparison of short position definitions in foreign jurisdictions.

⁴⁹⁸ Former Exchange Act Rule 10a3-T defined a short position for the purposes of Form SH as “the aggregate gross short sales of an issuer's section 13(f) securities (excluding options), less purchases to close out a short sale in the same issuer. The Form SH short position is not net of long position in the issuer. If a person that has loaned a security to another person sells the security and a bona fide recall is initiated within two business days after trade date, the person that has loaned the security is deemed to own the security for purposes of Rule 200(g)(1) and Rule 200(b) of Regulation SHO, and such sale will not be treated as a short sale.” See *supra* Section III.A.2 for a discussion of Rule 10a3-T and Form SH.

⁴⁹⁹ See *supra* Section III.A.1 for a discussion of FINRA Rule 4560.

position.⁵⁰⁰ The Division's analysis of both identified and aggregated Real-Time Short Position Reporting thus far in this report has been in reference to cash positions. Examples of foreign jurisdictions requiring reporting of cash positions include Australia⁵⁰¹ and Hong Kong.⁵⁰² Short sale positions could also be defined to include other related instruments, such as derivatives, so as to reflect total economic exposure. For example, the current regime in the E.U. takes into consideration securities other than the stock itself.⁵⁰³ The Division believes that Real-Time Short Position Reporting should attempt to balance the comprehensiveness of economic exposure approaches against the costs of complying with them. The Division believes that the most reasonable disclosure of economic exposure includes the reporting of gross positions, including the position in each instrument that contributes to traders' economic exposures, with the exclusion of positions gained in individual stocks resulting from a position in a broad-based index security.

1. Information Provided by Economic Exposure and Limitations

A cash position report will often not correspond with investors' economic exposure to the security in question, because it typically will not reflect the true economic position of the short seller, which might be much larger than the cash position or, conversely, might be fully hedged. For example, a market participant might hedge a long position in a call option by shorting the number of shares of the underlying stock equal to the option delta times the number of options

⁵⁰⁰ For example, a written put option and a long call option combined with a short position in the underlying stock would have a payoff similar to a bond.

⁵⁰¹ See Corporations Regulations 2001 (Cth), *supra* note 182, reg 7.9.99(2) (Australia), which requires reporting of short positions in "section 1020 B products." Section 1020B products are defined in the Australian Corporations Act to include securities, managed investment products, and sovereign debentures, stocks or bonds. See Corporations Act 2001 (2005) (Cth) s1020A (Australia)

⁵⁰² See Hong Kong Consultation Conclusions, *supra* note 181.

⁵⁰³ The SSR contemplates that short positions include all financial transactions that create economic exposure to an issue. See E.U. Regulation No. 236/2012, *supra* note 166, Article 3.

held. The change in value of such a delta-neutral position, which includes a short position, will be approximately zero for small changes in the price of the underlying stock.

Economic exposure could be defined on either a net or gross basis. A net position is one in which all instruments are netted against each other, while a gross position is one in which the contribution to the exposure of each instrument is reported. A gross position would provide much more granular information on how a net position was established. Commenters suggested a number of possible approaches to reporting.⁵⁰⁴

To create a complete view of an investor's economic short exposure, the definition of short sale position would have to include all securities that create a financial interest in the reported stock, or a gross position. For example, to obtain a short exposure to a single stock in the S&P 500, an investor could short an S&P 500 index instrument and purchase the other 499 stocks. However, including positions held via index funds, as is done in some foreign jurisdictions, but in real time would be very complex because it would be difficult to obtain information on the composition of index funds in real time.⁵⁰⁵ However, if index funds were not included, investors could avoid disclosure by shorting funds heavily weighted in the particular stock or set of stocks the investor wishes to short while purchasing stock in the components to which the investor wants no exposure. Such a strategy would be theoretically possible, but likely would not be cost-effective.⁵⁰⁶

⁵⁰⁴ The letter from MFA suggests that short physical positions should be reduced by any long exposures in the same issuers, excluding both indices and baskets; the letter from NYSE suggests initially excluding derivatives, while the letter from AIMA suggests including derivatives and narrow indices, but excluding broad indices.

⁵⁰⁵ See letters from MFA; and AIMA.

⁵⁰⁶ See letter from AIMA.

As discussed above,⁵⁰⁷ the massive quantity of information resulting from Real-Time Short Position Reporting would be difficult for many market participants to analyze meaningfully. The Division believes that the number of economic exposure position changes short sellers would have to report in real time would be much greater than the number of cash positions. For example, an options market maker would likely need to report most option and stock transactions. In addition, the complexity of a short sale position report based on economic exposure would increase with the complexity of the financial instruments included. To analyze economic exposure properly, a market participant would need to have an understanding of all the position components.

2. Economic Benefits and Costs

The Division identified several tradeoffs relevant to defining a short sale position as either a cash position or an economic exposure. A central tradeoff would be between the ability to detect manipulation and any impact on price efficiency. Relative to a cash position, reporting an economic exposure position would help facilitate the detection of market manipulations that were carried out through short sale positions established outside of the equity markets. In fact, reporting only cash positions could even create incentives for trading away from equity markets so that traders could bypass disclosure.⁵⁰⁸ Theoretically, the reporting regime that would provide the highest likelihood of helping to detect market manipulations would involve reporting gross short sale positions obtained in each instrument separately, or would involve reporting gross

⁵⁰⁷ See *supra* Sections V.A.2, V.B.1 and V.B.3.

⁵⁰⁸ On the other hand, if required to report economic exposure on a net basis, market participants might attempt to hide manipulative trading by taking, for example, offsetting derivative positions. In particular, an investor could attempt to hide manipulation by creating an economic long position in options by purchasing deep in the money put options with short expiration and then manipulate the underlying stock downward reducing the net long exposure. See Commission Guidance on Rule 3b-3 and Married Put Transactions, Exchange Act Release No. 48795 (Nov. 17, 2003), 68 FR 65820, 65821 (Nov. 21, 2003)(using married puts (the simultaneous purchase of a put and its underlying securities) to avoid “aggregation obligations” is abusive).

exposure from trading in the equity markets separate from short sale exposure from trading in all other markets.

The impact of economic exposure reports on market quality, including price efficiency and liquidity, compared to the alternative of cash position reporting is unclear. Economic exposure reports would likely provide easier to interpret signals concerning the value of a stock, because they would distinguish directional bets from hedges.⁵⁰⁹ This could substantially improve the positive effect on price efficiency. However, as discussed above,⁵¹⁰ the reporting of economic exposure would reduce the incentives for investing in fundamental research, which would have a negative effect on price efficiency. Economic exposure reports, particularly of gross positions, would supply market participants with more complete information on short sellers' strategies, including hedging strategies, rendering short sellers more vulnerable to order anticipation and squeezes providing further disincentives for investing in fundamental research. This could be especially costly for liquidity of options market makers and other derivative dealers who manage costs and risks by hedging if other market participants can use information on their economic exposure to predict their hedging trades. Economic exposure reporting could also harm price efficiency more than cash position disclosure if, as commenters fear, less sophisticated investors would be more likely to make inferior decisions and exhibit herd trading behavior.⁵¹¹

3. Feasibility and Compliance Costs

The Division understands that many short sellers track their own economic exposure for risk management purposes, though the frequency of netting positions varies across short sellers

⁵⁰⁹ See letters from MFA; and Data Explorers.

⁵¹⁰ See *supra* Sections V.A.4 and V.B.3.

⁵¹¹ See letters from MFA; CPIC; Data Explorers; and STANY.

and prime brokers from real time to end of day.⁵¹² Therefore, calculating net exposure in real time is likely to be feasible for some short sellers. Indeed, several foreign jurisdictions require disclosure of economic exposure, though not in real time.⁵¹³ Real-Time Short Position Reporting representing economic exposure may not be feasible, however, particularly for large financial institutions. Conversations with short sellers indicated that few track their economic exposure in real time.⁵¹⁴ Therefore, a requirement to report economic exposure in real time would likely require changes in industry practices and systems that could be very costly to implement.

The interpretation of economic exposure could be more difficult if it is not calculated using a consistent methodology. The change in economic exposure is not necessarily the sum of the changes in value of each financial instrument that creates economic exposure and this fact complicates the calculation of economic exposure. When the value of a stock changes, the value of a derivative or other financial instrument may change by more or less than the value of the stock. There are typically several alternative models used for risk management purposes that translate the value of the financial instrument into an equivalent exposure to the underlying stock. The particular model chosen by a participant and the assumptions and inputs of that model can vary by participant. This could lead to participants reporting different economic exposures for the same position, which could make it difficult for regulators to determine whether participants reported economic exposure consistently and truthfully.

This issue could be mitigated by specifying a model for measuring economic exposure for reporting purposes. Several foreign jurisdictions require that economic exposure be measured as “delta exposure,” which is defined as the change in the value of a derivative for a one dollar

⁵¹² Discussions with short sellers (Jan. 5, 2011), Options Market Makers (January 24, 2011), and Prime Brokers and Clearing Firms (February 11, 2011).

⁵¹³ See *infra* Table C.1: Short Sale Position Reporting Regimes.

⁵¹⁴ Discussions with short sellers (Jan. 5, 2011).

change in the value of the stock.⁵¹⁵ Delta exposure reporting is a relatively simple and informative way to capture economic exposure, but has some disadvantages. For example, delta varies with changes in market conditions and with the simple passage of time: the delta for an option will change over time even if the value of the underlying stock does not. In addition, delta estimates can vary across participants, because participants may disagree on the appropriate inputs for the models and perhaps even the choice of model used to estimate delta for more complex derivatives.

Because several foreign jurisdictions require reporting economic exposure, the compliance costs of implementing such a regime in the U.S. would be related to whether international short sellers already comply with a similar system in another country. In particular, the costs to short sellers to implement a requirement to calculate economic exposure based on delta in one country would likely be lower if they already complied with a similar requirement in another country. Having similar requirements across countries also would affect the ability of market participants to interpret position information in different countries. To lower costs for reporting entities and make it easier for market participants to compare data across jurisdictions, the Division believes that coordination with regulators outside the U.S. could be useful.

D. Calculation Level for Short Sale Positions

The Division considered how aggregating positions to the trading strategy, decision maker, or legal entity as part of Real-Time Short Position Reporting would affect the feasibility, benefits, and costs. The Division believes that Real-Time Short Position Reporting should

⁵¹⁵ Reporting based on delta exposure is found in for example, the U.K., E.U., and Hong Kong. *See infra* Table C.1: Short Sale Position Reporting Regimes for details.

consider the purpose of the reporting in balancing the tradeoffs associated with the potential calculation levels.

One alternative for reporting short sale positions is at the strategy level. This would provide detailed information that could be used for monitoring and detecting abuse. However, trading strategies can be difficult to define and may be short lived. Furthermore, defining strategies and allocating trades to particular strategies could create opportunities to hide abuse by, for example, splitting large short positions between distinct strategies. Identified Real-Time Short Position Reporting at the strategy level could also facilitate order anticipation strategies and strategies that seek to copy the trading of fundamental short sellers.

An alternative calculation level is at the level of the decision maker. The decision maker is the person or committee that makes the investment decision. Real-Time Short Sale Position Reporting at this level might be closest to current practice, potentially making it the least costly to implement. Aggregating across multiple strategies should reduce the potential for manipulating strategy definitions while still providing detailed information for monitoring and detecting abuse.⁵¹⁶ Higher levels of aggregation would reduce the volume of data reported but could also likely net out much of the detail relevant for detecting abuse.

Calculation of net position under Regulation SHO is generally based on legal entities. However, Regulation SHO also permits, but does not require, each independent trading unit, within a broker-dealer, that pursues its own strategies, subject to certain conditions and requirements, to aggregate all of its positions in a security to determine its net position for order marking purposes.⁵¹⁷ This means that the use or non-use of aggregation units under Regulation

⁵¹⁶ See letters from FIF; and IAA.

⁵¹⁷ See 17 CFR 242.200 (f), which permits trading unit aggregation if a registered broker-dealer meets the following requirements: (1) The broker-dealer has a written plan of organization that identifies each aggregation unit, specifies

SHO can differ across broker-dealers. Allowing similar flexibility in choosing calculation levels in Real-Time Short Position Reporting may entail the lowest compliance costs because the entity already aggregates or not for purposes of complying with Regulation SHO.⁵¹⁸ However, this approach could result in different entities using different levels for short position calculations making these positions more difficult to compare.

Foreign jurisdictions that specify the calculation level typically define that level by reference to either the decision maker or the legal entity.”⁵¹⁹ In Australia⁵²⁰ and Hong Kong,⁵²¹ for example, aggregation and reporting is by legal entity. In the European Union,⁵²² by contrast, aggregation and reporting may be by either a natural or legal person (whether a person or an investment committee). It is possible for the legal entity to be the same as the decision maker.⁵²³

E. Reporting to FINRA and the Commission Only

In addition to the potential public disclosure regimes discussed above,⁵²⁴ Section 417(a)(2)(A) of the Dodd-Frank Act also directs a study of the real-time disclosure of short positions to FINRA and the Commission only.⁵²⁵ The analysis below focuses on a regime in which FINRA and the Commission would receive short sale position reports that identify short sellers. While the analysis below could relate to either cash positions or economic exposure, the

its trading objective(s), and supports its independent identity; (2) each aggregation unit within the firm determines at the time of each sale its net position for every security that it trades; (3) all traders in an aggregation unit pursue only the trading objectives or strategy(ies) of that aggregation unit; and (4) individual traders are assigned to only one aggregation unit at any time.

⁵¹⁸ Some commenters noted that moving away from the aggregation unit concept would require changes and incur costs. *See, e.g.*, letters from SIFMA; and FIF.

⁵¹⁹ *See infra* Appendix C, Table C.1 for a summary of how foreign jurisdictions specify the calculation level.

⁵²⁰ *See* Regulatory Guide 196, *supra* note 164, RG 196.119, 196.152-54 (Australia).

⁵²¹ *See* Hong Kong Consultation Conclusions, *supra* note 181, item 37.

⁵²² *See* E.U. Regulation No. 236/2012, *supra* note 160, Article (7)(c).

⁵²³ For example, the legal entity and investment decision maker would be the same if a trust had one investment committee.

⁵²⁴ *See supra* Sections V.A –V.D.

⁵²⁵ Commenters that generally opposed new short sale position disclosure requirements appeared to be less opposed to reporting to regulators only. *See* letters from MFA; Data Explorers; ICI; FIF; CPIC; AIMA; and STANY.

Division believes that short positions at the decision maker level would be the most useful for surveillance and investigative purposes and are therefore the type of positions discussed below. In particular, those making investment decisions are likely to be the ones in a position to commit market abuse, so seeing the positions they manage would be more informative for regulatory purposes than alternative calculation levels. The Division also stresses that the analysis below assumes threshold short sale position reporting that balances the need to detect manipulation and fraud against resource constraints.⁵²⁶ Finally, the Division notes that Section 417(a)(2)(A) of the Dodd-Frank Act specifies disclosure to the Commission and FINRA only, and not to other regulators such as exchanges (which, along with FINRA, are self-regulatory organizations) or other national or international regulators.

The Division believes that the benefits of Real-Time Short Position Reporting to FINRA and the Commission only are likely to be modest. Specifically, the CAT, if the Commission approves the NMS Plan, would provide regulators with almost the same information as Real-Time Short Position Reporting although it would be less timely. However, the Division believes that implementation and compliance costs of Real-Time Short Position Reporting would likely be significant.

1. Comparison of the Current and Potential Future Data

Relative to currently available data, identified Real-Time Short Position Reporting would provide to the Commission and FINRA readily available information on the short seller and would better enable them to track individual short sellers' positions and changes in those positions. Information on the short seller's identity and the time and place of execution would assist regulators in more quickly uncovering insider trading, and in distinguishing a drop in

⁵²⁶ See discussion in Section V.B.7.

prices that was driven by fundamentals from one that was due to manipulation. In addition, identified information with regard to short sale positions would help identify traders with a motive for causing a drop in prices.⁵²⁷

Relative to currently available data, identified Real-Time Short Position Reporting could be of great help to the Commission and FINRA in facilitating investigations, monitoring and surveillance. The Commission and FINRA currently utilize, among other things, SRO referrals, tips, and complaints to identify abusive traders, and then go through a process of obtaining the necessary information to evaluate whether violations of the securities laws, including manipulation, have occurred. Having this information available more promptly, without having to obtain it on a case-by-case basis, would allow the Commission and FINRA to monitor markets more easily. This would enable them to identify suspicious activity more quickly and effectively, potentially increasing the number of leads that could result in investigations of illegal behavior. However, any such system would be to some extent limited because it would only trace market manipulations after the trader had taken a short position.

However, the Division does not believe that Real-Time Short Position Reporting to the Commission and FINRA will achieve significant benefits beyond those anticipated from the CAT. As noted above,⁵²⁸ CAT could provide information to regulators on the identities of short sellers and regulators could process CAT data to estimate short sale positions. The Real-Time Short Position Reporting data would be more timely and precise, but the benefits of regulatory use of more timely data than CAT likely would be limited.

⁵²⁷ See *supra* note 403 and accompanying text.

⁵²⁸ See *supra* Section III.B.1.

2. Economic Benefits and Costs

The alternative of reporting short sale positions only to the Commission and FINRA would avoid the adverse effects on market quality and capital formation of public reporting described above.⁵²⁹ Importantly, a non-public reporting regime would be less likely to affect non-abusive short sellers, meaning such a regime would not discourage the fundamental research that promotes price efficiency, in contrast to a publicly-identified regime, as discussed above.⁵³⁰ Also, such information could not facilitate market manipulation or increase suboptimal trading decisions because the information would not be made public.

Not making Real-Time Short Position data public would reduce the benefits relative to publicly-identified Real-Time Short Position Reporting, because market participants would not realize the enhancements to market quality and capital formation that would flow from the public availability. The potential benefits to capital formation that could follow from better monitoring and surveillance, however, may still apply. Relative to currently available data,⁵³¹ disclosure to the Commission and FINRA would allow the Commission and FINRA to better detect, investigate, and bring actions related to fraud and manipulation, and should help to better deter abusive short selling. Real-Time Short Position Reporting to the Commission and FINRA would not allow members of the public to monitor for market manipulation and other abusive short selling, however. This drawback might not be a serious one. Few market participants have the necessary resources to examine such data for market manipulations and therefore many must rely on regulators for monitoring and surveillance.

⁵²⁹ See *supra* Section V.A.4.

⁵³⁰ See *supra* Sections V.A.4 and V.B.3.

⁵³¹ As noted above, the benefits relative to CAT would be lower because the Real-Time Short Position Reporting would provide little information additional to what is in CAT.

3. Feasibility and Compliance Costs

The Division concludes that the compliance costs of Real-Time Short Position Reporting to the Commission and FINRA only are likely to be substantial. The implementation and compliance costs of reporting to the Commission and FINRA only would likely be identical to those of public reporting. In addition, as noted above,⁵³² regulators may not be able to significantly improve their regulatory investigations using data from Real-Time Short Position Reporting because the CAT, if approved, may provide similar data to Real-Time Short Position Reporting, depending upon the particular design of the regime. Finally, the Division notes that, reporting the data with a delay would achieve many of the regulatory benefits at potentially lower cost because, typically, regulatory investigations (as opposed to surveillance) do not require real-time data.

VI. Disclosure of Both Transactions and Positions

The previous two sections considered the Transaction Marking and Real-Time Short Position Reporting regimes in isolation. The Division also considered whether the results would change if there were both a Transaction Marking regime and a Real-Time Short Position Reporting regime. Because the information produced by the two regimes overlaps, the benefits and costs of the combined regimes would not simply be the sum of the benefits of the two regimes. In addition, if the regimes require similar infrastructure, then one regime may be less costly to implement after the implementation of the other regime.

After considering the issues, the Division believes that the adoption of both types of reporting could magnify some concerns while reducing others. In general, the exact form of any

⁵³² See generally *supra* notes 373-374 and accompanying text.

reporting would affect the magnitude of the impact on the benefits and costs of implementing both types of reporting.

Both Transaction Marking and Real-Time Short Position Reporting would reveal information about investors and their strategies. Market participants could infer some of the information in one regime from the other, so the incremental benefits of one regime would be lower in the presence of the other regime. For example, if Real-Time Short Position Reporting included aggregated short positions only, information from short position data would largely, though not completely, duplicate data from Transaction Marking.⁵³³ In other words, market participants could use transaction data to estimate changes in aggregated stock positions, even in the absence of Real-Time Short Position data. However, combined reporting might amplify market quality concerns. Because more information would be public about transactions and short positions, it would be easier for some investors to anticipate or copy the actions of other investors, even if the reporting regime did not reveal short sellers' identities. This would increase incentives for some short sellers to try to mask their trading to reduce this risk, which would make the data more difficult to interpret.

The particular design chosen for Real-Time Short Position Reporting would substantially affect the degree of overlap, though Transaction Marking and Real-Time Short Position Reporting would not be perfect substitutes for each other - regardless of their design. If Real-Time Short Position Reporting included the reporting of economic exposure, it would provide information beyond what Transaction Marking alone would provide. While Transaction Marking data would contain important information beyond that resulting from Real-Time Short Position

⁵³³ However, the Division notes that to the extent transaction marks are populated using Reg SHO order marking based on positions at order entry, rather than execution, estimating short positions from transaction marks would be imprecise and potentially biased. *See supra* Section III.A.3 and notes 219-220 and accompanying text.

Reporting because of the “market maker short” mark, an estimate of aggregated short positions from transaction marks would not capture changes in positions resulting from actions in other instruments, such as option exercises and assignments.

The Division does not believe that compliance costs for either type of reporting regime would be lower in the presence of the other type of reporting regime. For example, the infrastructure changes necessary for short sellers to be able to report their positions in real time are likely to be in addition to those required to create and report “buy-to-cover” or “market maker short” transaction marks.

VII. Concluding Remarks

The Division studied the feasibility, benefits, and costs of Real-Time Short Position Reporting to the public or only to FINRA and the Commission and the feasibility, benefits, and costs of a Transaction Marking Pilot that would add new, short sale-related marks to the Consolidated Tape. The Division considered the benefits and costs of Real-Time Short Position Reporting and the Transaction Marking Pilot by comparing the information provided by each to currently available and potentially forthcoming short sale data. The Division studied the feasibility of Real-Time Short Position Reporting and the Transaction Marking Pilot by examining the extent to which current systems can be altered to accommodate either short sale reporting regime and the cost to do so.

Overall, the Division concludes that none of these alternatives is likely to be cost-effective when compared to the baseline. The Division concludes that the benefits to regulatory and public uses of information from Real-Time Short Position Reporting are likely to be modest. In particular, the Division believes that Real-Time Short Position Reporting and Transaction

Marking would provide regulators with little additional information than would already be available from the CAT. However, the Division concludes that the implementation and compliance costs, which could include updating or building a system to collect short position reports, are likely to be significant, even if the information is provided to regulators only. Implementing the CAT will enable the Commission to reassess the extent of any additional benefits that may be derived from requiring Real-Time Short Position Reporting and Transaction Marking, and the costs of any additional infrastructure needed to collect such information. Finally, the Division concludes that a voluntary pilot in Transaction Marking is unlikely to be of much utility. While this report concludes that the short sale reporting regimes studied are unlikely to be cost-effective, the analysis contained in this report should still provide valuable insight to potential future rulemaking regarding short sale disclosure.

Appendix A: Schedule of Discussions⁵³⁴

January 5, 2011: Short Sellers (Lone Pine Capital LLC, Managed Funds Association, Maverick Capital Ltd.)

January 13, 2011: U.S. SROs (BATS Exchange Inc., Chicago Board Options Exchange, Consolidated Tape Association, Financial Industry Regulatory Authority, National Stock Exchange, NASDAQ, NASDAQomx, NYSE Euronext)

January 18, 2011: Market Makers in Equities Markets (Bank of America Corporation, Barclays PLC, Citadel Investment Group LLC, Credit Suisse Group AG, Goldman Sachs Group Inc., JPMorgan Chase & Co., Knight Capital Group Inc., Securities Industry and Financial Markets Association)

January 21, 2011: Introducing Brokers (Bank of America Corporation, UBS AG, Deutsche Bank AG, ConvergEx Group LLC, Morgan Keegan & Company Inc., Sterne Agee Group Inc., Securities Industry and Financial Markets Association)

January 24, 2011: Market Makers in Options Markets (Bank of America Corporation, Citigroup Inc., Goldman Sachs Group Inc., Securities Industry and Financial Markets Association, Susquehanna International Group LLP, Timber Hill LLC, Wolverine Trading LLC)

January 28, 2011: Short Sellers (AQR Capital Management LLC, Camden Asset Management LP, Forward Management LLC, GETCO LLC, Hussman Funds, Kynikos Associates LP)

January 31, 2011: Institutional and Retail Investors and their Representatives (American Association of Individual Investors, Delaware Investments Inc., Dodge and Cox Inc., Invesco Ltd., Investment Company Institute, TD Ameritrade)

February 4, 2011: Data Vendors (Bloomberg LP, Capital IQ Inc., Data Explorers Ltd., FTEN Inc., Sandler O'Neill and Partners LP, ShortSqueeze.com, SunGard Data Systems Inc., Thomson Reuters Corporation)

February 7, 2011: Prime Brokers and Clearing Firms (Bank of America Corporation, Goldman Sachs Group Inc., Morgan Stanley, National Financial Services LLC, Pershing LLC)

February 11, 2011: Representatives of Issuers (American Bankers Association, Professor Jim Angel, Issuer Advisory Group LLC, New York Community Bancorp, Park National Corporation, U.S. Chamber of Commerce, Zions Bancorporation)

February 14, 2011: Representatives of Issuers (JP Morgan Relationship Management)

⁵³⁴ Though views of academics are cited to and mentioned in the report, the Division did not specifically reach out to outside academics.

February 15, 2011: Representatives of Issuers (Overstock.com)

February 15, 2011: International Regulators (U.K. – Financial Services Authority)

February 17, 2011: International Regulators (France – Financial Markets Authority)

February 22, 2011: International Regulators (Australia – Australian Securities and Investments Corporation)

February 23, 2011: International Regulators (Spain – National Securities Market Commission)

March 3, 2011: International Regulators (Hong Kong – Securities and Futures Commission)

March 17, 2011: International Regulators (Germany – Federal Financial Supervisory Authority)

March 22, 2011: Data Explorers

Appendix B: List of Commenters

<u>Name</u>	<u>Organization</u>	<u>Date</u>
A., Venkatesh		(July 21, 2011)
Aboo, Romeo K.		(May 4, 2011)
Angel, James J.		(June 24, 2011)
Anonymous		(June 8, 2011)
		(June 16, 2011)
		(June 22, 2011)
Ball, Robert		(May 29, 2011)
Ballaban, Bruce		(May 20, 2011)
Ballard, James		(June 6, 2011)
Bexell, Jay C.		(May 10, 2011)
Big, Arthur		(June 11, 2011)
		(June 11, 2011)
Bird, John		(May 6, 2011)
Blair, Jerry A.		(June 28, 2011)
Blair, Jim		(Nov. 15, 2011)
Bourget, Robert		(May 6, 2011)
Brost, Hans		(July 26, 2011)
Cameron, Alan S.		(May 4, 2011)
Campbell, Robert N.		(July 15, 2011)
Cappone, Mark W.		(May 31, 2011)
Chanos, James	Coalition of Private Investment Companies	(June 23, 2011)
Chepucavage, Peter J.	International Association of Small Broker Dealers and Advisors	(June 3, 2011)
Choi, Jennifer S.	Investment Adviser Association	(June 23, 2011)
Cobble, George W.		(May 6, 2011)
Crowe, John		(May 30, 2011)
Cruttenden, Walter W.		(May 28, 2011)
Cunningham, William	Creative Investment Research Inc.	(July 4, 2011)
Cutler, James		(June 10, 2011)
D., Tom		(May 6, 2011)
Dalton, Kevin		(May 10, 2011)
Dane, Jeff		(May 6, 2011)
Dickey, Jeff		(May 12, 2011)
		(July 15, 2011)
Dinar, Simon		(May 31, 2011)
Donais, Lee R.	L.R. Donais Company Inc.	(May 8, 2011)
Dubberley, Mark C.		(May 9, 2011)
Dungca, Jesus G.		(May 9, 2011)
E., Tom		(May 28, 2011)
Eddy, Donald L.		(May 28, 2011)
Edwards, Sally P.		(May 10, 2011)

Engen, Eric		(May 4, 2011)
Equitz, Michael		(July 15, 2011)
Finch, Michael		(May 19, 2011)
Fitzmyers, Jeff		(May 7, 2011)
Friedman, Daniel A.		(May 5, 2011)
Fulford, Forrest		(May 9, 2011)
Gallagher, Douglas K.		(May 28, 2011)
Gamon, Alfredo		(May 6, 2011)
Ganjavi, Reza		(May 28, 2011)
Gensen, John		(May 18, 2011)
Gilbert, Joel H.		(July 18, 2011)
Gish, Thomas E.		(May 7, 2011)
Glaser, Lawrence F.		(June 14, 2011)
Goldenberg, Alan		(June 1, 2011)
Gonzales, David		(May 6, 2011)
Gorka, Thomas A.		(June 17, 2011)
Grimley, John J.		(Oct. 13, 2011)
Grothe, Robert		(May 10, 2011)
Gushurst, Jordan		(May 30, 2011)
Haftel, Howard B.		(May 4, 2011)
Hamburg, Mark W.		(May 6, 2011)
Hamlet, Naphtali M.		(May 6, 2011)
Hammerman, Ira D.	SIFMA	(June 23, 2011)
Harris, Eugene F.		(May 6, 2011)
Hart, David		(June 17, 2011)
Hearne, Laura H.		(May 6, 2011)
Hempleman, Camilla		(May 12, 2011)
Henderson, James		(June 20, 2011)
Herr, Don		(May 29, 2011)
Holloway, Steven		(Sept. 22, 2011)
Horeis, Thomas K.		(June 20, 2011)
Jacob, Gary M.		(May 19, 2011)
		(May 28, 2011)
Jakala, Henry		(June 22, 2011)
James, William H.	Residential Bancorp	(May 9, 2011)
Jasper, Lynn C.		(May 27, 2011)
Jenkins, Robert H.	47 Degrees North Ventures	(July 9, 2011)
Johnson, Jonathan E.	Overstock.com	(May 19, 2011)
		(June 2, 2011)
Jones, Charles M. (with Reed, Adam V. and Waller, William)		(June 23, 2011)
Kaswell, Stuart J.	Managed Funds Association	(June 22, 2011)
Kimmel, Manisha	Financial Information Forum	(June 23, 2011)
King, Linda A.		(May 7, 2011)
Kochhar, Bobby		(July 15, 2011)

Krol, Jiri	Alternative Investment Management Association Ltd.	(June 23, 2011)
Lambrechts, Christine		(May 6, 2011)
Lee, Chuck		(July 16, 2011)
Lesser, Michael F.		(July 15, 2011)
Lieberman, Gary M.		(May 10, 2011)
Liming, Calvin J.		(June 6, 2011)
Lukomnik, Jon	IRRC Institute	(May 9, 2011)
Lyons, John B.		(May 6, 2011)
Mac, Mark A.		(May 6, 2011)
Mahal, Jaspal S.		(May 7, 2011)
Mahalawat, Sanjeev		(May 5, 2011)
Maltby, William L.		(July 17, 2011)
Mass, Arnold M.		(May 9, 2011)
Massie, Frank D.		(May 28, 2011)
Mathisen, John H.		(May 5, 2011)
McDonald, Bruce H.		(May 31, 2011)
		(June 25, 2011)
McGee, Jack R.		(May 6, 2011)
McGinness, Janet L.	NYSE Euronext	(October 1, 2010)
		(June 21, 2011)
McLeod, George		(May 10, 2011)
McMillan, Karrie	Investment Company Institute	(June 23, 2011)
McMorrow, Frank C.		(July 17, 2011)
McNamee, Harry T.		(May 24, 2011)
Meixler, Peter E.		(May 7, 2011)
		(June 17, 2011)
Miller, Peter A.		(May 6, 2011)
Morgan, Jeffrey D.	National Investor Relations Institute	(June 21, 2011)
Morrill, Daniel		(May 12, 2011)
Moskowitz, Neil		(May 8, 2011)
Murphy, Thomas		(May 10, 2011)
		(May 10, 2011)
Nappu, Joe		(June 14, 2011)
Nierode, John A.		(May 6, 2011)
Nixon, Dennis	International Bancshares Corporation	(July 18, 2011)
Nuallain, Ruairi O.	Battle for Trademarks, Ltd.	(May 6, 2011)
Olney, Casey E.		(May 18, 2011)
Orlander, Arnold		(May 7, 2011)
Overholt, Kevin		(June 14, 2011)
Parker, Blaine L.		(May 6, 2011)
Phillip, Lord M.		(May 19, 2011)
Polege, Karen		(May 6, 2011)
Prescott, Sally E.		(Sept. 22, 2011)
Reichold, Jane M.		(May 17, 2011)
Rentzsch, Kevin		(May 24, 2011)

Rogers, Wayne		(July 15, 2011)
Roodt, Nico		(May 28, 2011)
Rulewicz, Richard		(May 8, 2011)
S., Al		(June 10, 2011)
Sage, Larry		(May 10, 2011)
Sargent, Jan		(May 6, 2011)
Saunders, V.		(May 10, 2011)
Schatz, John		(June 18, 2011)
Schweitzer, Ed		(June 1, 2011)
Scilla, Joseph A.		(May 9, 2011)
Scott, John J.		(May 9, 2011)
Scott, Judith	Portfolio Recovery Associates, Inc.	(June 24, 2011)
Semifero, Joe		(May 8, 2011)
Shatto, Suzanne H.		(May 6, 2011)
Singbush, Murray N.		(May 7, 2011)
Sleesman, Norman L.		(May 28, 2011)
Slonecker, Troy		(May 8, 2011)
Smith, Donal	Data Explorers, Inc.	(June 23, 2011)
Smith, John		(May 5, 2011)
Sumn, L.A.		(June 10, 2011)
Sung, Ho C.		(Sept. 22, 2011)
Sutcliffe, Brian		(May 9, 2011)
Swallow, Phillip S.		(May 9, 2011)
Swann, Roberta		(May 10, 2011)
Taillefer, Michael		(June 20, 2011)
Taylor, E.A.		(June 24, 2011)
Tecca, Robert		(May 12, 2011)
Teepe, Shelley		(May 4, 2011)
Trzecki, Ken		(May 29, 2011)
Unger, Kimberly	Security Traders Association of New York, Inc.	(July 5, 2011)
Unruh, Sean		(June 8, 2011)
Vance, H. Eugene		(May 6, 2011)
Voight, Mick		(May 17, 2011)
Wetzel, Scott		(May 13, 2011)
Wilbur, Scott E.		(May 6, 2011)
Williams, Raymond E.		(May 28, 2011)
Wilson, Kelly D.		(May 9, 2011)
Witmer, Daniel		(May 10, 2011)
Wong, Victor Y.		(May 20, 2011)
Wynegar, Samuel E.		(Nov. 15, 2011)
Yagami, Iwao		(June 12, 2011)
Yost, Lawrence A.		(July 6, 2011)
Zarouri, Mourad		(May 10, 2011)

Appendix C: Related Regulations in Certain Foreign Jurisdictions

Table C.1: Short Sale Position Reporting Regimes

Jurisdiction	Scope of Short Position				Reporting Process				Regime Status
	Financial Instruments Included	Threshold for Reporting			Obligation to Report ⁵³⁵	To Regulators Mechanism and Deadline	For Public Dissemination		
		To Regulators	To Public	How Calculated			Format	Mechanism and Deadline	
Australia (ASIC) ⁵³⁶	Cash (all listed securities/products) ⁵³⁷	More than \$100,000 and 0.01%	---	Positions at 7PM; % of total product outstanding	Short seller (legal entity) ⁵³⁸	FIX connection to ASIC; Within 3 trading days	Aggregated by product	ASIC website; Four days after receipt	In effect
Canada (IIROC) ⁵³⁹	Cash (including convertibles or exchangeable securities) ⁵⁴⁰	---	---	Total short positions of each individual account ⁵⁴¹	Brokers ⁵⁴²	Email to TSX; Within 2 trading days; twice per month ⁵⁴³	Aggregated by stock (top 20 largest short positions) ⁵⁴⁴	TSX or CNQ website ⁵⁴⁵	In effect

⁵³⁵ For purposes of this table, where reporting is by the legal entity, positions are aggregated and reported at levels identified as separate legal entities. Reporting by the decision maker takes place when the person or committee making the investment decision aggregates and reports its positions. *See* discussion *supra* Section V.D.

⁵³⁶ *See* Regulatory Guide 196 (Australia), *supra* note 164; Corporations Regulations 2001 (Cth), *supra* note 182, reg 7.9.99(2) (Australia).

⁵³⁷ *See* Corporations Regulations 2001 (Cth), *supra* note 182, reg 7.9.99(2) (Australia), which requires reporting of short positions in “section 1020 B products.” Section 1020B products are defined in the Australian Corporations Act to include securities, managed investment products, and sovereign debentures, stocks or bonds. *See* Corporations Act 2001 (2005) (Cth) s1020B (Australia)

⁵³⁸ *See* Regulatory Guide 196 (Australia), *supra* note 164, RG 196.119, 196.152-54.

⁵³⁹ *See* Investment Industry Regulatory Organization of Canada (IIROC), Universal Market Integrity Rules (hereinafter UMIR), Rule 10.10 (May 26, 2006), available at http://www.iiroc.ca/industry/rulebook/documents/UMIR1010_en.pdf ; IIROC, Rules Notice - Provisions Respecting Regulation of Short Sales and

Failed Trades No. 11-0075 (Feb. 25, 2011) (Canada), available at
<http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=14604580516B48F88A0BCFA629781242&Language=en>.

⁵⁴⁰ See UMIR Part 1.1.

⁵⁴¹ See UMIR Rule 10.10(1).

⁵⁴² See UMIR Rules 10.10(3) and accompanying guidance and UMIR Rule 1.1.

⁵⁴³ See UMIR Rule 10.10(3).

⁵⁴⁴ See Toronto Stock Exchange, Top 20 Largest Consolidated Short Position Report, available at
http://www.tmx.com/en/news_events/exchange_bulletins/bulletins/12-31-2012_TSX-ShortReportDec31-12.html.

⁵⁴⁵ See UMIR Rule 10.10; UMIR Market Integrity Notice 2007-022 (Oct. 29, 2007), available at
http://www.iiroc.ca/industry/rulebook/Documents/UMIR1010_en.pdf.

Jurisdiction	Scope of Short Position			Reporting Process			Regime Status		
	Financial Instruments Included	Threshold for Reporting		Obligation to Report ⁵³⁵	To Regulators Mechanism and Deadline	For Public Dissemination			
		To Regulators	To Public			How Calculated		Format	Mechanism and Deadline
E.U. (ESMA) ⁵⁴⁶	Cash, Derivatives, ⁵⁴⁷ Securities, including indexes, ETFs ⁵⁴⁸	0.2% initially, 0.1% up and down increments thereafter ⁵⁴⁹	0.5% initially, 0.1% up and down increments thereafter	End of day (12 a.m.) positions; Percentage of total issued share capital ⁵⁵⁰	Short seller (natural or legal person); Market makers are exempt ⁵⁵¹	Non-standardized across E.U. states; By 3:30p.m. of the next trading day	Individual, Identified	By 3:30PM of the next trading day	In effect

⁵⁴⁶ On March 16, 2012, the European Parliament enacted Regulation No. 236/2012, referred to as “the SSR”. See Regulation No. 236/2012, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:086:0001:0024:en:PDF>. The SSR replaced the temporary measures previously in effect in the 30 European Economic Area (EEA) nations. The SSR went into effect on November 1, 2012. Individual exchanges may have additional short sale rules. See *infra* Table C.2.

⁵⁴⁷ The SSR contemplates that short positions include all financial transactions that create economic exposure to an issue. See E.U. Regulation No. 236/2012, *supra* note 166, Article 3.

⁵⁴⁸ The short sale of an ETF security does not have to be reported, however, investors must incorporate these positions into their calculation of net short exposure to a given security. ESMA, Questions and Answers, Implementation of the Regulation on short selling and certain aspects of credit default swaps (2nd Update) at 7 (January 30, 2013), available at <http://www.esma.europa.eu/page/Short-selling-documents>.

⁵⁴⁹ These notification thresholds do not apply to short positions in sovereign debt, which under the SSR, are calculated separately by ESMA (taking into account, *inter alia*, the total amount of outstanding debt issued by the sovereign and the liquidity of each sovereign bond market) and published on ESMA’s website. See E.U. Regulation No. 236/2012, *supra* note 160, Article 7(2); ESMA, Net Short Notification Thresholds for Sovereign Issuers, available at <http://www.esma.europa.eu/page/Net-short-position-notification-thresholds-sovereign-issuers>.

⁵⁵⁰ While the SSR does not specifically provide for a delta-adjustment, follow up commentary by ESMA has explained that adjusting for delta is appropriate in certain situations. See *id.* at 13, 14.

⁵⁵¹ For more information on the market maker exemption, see ESMA, Final Report. Guidelines on the exemption for market making activities and primary market operations under Regulation (EU) 236/2012 of the European Parliament and the Council on short selling and certain aspects of Credit Default Swaps, (February 1, 2013), available at <http://www.esma.europa.eu/system/files/2013-158.pdf>.

Jurisdiction	Scope of Short Position				Reporting Process				Regime Status
	Financial Instruments Included	Threshold for Reporting			Obligation to Report ⁵³⁵	To Regulators Mechanism and Deadline	For Public Dissemination		
		To Regulators	To Public	How Calculated			Format	Mechanism and Deadline	
Hong Kong (SFC) ⁵⁵²	Cash	At least HK\$30 million or 0.02%	---	End of last trading day of week positions ⁵⁵³ ; % of total stock outstanding	Short seller (legal entity)	To SFC via e-portal ; By 2nd trading day of following week	Aggregated by security	SFC website; Five business days later	In effect
Japan (FSA) ⁵⁵⁴	Cash, Derivatives	0.20%	0.50%	% of issued stock	Short seller	Broker-dealers	Aggregated by security and identified by sector	Exchange website	In effect

⁵⁵² See Hong Kong Securities and Futures Ordinance, Ch. 571AJ, Securities and Futures (Short Position Reporting) Rules (effective June 18, 2012), available at <http://www.legislation.gov.hk/eng/home.htm>; Hong Kong Securities Futures Commission, Short Position Reporting - Frequently Asked Questions (June 20, 2012), available at http://www.sfc.hk/web/doc/EN/research/short-position-reporting/FAQs_on_SPR_EN_20%20June%202012.pdf; Guidance Note on Short Position Reporting (June 1, 2012), available at http://en-rules.sfc.hk/net_file_store/new_rulebooks/h/k/HKSFC3527_4242_VER10.pdf.

⁵⁵³ Note that Hong Kong's short sale rules provide that the Securities and Futures Commission may require daily position reporting in exigent circumstances. See Hong Kong Securities and Futures Ordinance, Ch. 571AJ, Rule 7.

⁵⁵⁴ See FSA Japan Proposed Short Sale Disclosure and FSA Japan Short Sale Disclosure Threshold, *supra* note 165, at 1; see also Tokyo Stock Exchange, Revision of Methods for Short Selling Position Reporting and Disclosure (Sept. 4, 2013), available at http://www.tse.or.jp/english/market/report/b7gje6000001iz9y-att/guideline_for_short_position_reporting_en.pdf.

Table C.2: Short Marking Regimes

Jurisdiction	Requirement to Mark	Marks Included	Reporting Orders v. Transactions	Where Marks are Reported	Timing of Reporting	Dissemination to Market	Exceptions from Marking
Australia (ASIC) ⁵⁵⁵	Short seller via broker	Long sale, short sale	Transactions	Market operator	Report by 9a.m. next day capturing all short sales executed up to 7p.m.	Market operator aggregates, made public on day of reporting	Market makers ⁵⁵⁶
Canada (IIROC) ⁵⁵⁷	Holder via broker	Short sale, short exempt ⁵⁵⁸	Orders	Market Regulator (regulation services provider)	Real time (at or before 6p.m. of trade date)	Bimonthly transactions summaries	Accounts of persons with marketplace trading obligations, directionally neutral trading

⁵⁵⁵ See Regulatory Guide 196 (Australia), *supra* note 164; ASIC Press Release, Requirements for disclosure and reporting of short sales from 19 November 2008, ASIC, 08-211, (Oct. 28, 2008), available at <http://www.asic.gov.au/asic/asic.nsf/byheadline/08-211+Requirements+for+disclosure+and+reporting+of+short+sales+from+19+November+2008?openDocument>.

⁵⁵⁶ See Regulatory Guide 196 (Australia), *supra* note 164, at 196.63.

⁵⁵⁷ See generally IIROC, Provisions Respecting Regulation of Short Sales and Failed Trades, No. 11-0075 (Feb. 25, 2011), available at <http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=14604580516B48F88A0BCFA629781242&Language=en>; Ontario Secs. Comm., National Instrument 23-101 - Trading Rules, Part 11.2, available at http://www.iiroc.ca/industry/Documents/NationalInstrument23101_en.pdf; IIROC, Rules Notice Request for Comments, Proposed Guidance on 'Short Sale' and 'Short-Marking Exempt' Order Designations, No. 11-0076 (Feb. 25, 2011) available at <http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=09B964F0FD814123AD04640B2F04A012&Language=en>.

⁵⁵⁸ The short exempt mark is used for purchases and sales occurring in the execution of “directionally neutral” trading strategies such as short sale orders by market makers and certain arbitrage accounts. See IIROC, Rules Notice - Provisions Respecting Regulation of Short Sales and Failed Trades, No. 12-0078 (Mar. 2, 2012), available at <http://docs.iiroc.ca/DisplayDocument.aspx?DocumentID=7026F16880C345EAA63555B8802DBBAF&Language=en>.

Jurisdiction	Requirement to Mark	Marks Included	Reporting Orders v. Transactions	Where Marks are Reported	Timing of Reporting	Dissemination to Market	Exceptions from Marking
							strategies, and arbitrageurs) ⁵⁵⁹
Hong Kong (SFC) ⁵⁶⁰	Short seller via broker	Sell (long, short) (some marks for participants, including market maker)	Orders	HKEx	Real time	Aggregated short selling turnover by stock published on HKEx website twice daily ⁵⁶¹	Securities market makers, structured product liquidity providers, designated index arbitrage, stock futures hedging, structured product hedging, options hedging
Poland (KNF) ⁵⁶²	Broker	Short	Transactions	Warsaw Stock Exchange	Real time	Short sale transactions and cumulative volume and value of trading in short sale transactions (published immediately after trading session) ⁵⁶³	---

⁵⁵⁹ See *id.*, Provision 1.6.

⁵⁶⁰ See Hong Kong Exchange Rules, Eleventh Schedule, Rule 5; Hong Kong Securities and Futures Ordinance, Part VII Restriction on Short Selling, etc.: Sections 170 (Short Selling Restricted), 171 (Requirements to confirm short selling order), 172 (Requirements to Disclose Short Sales), and Section 397: Rules by Commission of the Securities and Futures Ordinance. There were 581 securities eligible to be sold short as of November 28, 2012. See Designated Securities Eligible for Short Selling, available at http://www.hkex.com.hk/eng/market/sec_tradinfo/alphabetic.htm. For list of exceptions, see HKEx Regulated Short Selling (Jun. 28, 2010), available at http://www.hkex.com.hk/eng/market/sec_tradinfo/regshortsell.htm

⁵⁶¹ See Hong Kong Exchange, Short Selling Turnover Today, available at <http://www.hkex.com.hk/eng/stat/smstat/ssturnover/sstoday.htm>.

⁵⁶² See Warsaw Stock Exchange Rules, § 107, § 171a, *supra* note 185; Act on Trading in Financial Instruments, *supra* note 185; Detailed Exchange Trading Rules, *supra* note 185.; WSE Detailed Exchange Trading Rules Short Sale §20, *supra* note 185.

⁵⁶³ Aggregate data is available at http://www.gpw.pl/krotka_sprzedaz_pelna_wersja_en.

Jurisdiction	Requirement to Mark	Marks Included	Reporting Orders v. Transactions	Where Marks are Reported	Timing of Reporting	Dissemination to Market	Exceptions from Marking
Singapore ⁵⁶⁴	Short seller via broker ⁵⁶⁵	Short Sale	Orders	Singapore Exchange	Start of next trading day	Aggregated short selling information from the previous trading day	---

⁵⁶⁴ See Monetary Authority of Singapore, *Guidelines on Short Selling Disclosure*, SFA 15-G02 (Jan. 9, 2013) available at <http://www.mas.gov.sg/~media/MAS/Regulations%20and%20Financial%20Stability/Regulations%20Guidance%20and%20Licensing/Securities%20Futures%20and%20Fund%20Management/MIS%20Regs/SFA%20Guidelines%20on%20Short%20Selling%20Disclosure%20%209%20January%202013.pdf>; see also Singapore Exchange Limited, *Frequently Asked Questions, Marking of Sell Orders*, available at http://www.sgx.com/wps/portal/sgxweb/home/faqs#Marking_of_SellOrders.

⁵⁶⁵ Market participants must disclose whether a sell order is a short sale to the broker executing the trade. The broker is then required to report their short sale data to the Singapore Exchange (SGX), which publishes aggregated data including sales volume and value. See Singapore Exchange Limited, *Frequently Asked Questions, Marking of Sell Orders*, *supra* note 543.

Appendix D: Certain Short Sale-Related Regulatory Actions

- 1934 Securities Exchange Act of 1934. Section 10(a) grants the Commission authority to regulate short sales of securities registered on a national securities exchange, as necessary or appropriate in the public interest or for the protection of investors.⁵⁶⁶
- 1935 Exchange Act Release No. 179. The Commission requests that the national securities exchanges adopt certain rules for the regulation of trading on exchanges, including a uniform short selling rule forbidding a member from effecting a short sale of a security at a price below the last sale price of such security on the exchange.
- 1935 Exchanges adopt general rules prohibiting all sales which have the effect of “demoralizing” the market, including a short sale below the previous sale.⁵⁶⁷
- 1938 Exchange Act Release No. 1548. The Commission adopts rules to define a short sale as the sale of a security which the seller does not own or any sale which is consummated by the delivery of a borrowed security; to require that any short sale must be made at a price above the price at which the last transaction in the security took place; and to require that every order for the sale of a security on a national securities exchange must be marked either “long” or “short.”
- 1939 Exchange Act Release No. 2039. The Commission modifies its rules governing short selling on national securities exchanges to permit short sales at the same price as the last sale, provided that the last sale price was higher than the last different price which preceded it.
- 1963 Report of Special Study of Securities Markets of the Securities and Exchange Commission.⁵⁶⁸ The Commission issues the report of the staff of the Special Study of Securities Markets, identifying three objectives of the uptick rule:
- Allow relatively unrestricted short sales in an advancing market;
 - 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 by exhausting all remaining bids at one price level, causing successively lower prices to be established by long sellers.⁵⁶⁹

⁵⁶⁶ Section 10(a) of the Securities Exchange Act of 1934, as amended, 15 U.S.C. 78j(a).

⁵⁶⁷ See Exchange Act Release No. 13091 (Dec. 21, 1976), 41 FR 56530, n. 2 (Dec. 28, 1976); COMM. OF INTERSTATE & FOREIGN COMMERCE, REPORT OF SPECIAL STUDY OF SECURITIES MARKETS OF THE SECURITIES AND EXCHANGE COMMISSION, (Part 2), H.R. REP. NO. 88-95, at 251 (1963). (“1963 SPECIAL STUDY”).

⁵⁶⁸ 1963 SPECIAL STUDY, *supra* note 567.

⁵⁶⁹ *Id.* at 251.

- 1976 Exchange Act Release No. 13091. The Commission proposes three alternative temporary rules that would suspend in part, to varying degrees, the operation of the “tick” test provisions of Rule 10a-1.
- 1980 Exchange Act Release No. 17347. In response to the 1976 proposals, several market participants, including the NYSE, generally indicate that the “tick” test provisions of Rule 10a-1 continue to be appropriate for the protection of investors and should not be modified. The Commission withdraws the proposals.
- 1986 Short Sale Regulation of NASDAQ Securities. A study, conducted by former SEC Commissioner Irving Pollack and commissioned by the NASD, reports on short selling practices in the OTC securities market.⁵⁷⁰
- 1986 Exchange Act Release No. 23572. The Commission approves an NASD rule filing that provides for additional regulation of short selling in the over-the-counter market via requirements that NASD members mark customer order tickets as “long” or “short,” and when accepting a “short” sale order from a customer, make an affirmative determination that the member will receive delivery of the security from the customer or that it can borrow the security on behalf of the customer for delivery by settlement date.⁵⁷¹
- 1988 Exchange Act Release No. 26028. The Commission adopts Rule 10b-21(T), prohibiting a person who effects a short sale of an equity security between the filing of a registration statement and the time at which sales of such equity security may be commenced from covering the short sale with offered securities purchased from an underwriter or other broker or dealer participating in the offering.
- 1991 Exchange Act Release No. 29278. The Commission issues a Concept Release on Public Disclosure of Material Short Security Positions in connection with a rulemaking request received by the Commission from the Association of Publicly Traded Companies. The Concept Release solicits public comment on whether the Commission should require public reporting of material short security positions in publicly traded companies in a manner analogous to the then current reporting requirement for material long security positions.

⁵⁷⁰ See POLLACK, *supra* note 75.

⁵⁷¹ See also NASD Notice 86-69, *Amendments to NASD Rules on Short Sales Become Effective October 15, 1986*. (Oct. 10, 1986).

- 1991 Short Selling Activity in the Stock Market: Market Effects and the Need for Regulation (Part 1), House Report No. 102-414.⁵⁷² A House Report submitted by the Committee on Government Operations discusses several aspects of short selling, including the tick test. The report suggests that short selling has negative price effects that “can have important and lasting consequences” and asserts that the tick test is “effective in stabilizing the market for exchange-listed stocks for the benefit of issuers and investors.”⁵⁷³ The report also recommends that the tick test be extended to the NASDAQ market.⁵⁷⁴
- 1994 Exchange Act Release No. 34277. The Commission approves NASD Rule 3350 (the “bid test”) as a temporary rule prohibiting NASD members from effecting a short sale in a security at or below the current inside bid when this bid is below the preceding best bid. This prohibition applied equally to trades for customers and to trades for the member’s own account. The rule provided certain exemptions, including an exemption for qualified Nasdaq market makers, options market makers, and warrant market makers. The rule also provided exemptions similar to those provided under the tick test of Rule 10a-1.
- 1999 Exchange Act Release No. 42037. The Commission issues a concept release, requesting comment on the regulation of short sales of securities, including, among other things, eliminating the tick test of Rule 10a-1.
- 2003 Exchange Act Release No. 48709. The Commission proposes Regulation SHO (“Reg SHO”), which would: replace Rules 3b-3, 10a-1, and 10a-2; require short sellers in all equity securities to locate securities to borrow before selling; impose strict delivery requirements on securities where many sellers have failed to deliver the securities; and also institute a new uniform bid test allowing short sales to be effected at a price one cent above the consolidated best bid.
- 2004 Exchange Act Release No. 50103. The Commission adopts Reg SHO, which requires short sellers in all equity securities to locate securities to borrow before selling, and also imposes additional delivery requirements on broker-dealers for securities in which a substantial number of failures to deliver have occurred. The Commission also adopts a temporary rule that establishes procedures for the Commission to suspend temporarily the operation of the tick test and any short sale price test of any exchange or national securities association, for specified securities, to evaluate the overall effectiveness of such restrictions, and permit the collection of data on the impact of short selling in the absence of a price test.

⁵⁷² COMM. ON GOV’T OPERATIONS, SHORT-SELLING ACTIVITY IN THE STOCK MARKET: MARKET EFFECTS AND THE NEED FOR REGULATION (Part 1), H.R. REP. NO. 102-414 (1991), *reprinted in* Fed. Sec. L. Rep. (CCH) Number 1483 Part II (1992).

⁵⁷³ *Id.* at 15.

⁵⁷⁴ *Id.*

- 2006 Exchange Act Release No. 53128. The Commission approves the Nasdaq Stock Market LLC's application to become a registered national securities exchange. The Commission grants a temporary exemption from Rule 10a-1 to permit Nasdaq to apply the bid test under Nasdaq Exchange Rule 3350 to short sales in Nasdaq National Market securities occurring on the Nasdaq Exchange.
- 2006 Exchange Act Release No. 54891. The Commission proposes to remove the tick test of Rule 10a-1 and add Rule 201 of Reg SHO to provide that no price test, including any price test of any SRO, shall apply to short sales in any security and to prohibit any SRO from having a price test.
- 2007 Exchange Act Release No. 55970. The Commission removes the tick test of Rule 10a-1 and adds Rule 201 of Reg SHO to provide that no price test, including any price test by any SRO, shall apply to short selling in any security and to prohibit any SRO from having a price test.
- 2007 Exchange Act Release No. 56212. The Commission amends Reg SHO to further reduce the number of persistent fails to deliver in certain equity securities by eliminating the grandfather provision, an exception to the mandatory close out requirement of Reg SHO.
- 2008 July – Exchange Act Release No. 58166.⁵⁷⁵ The Commission issues an emergency order requiring all persons to borrow or arrange to borrow the securities of substantial financial firms identified in Appendix A to the emergency order prior to effecting an order for a short sale of those securities. This pre-borrow requirement expired August 12, 2008.
- 2008 September – Exchange Act Release No. 58592.⁵⁷⁶ The Commission issues an emergency order temporarily prohibiting any person from effecting a short sale in the publicly traded securities of certain financial firms identified in Appendix A to the emergency order. This prohibition expired on October 8, 2008.

⁵⁷⁵ See Exchange Act Release No. 58166 (July 15, 2008), 73 FR 42379 (July 21, 2008); *see also* Exchange Act Release No. 58190 (July 18, 2008), 73 FR 42837 (July 23, 2008); Exchange Act Release No. 58248 (July 29, 2008), 73 FR 45257 (Aug. 4, 2008).

⁵⁷⁶ See Exchange Act Release No. 58592 (Sept. 18, 2008), 73 FR 55169 (Sept. 24, 2008); *see also* Exchange Act Release No. 58611 (Sept. 21, 2008), 73 FR 55556 (Sept. 25, 2008); Exchange Act Release No. 58723 (Oct. 2, 2008), 73 FR 58994 (Oct. 8, 2008).

- 2008 September – Exchange Act Release No. 58572.⁵⁷⁷ The Commission makes immediately effective amendments to Reg SHO that eliminate the options market maker exception from Regulation SHO’s close-out requirement;⁵⁷⁸ makes immediately effective Rule 10b-21, a “naked” short selling antifraud rule;⁵⁷⁹ and adds and makes immediately effective a temporary rule to Reg SHO, Rule 204T, which generally requires that participants of a registered clearing agency close out fail to deliver positions at a registered clearing agency in any equity security for a sale transaction in that equity security by no later than the beginning of trading on the next settlement day after a fail to deliver resulting from a short sale (generally T+4), and no later than the beginning of trading on the third settlement day after a fail to deliver resulting from a long sale or a sale resulting from bona fide market making activities at the time of the sale (generally T+6). A close out is effected by purchasing or borrowing shares of like kind and quantity.⁵⁸⁰
- 2008 September and October – Exchange Act Release Nos. 58591, 58591A, 58724 and 58785.⁵⁸¹ The Commission issues a series of emergency orders and adopts an interim final temporary rule requiring disclosure of short positions on Form SH by institutional investment managers exercising investment discretion with respect to accounts holding section 13(f) securities having an aggregate fair market value of at least \$100 million. That disclosure requirement expired on August 1, 2009.
- 2009 Exchange Act Release No. 60388. The Commission adopts a permanent version of Rule 204T of Reg SHO, Rule 204.
- 2010 Exchange Act Release No. 61595. The Commission adopts Rule 201, which implements a short sale-related circuit breaker that, if triggered, imposes a restriction on the prices at which securities may be sold short such that short selling will be permitted only at a price above the current national best bid.

⁵⁷⁷ See Exchange Act Release No. 58572 (Sept. 17, 2008), 73 FR 54875 (Sept. 23, 2008).

⁵⁷⁸ See also Exchange Act Release No. 58775, 73 FR at 61690.

⁵⁷⁹ See also Exchange Act Release No. 58774 (Oct. 14, 2008), 73 FR 61666 (Oct. 17, 2008).

⁵⁸⁰ See also Exchange Act Release No. 58773 (Oct. 14, 2008), 73 FR 61706 (Oct. 17, 2008).

⁵⁸¹ See Exchange Act Release No. 58591 (Sept. 18, 2008), 73 FR 55175 (Sept. 24, 2008); Exchange Act Release No. 58591A (Sept. 21, 2008), 73 FR 55557 (Sept. 25, 2008); Exchange Act Release No. 58724 (Oct. 2, 2008), 73 FR 58987 (Oct. 8, 2008); Exchange Act Release No. 58785 (Oct. 15, 2008), 73 FR 61678 (Oct. 17, 2008).

Appendix E: Evidence on Short Selling and Market Quality

This Appendix contains a brief description of the academic evidence on the impact of short selling on market quality, particularly price efficiency and liquidity. This description is not comprehensive but supports the statements made in the body of report and the considered views of the Division.

A. Price Efficiency

Theoretical studies support the notion that short sellers promote price efficiency, finding that restrictions on short selling should lead to less accurate prices, higher volatility, and should hinder price discovery.⁵⁸² In particular, prices are unlikely to fully reflect the less optimistic views of short sellers or prices will incorporate those views more slowly.⁵⁸³ Finance theory also predicts that short sellers tend to be more informed than other investors, on average, because the relatively higher costs and risks of short selling deter uninformed investors from short selling.⁵⁸⁴ The empirical evidence generally supports these theoretical predictions, finding that short sellers are informed⁵⁸⁵ and promote price discovery,⁵⁸⁶ while short selling restrictions reduce price efficiency,⁵⁸⁷

⁵⁸² See, e.g., *supra* notes 59,65 and sources cited therein.

⁵⁸³ See e.g., Douglas W. Diamond & Robert E. Verrecchia, *Constraints on Short-Selling and Asset Price Adjustment to Private Information*, 18 J. FIN. ECON. 277-311 (1987).

⁵⁸⁴ See, e.g., *id*; BODIE, KANE & MARCUS, *supra* note 28.

⁵⁸⁵ See, e.g., Charles Jones & Owen A. Lamont, *Short Sale Constraints and Stock Returns*, 66 J. FIN. ECON. 207-239 (2002); Boehmer, Jones & Zhang, *supra* note 303; Diether, Lee & Werner, *supra* note 76; Engelberg, Reed & Ringgenberg, *supra* note 67; Merritt B. Fox, Lawrence R. Glosten, & Paul C. Tetlock, *Short Selling and the News: A Preliminary Report on an Empirical Study* (Columbia Law and Econ., Working Paper No. 364, 2010), available at <http://ssrn.com/abstract=1543855>.

⁵⁸⁶ See, e.g., Ekkehart Boehmer & Julie Wu, *Short Selling and the Informational Efficiency of Prices*, (Working Paper, Aug. 16, 2010), available at <http://ssrn.com/abstract=972620>; Adam V. Reed, *Costly Short Selling and Stock Price Adjustment to Earnings Announcements* (U.N. C., Kenan-Flagler Bus. Sch., Working Paper, July 2007), available at <http://public.kenan-flagler.unc.edu/faculty/reeda/reed.pdf>; Pedro Saffi & Kari Sigurdsson, *Price Efficiency and Short Selling*, 24 REV. FIN. STUDIES 3, 821-852 (2011).

increase volatility,⁵⁸⁸ and hinder price discovery.⁵⁸⁹ However, other empirical studies find that uptick-style restrictions do not impede price efficiency.⁵⁹⁰

B. Liquidity

The academic literature provides ample theoretical support for, and empirical evidence of, the importance of short selling for liquidity. As with market efficiency, some of the academic literature on short selling and market liquidity examines the impact of constraints on short selling. As noted above, the theoretical literature predicts that short selling constraints will keep uninformed short sellers from trading.⁵⁹¹ This can increase the likelihood that market makers trade with informed investors as opposed to uninformed investors thus increasing the adverse selection faced by market makers. Theory predicts that market makers widen bid-ask spreads when faced with greater adverse selection resulting in less liquidity.⁵⁹² The empirical evidence shows that strong restrictions such as the short selling ban indeed reduce liquidity. The literature on the ban

⁵⁸⁷ See, e.g., Jones & Lamont, *supra* note 585. Owen Lamont & Richard Thaler, *Can the Market Add and Subtract? Mispricing in Tech Stock Carve-Outs*, 111 J. POL. ECON. 227-268 (2003); Arturo Bris, William N. Goetzmann & Ning Zhu, *Efficiency and the Bear: Short Sales and Markets Around the World*, 62(3) J. FIN. 1029-1079 (2007); Eric. C. Chang, Joseph W. Cheng & Yinghui Yu, *Short-Sales Constraints and Price Discovery: Evidence from the Hong Kong Market*, 62(5) J. FIN. 2097-2121 (2007).

⁵⁸⁸ See, e.g., Ekkehart Boehmer, Charles M. Jones, & Xiaoyan Zhang, *Shackling Short Sellers: The 2008 Shorting Ban*, (Cornell U., Johnson Sch. of Bus., Res. Paper Series No. 34-09, September 2009); Saffi & Sigurdsson *supra* note 586. There is also evidence that short selling does not exacerbate volatility (see, e.g., Boehmer, Jones, & Zhang, *supra* note 303) and counter evidence that stocks that can be shorted are more volatile than when they cannot be shorted (see, e.g., Chang, Cheng, & Yu, *supra* note 587).

⁵⁸⁹ See, e.g., Bris, Goetzmann & Zhu, *supra* note 587; Boehmer & Wu, *supra* note 586.

⁵⁹⁰ See, e.g., Boehmer, Jones, & Zhang, *supra* note 303; Karl B. Diether and Kuan-Hui Lee, *It's SHO Time! Short-sale Price-tests and Market Quality*, 64(1) J. FIN. 37-73 (2009).

⁵⁹¹ See *supra* note 584.

⁵⁹² See Lawrence R. Glosten & Paul R. Milgrom, *Bid, Ask and Transactions Prices in a Specialist Market with Insider Trading*, 14 J. FIN. ECON. 71-100 (1985); Albert S. Kyle, *Continuous Auctions and Insider Trading*, 53(6) ECONOMETRICA 1315-1336 (Nov. 1985).

also provides evidence that market makers account for about 35% of short sales.⁵⁹³ On the issue of whether short sellers more generally supply liquidity, the finance literature finds that short sellers, on average, are contrarian and that they tend to supply liquidity through limit orders more often than other sellers when prices are rising and tend to demand liquidity less often when prices are falling.⁵⁹⁴

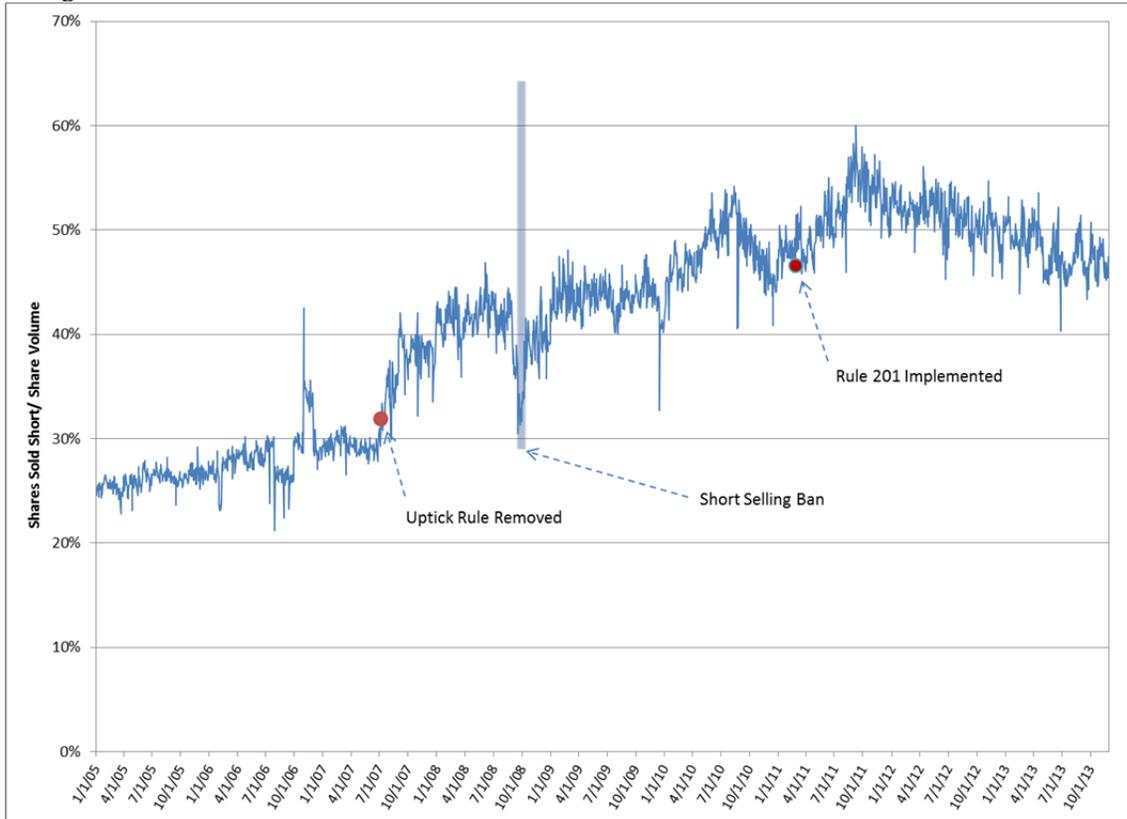
⁵⁹³ Boehmer, Jones, & Zhang (2009) find that short selling dropped 65% during the ban when only market makers were allowed to short. *See* Boehmer, Jones, & Zhang, *supra* note 303.

⁵⁹⁴ *See* AROMI & CAGLIO, *supra* note 48.

Appendix F: Exhibits

Figure F.1: Short Selling Levels: 2005-2013

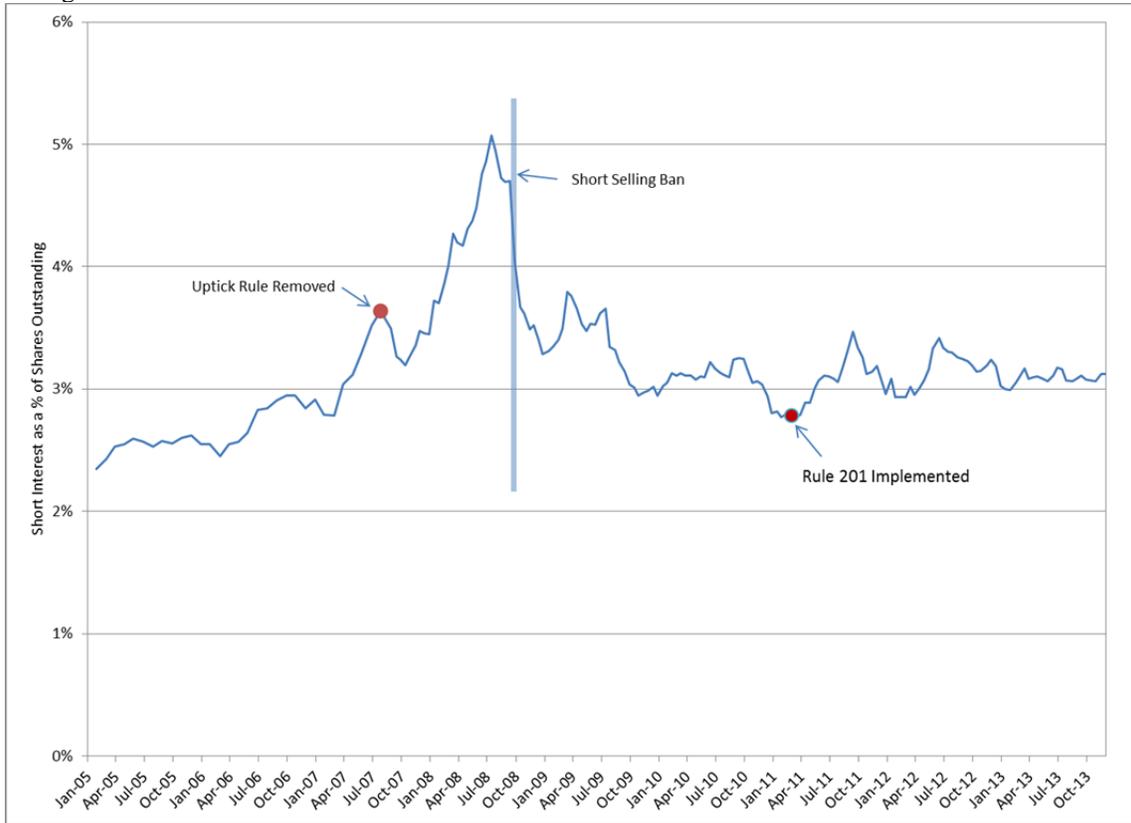
This figure shows the level of short selling in relation to total volume in shares for data from January 2005 through November 2013.⁵⁹⁵



⁵⁹⁵ Data Source: *See supra* notes 116-117.

Figure F.2: Short Interest: 2005-2013

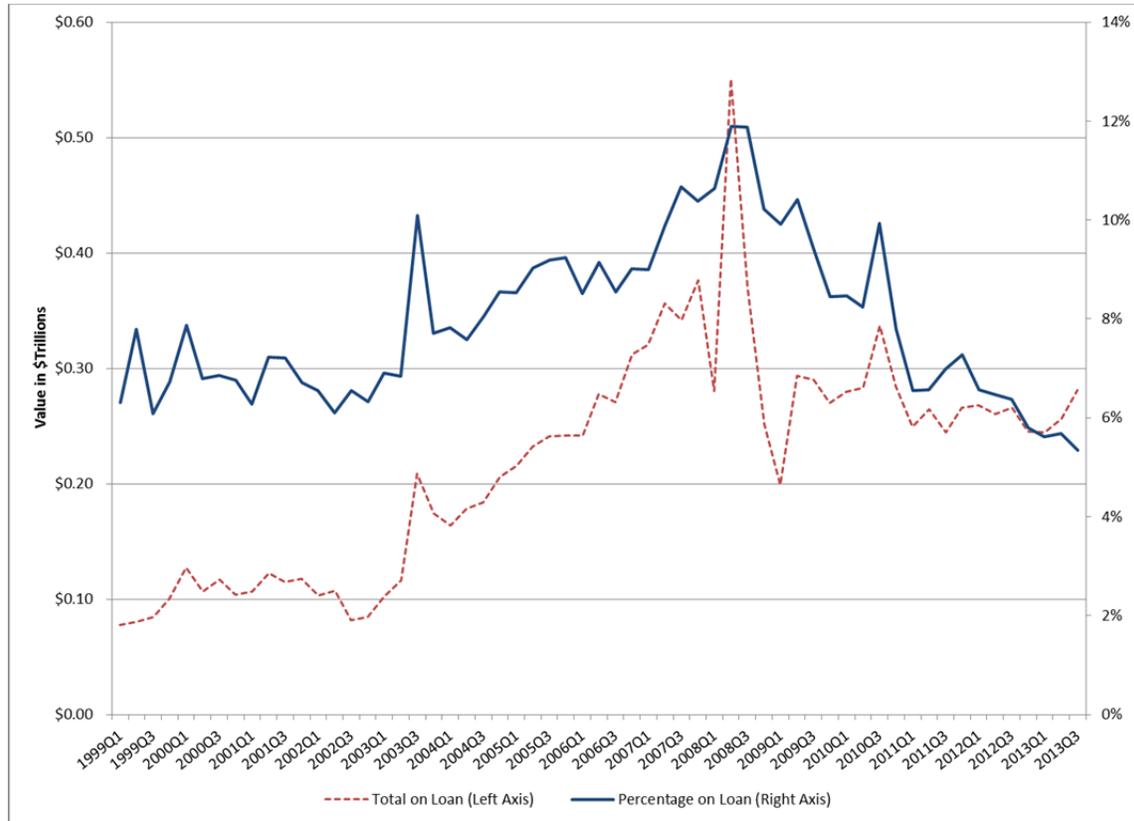
This figure shows the level of short interest in relation to shares outstanding for data from January 2005 through November 2013.⁵⁹⁶



⁵⁹⁶ Data Source: See *supra* note 99.

Figure F.3: Availability of Shares to Borrow: 1999-2013

This figure provides the total value of stock out on loan and the percentage of the total available for securities loans based on survey data collected by the RMA from 1999 through the third quarter of 2013. Data is from The Risk Management Association.⁵⁹⁷



⁵⁹⁷ See *supra* note 94.