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## The Trade-Through Rule

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Abstract. The trade-through rule mandates that when a stock is traded in more than one market, transactions may not occur in one market if a better price is offered on another market. Defenders of the rule portray it as an essential protection for investors, particularly small investors who find it difficult to monitor their brokers' performance. Opponents argue that its principal effect is anti-competitive; that it protects traditional exchanges - where brokers and dealers meet face to face on trading floors - from newer forms of trading based on automatic matching of buy and sell orders. In April 2005, the Securities and Exchange Commission (SEC) adopted new regulations modifying the trade-through rule, which it described as antiquated. The new Regulation NMS requires that investors receive the best price available among price quotations that are displayed electronically and immediately available for execution. The new rules also mandate improved market access, to allow brokers and traders in one market to get the best price for their customers, wherever that price is quoted. Since the adoption of Regulation NMS, both major U.S. stock markets, the New York Stock Exchange (NYSE) and the Nasdaq, have announced plans to merge with computer-based trading systems known as alternative trading systems (ATSs). This market response suggests that Regulation NMS may have its desired effect of increasing price competition by adapting regulatory structures to technological innovations that have transformed stock markets in recent years.



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## The Trade-Through Rule

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### Summary

The trade-through rule mandates that when a stock is traded in more than one market, transactions may not occur in one market if a better price is offered on another market. Defenders of the rule portray it as an essential protection for investors, particularly small investors who find it difficult to monitor their brokers' performance. Opponents argue that its principal effect is anti-competitive; that it protects traditional exchanges — where brokers and dealers meet face to face on trading floors — from newer forms of trading based on automatic matching of buy and sell orders. In April 2005, the Securities and Exchange Commission (SEC) adopted new regulations modifying the trade-through rule, which it described as antiquated. The new Regulation NMS requires that investors receive the best price available among price quotations that are displayed electronically and immediately available for execution. The new rules also mandate improved market access, to allow brokers and traders in one market to get the best price for their customers, wherever that price is quoted. Since the adoption of Regulation NMS, both major U.S. stock markets, the New York Stock Exchange (NYSE) and the Nasdaq, have announced plans to merge with computer-based trading systems known as alternative trading systems (ATSs). This market response suggests that Regulation NMS may have its desired effect of increasing price competition by adapting regulatory structures to technological innovations that have transformed stock markets in recent years. This report will be updated as events warrant.

The trade-through rule, on its face, is very simple: stocks traded on more than one exchange cannot be bought and sold for prices that are worse than other prices on offer. When this happens, the superior price offer is said to be "traded-through," or ignored. From the customer's pont of view, the rule is common sense — one would certainly not want one's broker to buy shares for \$40 in one market when there was a seller elsewhere asking \$39.90.

Nevertheless, the SEC on April 6, 2005, adopted a set of new rules, known collectively as Regulation NMS (for "national market system") that modify the trade-through rule, having cited a need to modernize a rule that had become antiquated as stock

markets were transformed by computer technology and other factors.<sup>1</sup> The original proposal, published in February 2004 was very controversial, and in December 2004 the SEC issued for comment a substantially revised version of Rule NMS. The reproposal was equally controversial, complicated by the fact that the SEC has put forward two significantly different models for consideration. Under the revised rule, linkages among markets that trade electronically would be improved to allow brokers to "sweep" multiple markets in search of the best price, and all markets would have to adopt policies reasonably designed to prevent trade-throughs. The final rule requires all markets to obtain the best price for customers from among price quotations that are electronically available and immediately accessible.

Changes to the trade-through rule have the potential to change the way stocks are traded in U.S. markets. The stakes are not small: in the short run, the question is who will handle a business worth hundreds of billions of dollars a year. In the long run, the issue is whether we have a stock market structure that provides the maximum benefits to the economy as an engine for capital formation, investment, and growth. The proposed Regulation NMS is a response to changes in market structure that have been driven by new technology and the increasing dominance of large institutional investors (such as pension plans and mutual funds).

There are three types of stock markets in the United States (although the distinctions become less clear all the time).<sup>2</sup> First, the traditional exchanges, where most of the action takes place on a trading floor where brokers and dealers meet face to face. Second, the Nasdaq, where traders are physically dispersed and dealers' offers to buy and sell are displayed and executed on computer screens. Finally, the alternative trading systems (ATSs<sup>3</sup>), which are essentially computers that match customers' orders to buy and sell without the intermediation of a dealer.

For practical purposes, the term "traditional exchange" means the New York Stock Exchange (NYSE). The NYSE accounts for 99% of the volume of all registered stock exchanges; its only significant domestic competitor is Nasdaq, which is not technically an exchange.<sup>4</sup> The controversy over the trade-through rule, however, is not primarily a matter of rivalry between NYSE and Nasdaq. Instead, a major issue is whether trading in NYSE-listed stocks will migrate from the NYSE floor to the ATSs, which now account for over half the trading volume in Nasdaq stocks, but only a small fraction of NYSE volume.

Inet, the largest ATS, handles about 25% of trading volume in shares listed on Nasdaq, but only 1% of trading in NYSE-listed shares. (Companies do not list their

<sup>&</sup>lt;sup>1</sup>See [http://www.sec.gov/news/press/2005-48.htm]. The SEC's original version of Regulation NMS, proposed in Feb. 2004, together with comments received, is available online at [http://www.sec.gov/rules/proposed/34-49325.htm]. The rule as reproposed in Dec. 2004 is available at [http://www.sec.gov/rules/proposed/34-50870.htm].

<sup>&</sup>lt;sup>2</sup> For a more detailed treatment of market structure issues, see CRS Report RL30602, *The Electronic Stock Market*, by Mark Jickling.

<sup>&</sup>lt;sup>3</sup> Also known as ECNs, or electronic communications networks.

<sup>&</sup>lt;sup>4</sup> Nasdaq is legally not a stock exchange, but a "national securities association."

shares on ATSs as they do on the NYSE and Nasdaq; ATSs are purely trading mechanisms.) This disparity, and the trade-through rule's relation to it, is at the center of the controversy over the proposed Regulation NMS. Opponents of the trade-through rule argue that the rule essentially confers monopoly status on the NYSE trading floor by requiring that orders in NYSE shares be "exposed" to the floor for 30 seconds to see if a better price can be found (called "price improvement") before they can be executed in other markets, including ATSs. In this view, the trade-through rule negates the advantages of ATS trading, which are speed, anonymity, and certainty of execution.

On the other hand, the NYSE and its supporters claim that the NYSE floor in most cases offers the best price, and that abolishing the trade-through rule would raise trading costs to investors. Both these arguments appear to be correct, but in different contexts, depending on the type of transaction involved. The preferences and needs (and market power) of large institutional investors are the key to understanding the dispute.

ATSs came into being to serve the needs of institutional investors. They offer extremely fast execution and usually match buyers and sellers directly. Unlike Nasdaq market makers and NYSE specialists — who stand ready to buy or sell at any time — an ATS does not bring its own capital to the market. ATS dealing can lower transaction costs by cutting out these middlemen, and in other ways. When a pension fund, for example, wishes to sell a large block of stock, brokerage commissions and dealer spreads are only part of the costs it faces. It must also consider the market impact of the order when it reaches the NYSE floor or a Nasdaq dealer — if the amount of stock to be sold exceeds current buying interest in the market, the price will fall, perhaps significantly, before the transaction is complete. An ATS offers the possibility of finding a single institutional buyer, so that market impact will not be a factor.<sup>5</sup> ATSs also allow their customers to trade anonymously, so that other traders are not influenced by the knowledge that a large institutional transaction is underway.

Other reasons why an institutional investor might prefer to trade through a superior price offered on the NYSE floor have to do with execution speed and certainty. Where an ATS may offer immediate execution, the better price offered on the NYSE may cover only a portion of the institution's order. In that case, the price is not "delivered" and the order is not executed. The trade-through rule requires that orders in NYSE stocks be sent to the floor for interaction with traders physically present there, during which time the market price may be moving against the institutional buyer or seller. Problems of speed and certainty of execution have worsened for institutional traders with the conversion to decimal pricing. When stocks are priced in pennies rather than eighths, there is less buying or selling interest at any given price, which both magnifies the market impact of large orders and increases the probability that prices will move before a trade is completed.

<sup>&</sup>lt;sup>5</sup> The "upstairs market" at the NYSE has for many years served this same function: brokers known as block positioners match institutional buyers and sellers, so that neither order will languish on the floor as prices deteriorate. The first ATSs replicated this function for Nasdaq stocks, and — with modifications to the trade-through rule — could plausibly attract many institutional trades that now go to the NYSE upstairs market.

Large institutional traders expect to benefit if the ATSs can capture significant volumes of NYSE trading, as they have in Nasdaq stocks. These benefits, for the most part, would not be shared by individual investors, or (in many cases) by smaller institutions. Small traders generally approach the market through multiple intermediaries, so a few seconds in execution time makes little difference to them. Their orders do not affect the market price. Their abiding concern is that their transactions costs will be higher than those paid by large traders and market insiders. For such market participants, the trade-through rule is a significant protection against collusion between brokers and dealers and other situations in which market insiders may take advantage of their public customers. However, because the largest institutions include pension funds and mutual funds representing millions of small investors, the trade-through issue cannot be framed purely as a conflict between large and small shareholders.

The issue can also be framed as speed versus price. Certain traders wish to be assured of receiving the best available price at any given moment, regardless of venue, while for others, speed is paramount, and (especially for large trades) the "best" price on offer may no longer be there by the time their order has been shopped around, as the trade-through rule requires. The SEC in its proposed rule changes has attempted to balance the interests of all market participants.

#### Regulation NMS as Proposed, Reproposed, and Adopted

Regulation NMS, as originally proposed, would have extended the trade-through rule from exchange-traded stocks to all markets,<sup>6</sup> and would have required all markets to establish policies and procedures reasonably designed to prevent trade-throughs. However, there would have been two significant exceptions to the rule: certain investors would have been allowed to voluntarily "opt out" from trade-through protections, and automated "fast" markets (where orders are executed by computers) would have been permitted to trade through superior prices offered on "slow" markets (principally the NYSE), where most transactions pass through the human hands of specialists and floor brokers. At the same time, the rule set limits on the ability of a fast market to trade through a slow market: if the slow market's price was better than the fast market's by certain dollar amounts (specified in the regulation), the trade-through could not take place.

On May 20, 2004, the SEC extended the comment period for Regulation NMS.<sup>7</sup> In this release, the SEC acknowledged several difficulties attending the original proposals, including the definition of "fast" market, the definition of an automated price quote, the sliding scale for the amount by which fast markets would be allowed to trade through non-automated market prices, and other matters. The second release suggested that the final rules might differ significantly from what the SEC originally proposed.

This was the case. A new Rule NMS was published for comments on December 16, 2004. Several key concepts of the original proposal — the opt-out and the distinction between fast and slow markets — did not appear in the revised trade-through rule. The

<sup>&</sup>lt;sup>6</sup> Nasdaq is legally not a stock exchange, but a "national securities association."

<sup>&</sup>lt;sup>7</sup> Text of release at [http://www.sec.gov/rules/proposed/34-49749.htm].

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revised rule focused on trade-through protection for limit orders, which the SEC's release described as "the building blocks of public price discovery and efficient markets."<sup>8</sup> If limit orders are traded through, the SEC reasoned, investors will not post them, and the market will become less liquid.<sup>9</sup> The revised rule asked for comments on two alternative forms of trade-through protections. The first, called the Market BBO (best bid or offer) Alternative, would require only that the best order publicly available not be traded through. The second, which is a more fundamental change from present practice, is called the Voluntary Depth Alternative. This proposal would extend trade through protection to all limit orders that a market chose to make public (on a voluntary basis).

How would the two alternatives actually work? Say a customer wants to buy 10,000 shares of Apple. The best offer in the market is for \$72.20 for 4,000 shares. Limit orders to sell 3,000 shares for \$72.25 and \$72.30, respectively, are on display. Under the Market BBO Alternative, the customer's broker would be obliged to buy the 4,000 shares, but could trade through the limit orders and pay a higher price for the remaining 6,000 shares. Under the Voluntary Depth rule, all three sellers' orders would be protected from trade-through, once they had been entered into an automatic display system.

The reproposed trade-through rule would apply only to bids and offers that were immediately accessible for automatic execution. In other words, prices quoted manual markets, such as the NYSE, would not be protected and could be traded through. This provision is more sweeping than in the SEC's original proposal, which put dollar limits on the amount of permissible trade-through of prices quoted on a "slow" market. ATSs and other automated markets could trade NYSE-listed stocks without regard for the prices quoted on the NYSE floor.

The final rule adopted the Market BBO approach: only the best price quoted in an electronically accessible format is protected. This means that electronic traders will not have to send their orders to the NYSE floor. They will be able to trade through NYSE quotes, unless those are automated and made available for immediate execution, as they are not at present. Soon after the SEC's adoption of Reg NMS, the NYSE announced plans to merge with Archipelago, one of the leading ATSs. The NYSE appears to envision a double market, where traders would be able to choose between sending their orders to the floor or executing trades on the automated ATS platform.

The new rules apply equally to all markets — they eliminate the distinction between Nasdaq and the exchanges. The rules mandate that an improved system of intermarket linkages be developed, so that traders have access to all automated quotations across markets, and can avoid trade-throughs. The new rules do not include any voluntary optout provisions such as those contained in the original rule proposal.

Regulation NMS will be phased in, beginning in April 2006 with a small group of stocks to demonstrate that the new systems work as intended, and then will be extended to all stocks and markets in June 2006.

<sup>&</sup>lt;sup>8</sup> Limit orders are orders to buy or sell at prices specified by the customer, as opposed to market orders, where the broker is instructed to buy or sell immediately at the going price.

<sup>&</sup>lt;sup>9</sup> Liquidity is the condition in which every buyer can easily find a seller, and vice versa. When liquidity is absent, price changes become more abrupt and unpredictable.

#### Pro and Con Arguments

The arguments in favor of the SEC's new regulation have been outlined in the discussion of institutional trading above. Large institutional investors want to have a full range of choices as to where and how to execute their trades. They view the former trade-through rule as an archaism which fails to consider two important factors: speed and certainty of execution. Effectively, in this view, the current trade-through rule acts as a barrier to competition whose major impact is to allow the NYSE to avoid adopting automatic market structures and mechanisms that have lowered trading costs in other markets. They point to the ETF market,<sup>10</sup> where the trade-through rule has been waived in an SEC pilot program, and NYSE and the ATSs compete head-to-head. It is reported that the NYSE floor handles only 5% of ETF volume, suggesting that significant volumes in listed shares may move to the ATSs as well.<sup>11</sup>

Opponents to the new rule, who include two of the five SEC commissioners, have argued that Regulation NMS represents an unwarranted government intrusion into market structure design. They point out that the markets have not been slow to adopt new technology, and that customers have benefitted in terms of lower transaction costs, better information, and better access to markets. By stepping into a highly competitive situation, opponents argue, the SEC risks putting a chill on future innovation. If, for example, the SEC imposes minimum execution times in its market linkage requirements, market participants may have less incentive to improve on that standard.

Shortly following the adoption of Reg NMS, both the NYSE and Nasdaq announced plans to merge with major ATSs. This quick response suggests that competition will remain a force in market structure decisions, and that the impact of the new rule may be profound. Given the history of mistaken predictions about the impact of technology (and regulation) on the stock market, it remains uncertain how the market will evolve over the next several years. NYSE floor traders and specialists may appear to be jeopardized by the new trade-through rule, but their obituaries have been written many times since the advent of computerized trading. Whether the new trade-through rule will have a major impact on brokers using Nasdaq and ATS markets (who were not formerly bound by the rule, but did owe their customers a duty of "best execution") also remains to be seen. Congress in 1975 required the SEC to "facilitate" the development of a single national market system. Regulation NMS is a major step in that direction, but certainly not the final word on the subject.

<sup>&</sup>lt;sup>10</sup> ETFs, or exchange-traded funds, are instruments that replicate popular stock indices, allowing traders to buy or sell the S&P 500 or the Dow Industrials in a single package.

<sup>&</sup>lt;sup>11</sup> "Test by SEC Supports 'Trade-Through' Critics," Newark Star-Ledger, Apr. 18, 2004, p. 8.