Chapter 17

THE 1997 NASDAQ TRADING RULES

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Abstract

Several important trading rules were introduced in NASDAQ in 1997. The trading reforms have significantly reduced bid–ask spreads on NASDAQ. This decrease is due to a decrease in market-making costs and/or an increase in market competition for order flows. In addition, in the post-reform period, the spread difference between NASDAQ and the NYSE becomes insignificant with the effect of informed trading costs controlled.

Keywords: NASDAQ trading rules; reforms; bid–ask spread; SEC order handling rules; the sixteenths minimum increment rule; the actual size rule; NYSE; informed trading costs; SEC

The National Association of Securities Dealers (NASD) was established in 1939. Its primary role was to regulate the conduct of the over-the-counter (OTC) segment of the securities industry. In the middle of 1960s, the NASD developed an electronic quote dissemination system, and in 1971, the system began formal operation as the National Association of Securities Dealers Automated Quotations (NASDAQ) system. By the mid-1980s, timely last-sale price and volume information were made available on the terminals. Through the late 1980s and the early 1990s, more functions were added to the system. For instance, the Small Order Execution System (SOES) was introduced in 1988, and the Electronic Communication Networks (ECN) was introduced in the 1990s. Services provided by the NASDAQ network include quote dissemination, order routing, automatic order execution, trade reporting, last sale, and other general market information.

NASDAQ is a dealer market, and it is mainly quote driven. On NASDAQ, the bid–ask quotes of competing dealers are electronically disseminated to brokers' offices, and the brokers send the customer order flow to the dealers who have the best quotes. In comparison, the New York Stock Exchange (NYSE) is an auction market, and it is mainly order driven.

Several important trading rules were introduced in NASDAQ in 1997, including the SEC Order Handling Rules, the Sixteenths Minimum Increment Rule, and the Actual Size Rule. The experimentation of the new rules started on January 20, 1997. The SEC Order Handling Rules were applied to all the NASDAQ stocks in October 1997. The Actual Size Rule was applied to 50 NASDAQ stocks on January 20, 1997 and 104 additional stocks on November 10, 1997. The Sixteenths Minimum Increment Rule was applied to all the stocks in NASDAQ on June 2, 1997. The following table provides a detailed implementation schedule for the new trading rules.

NASDAQ implemented the Order Handling Rules according to a phased-in schedule. On January 20, 1997, the first group of 50 stocks became subject to the Order Handling Rules. The SEC Order Handling Rules include the Limit Order

Table 17.1. New trading rules' implementation schedule

Date	Number of stocks affected by the rules	Rules implemented
01/20/1997	50 NASDAQ stocks	The SEC Order Handling Rules
	....	The Actual Size Rule
	The same 50 NASDAQ stocks	The Relaxation of the Excess Spread Rule
	....	
	All the NASDAQ stocks	
02/10/1998	51 NASDAQ stocks added	The SEC Order Handling Rules
02/24/1997	52 NASDAQ stocks added	The SEC Order Handling Rules
04/21/1997–07/07/1997	563 NASDAQ stocks added	The SEC Order Handling Rules
06/02/1997	All NASDAQ stocks with bid price not less than $10	The Sixteenths Minimum Increment Rule
08/04/1997	250 NASDAQ stocks added	The SEC Order Handling Rules
08/11/1997	251 NASDAQ stocks added	The SEC Order Handling Rules
09/08/1997–10/13/1997	800 NASDAQ stocks /week added	The SEC Order Handling Rules
10/13/1997	All NASDAQ stocks	The SEC Order Handling Rules
11/10/1997	104 stocks added	The Actual Size Rule

Display Rule, the ECN Rule, and the Relaxation of the Excess Spread Rule.

The Limit Order Display Rule requires displaying customer limit orders that are priced better than a market maker's quote, or adding them to the size associated with a market maker's quote when it is the best price in the market. Before the new trading rules, limit orders on NASDAQ were only offered to the market makers. The Limit Order Display Rule promotes and facilitates the public availability of quotation information, fair competition, market efficiency, the best execution of customer orders, and the opportunity for investors' orders to be executed without the participation of a dealer. By virtue of the Limit Order Display Rule, investors now have the ability to directly advertise their trading interests to the marketplace, thereby allowing them to compete with market maker quotations, and affect bid–ask spreads.

The ECN Rule requires market makers to display in their quotes any better-priced orders that the market maker places into an ECN. The ECN Rule was implemented partially because market participants had increasingly been using ECNs to display different prices to different market participants. In particular, NASDAQ was concerned that the reliability and completeness of publicly available quotations were compromised because market makers could widely disseminate prices through ECNs superior to the quotation information they disseminate on a general basis through NASDAQ Accordingly, the ECN Rule was adopted to require the public display of such better-priced orders.

Prior to January 20, 1997, NASDAQ continuously calculated for each stock the average of the three narrowest individual spreads among all dealers' spreads. The Excess Spread Rule (ESR) forced all dealers to keep their spreads within 125 percent of this average. On January 20, 1997, the ESR was amended for all NASDAQ stocks to stipulate that each dealer's average spread during the month could not exceed 150 percent of the three lowest average spreads over the month. The new ESR defines compliance on a monthly basis rather than continuously, placing no limits on the market makers' ability to vary their spreads during the month as long as their monthly average is in compliance.

The Actual Size Rule is a by-product of the Order Handling Rules. This rule repeals the regulatory minimum quote size (1000 shares). With the implementation of the SEC's Order Handling Rules, the 1000 share minimum quote size requirements impose unnecessary regulatory burdens on market makers. Since the investors are allowed to display their own orders on NASDAQ according to the Limit Order Display Rule, the regulatory justification for the 1000 share minimum quote size requirements is eliminated. So, it is appropriate to treat NASDAQ market makers in a manner equivalent to exchange specialists, and not subject them to the 1000 share minimum quote size requirements. On January 20, 1997, 50 pilot stocks became subject to the Actual Size Rule. These 50 stocks also became subject to the SEC Order Handling Rules. On November 10, 1997, the pilot program was expanded to an additional 104 stocks. After 1997, the Rule was implemented to all stocks on NASDAQ.

The Sixteenths Minimum Increment Rule requires that the minimum quotation increment be reduced from one-eighth to one-sixteenth of a dollar for all securities with a bid price of $10 or higher. On June 2, 1997, NASDAQ reduced the minimum quotation increment from one-eighth to one-sixteenth of a dollar for all NASDAQ securities with a bid price of $10 or higher. The reduction is expected to tighten quoted spreads and enhance quote competition. Furthermore, it complements the Order Handling Rules by allowing orders to be displayed in increments finer than one-eighth of a dollar. Specifically, the opportunity is increasing for small customers and ECN limit orders to drive the inside market.

Overall, all these new rules were designed to enhance the quality of published quotation, promote competition among dealers, improve price discovery, and increase liquidity. Under these rules, NASDAQ is transformed from a pure quote driven market to a more order driven market. Successful implementation of these rules should result in lower bid–ask spreads by either reducing order execution costs or dealers' profits.

Before 1997, a host of studies compared trading costs between NASDAQ and the NYSE based on the old trading rules. It is documented that bid–ask spreads or execution costs are significantly higher on NASDAQ than on the NYSE. Researchers debate whether NASDAQ bid–ask spreads are competitive enough to reflect market-making costs. Christie and Schultz (1994) find that NASDAQ dealers avoid odd-eighth quotes. This evidence is interpreted as consistent with tacit collusion, due to which bid–ask spreads are inflated above the competitive level. Moreover, Huang and Stoll (1996) and Bessembinder and Kaufman (1997) contend that higher spreads on NASDAQ cannot be attributed to informed trading costs.

Since the Securities and Exchange Committee (SEC) changed some important trading rules on NASDAQ in 1997, studies attempt to assess the effect of these reforms on market performance. Barclay et al. (1999) report that the reforms have significantly reduced bid–ask spreads on NASDAQ. Bessembinder (1999) finds that trading costs are still higher on NASDAQ than on the NYSE even after NASDAQ implemented new trading rules. Weston (2000) shows that the informed trading and inventory costs on NASDAQ remain unchanged after the reforms, and that the reforms have primarily reduced dealers' rents and improved competition among dealers on NASDAQ. He and Wu (2003a) report further evidence of the difference in execution costs between NASDAQ and the NYSE before and after the 1997 market reforms. In the prereform period the NASDAQ–NYSE disparity in bid–ask spreads could not be completely attributed to the difference in informed trading costs. However, in the postreform period the spread difference between these two markets becomes insignificant with the effect of informed trading costs controlled. In addition, He and Wu (2003b) examine whether the decrease in bid–ask spreads on NASDAQ after the 1997 reforms is due to a decrease in market-making costs and/or an increase in market competition for order flows. Their empirical results show that lower market-making costs and higher competition significantly reduce bid–ask spreads.

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