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# Specialists in the Stock Market

The stock market price "break" of October 1987 generated interest in the activities of certain members of stock exchanges called specialists. Currently, the exchanges assign each stock to one particular specialist firm, comprising one or more individual specialists. Each specialist firm maintains a post at a particular location on the exchange floor, which becomes the only location on the floor where the stocks assigned to the specialist are traded. Specialist firms are both brokers and dealers, and the exchanges compel the specialists to maintain a "fair and orderly" market in their assigned stocks.

This *Letter* examines the role of specialists, focusing on the question whether specialists' market power in their stocks generates economic inefficiencies in the stock market. Although the specialist firm's monopoly in handling trading in its stocks is likely to be consistent with economic efficiency, its exclusive access to information about orders is not.

## The role of specialists

As brokers, specialists execute other investors' orders, and are paid a commission. Specifically, they execute limit orders and market orders on behalf of other brokers. A limit order specifies the minimum price at which a customer is willing to sell stock (the ask price) or the maximum price at which the customer is willing to buy stock (the bid price). Specialists record all the limit orders for their stocks in computerized "books," executing each when the limit price is reached. Each specialist publicizes the highest bid and lowest ask prices for a particular stock. Market orders are then executed at the highest bid price in the case of a sell order, and at the lowest ask price in the case of a buy order.

Over time, specialists' role as dealers in the stocks they have been assigned has increased. As dealers, specialists buy and sell their assigned stocks for their own accounts, thereby making markets in these stocks. In fact, the exchanges require specialists not only to execute orders promptly, but also to maintain a "fair and orderly market" in their stocks. Specifically, the New York Stock Exchange (NYSE) rules stipulate that a fair and orderly market is one in which there is price continuity, reasonable depth, and minimum temporary disparities between supply and demand. Price continuity means that the prices at which consecutive transactions take place are not too far apart. A market has reasonable depth when large quantities of stock can be bought or sold without significant changes in price.

## Maintaining an orderly market

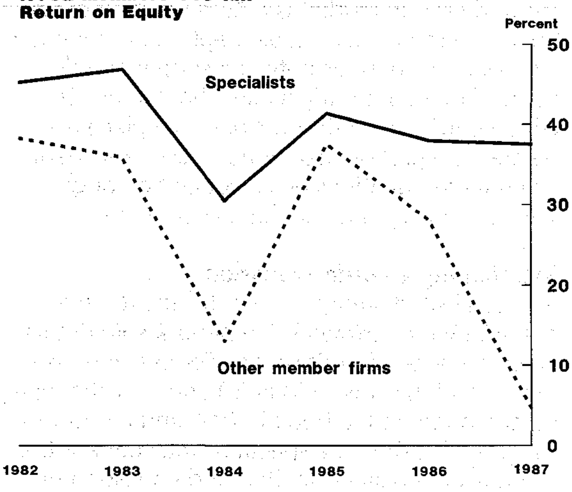
A specialist's dealings can contribute to price continuity by narrowing the bid-ask spread that is on the book of limit orders. For example, say that a stock has just sold at 50 and now the highest bid price on the book is 49¼ and the lowest ask price is 50½. The specialist may believe the stock is undervalued at 49¼ and choose to bid 49¾, narrowing the bid-ask spread by ½ point. If the specialist receives a market sell order, he will buy the stock at 49¾, which is ¼ point away from the last transaction price, instead of ¾ point. In this way, subsequent transactions frequently are closer in price to preceding transactions than they would have been without the specialist's intervention.

Specialists can obtain advance warning of temporary gaps in supply and demand at prices near the last transactions price by observing the limit orders. They can help reduce these gaps by entering the market on the buy side (by quoting a higher bid price than is on the book) when there are too many sellers and entering on the sell side when there are too many buyers. In so doing, specialists often deal for their own accounts against the trend of the market, buying when the market is falling, and selling when the market is rising. Such dealing provides depth to the market and has been referred to by exchange officials and others as "stabilization."

## Specialists' market power

Apparently, the activities of specialists are highly profitable. Occasional reports from the Securities and Exchange Commission (SEC) and the NYSE have indicated that specialists often enjoy unusually high rates of return. For example, the excess of NYSE specialists' pre-tax return on equity over that of other NYSE member firms ranged from 4 percentage points to nearly 33 percentage points over the past six years. (See chart.)

NYSE Members' Pre-Tax Return on Equity




Source: "Floor Traders Had Big Profit In Spite of Crash," New York Times, June 1, 1988.

Many observers complain that these high returns result from the undue market power of specialists. Specifically, each stock typically has only one specialist firm. In addition, only the specialist has access to the book of limit orders for his stocks. This information about the latent strength of demand and supply gives the specialist an advantage in bidding, thereby reducing competition below what it would be were the limit orders publicized. For example, knowing that there are buy limit orders on the book just below the current price limits the risk the specialist runs in buying for his own account. These anticompetitive aspects of the specialist system concern economists because they signal potential economic inefficiencies.

Although new stock issues are assigned to only one firm, there is no exchange rule that prohibits competing specialists from applying to be registered in a stock that already has been assigned to another firm. In the past, competing specialists were quite common and were prevalent in the most active stocks. For instance, in 1933 there were 466 stocks with competing specialists and in 1957, 228. By 1963, however, there were only 37 stocks with competing specialists. By the 1970s, specialist competition had disappeared, although there was a short-lived episode of competition involving eight stocks in 1986.

An SEC report in 1963 attributed the dramatic decline in the incidence of multiple specialists for a stock to an increase in the importance of the specialist's role as a dealer. In the late 1930s the NYSE began to compel specialists to act as dealers, imposing minimum capital requirements to assure that specialists had adequate financial resources for maintaining a fair and orderly market. Prior to that time, specialists primarily were brokers. In 1933, for example, the NYSE president defined a specialist as one who executes orders for other brokers in a particular stock. In contrast, the NYSE president in 1961 stated that ". . .the essence of being a specialist is dealing for his own account."

**Natural monopoly?**

Due to the specialist's more important dealer activities and responsibilities today than in the past, multiple specialists for a given stock may no longer be efficient for two reasons. First, as stated above, specialists are subject to capital requirements for each stock in which they are registered. For example, current NYSE rules state that a specialist firm must hold capital equal to $100,000 or the value of 1,250 shares of each stock the firm is assigned, whichever is greater. In practice, the specialist may need far more capital in order to maintain a fair and orderly market. This is the opinion of the SEC, which already has approved the NYSE's proposed trial increase in specialist capital requirements to the greater of $1 million or the value of 3,750 shares of each assigned stock.

In addition to substantial financial resources, specialists also must acquire a large store of knowledge about the market for each of their stocks today in order to deal in those stocks and thereby maintain a fair and orderly market. A single firm can spread the fixed costs of obtaining this information over a large number of trades more efficiently than can multiple firms.

Technological progress, including the introduction of computers, probably also played a role in the disappearance of multiple specialists. By increasing the number and size of orders that a given specialist firm can execute efficiently, technological progress has made multiple specialists in even the most active stocks unnecessary.

For these reasons, a single firm usually can produce the specialist's services for a particular stock at a lower cost per unit of service than can two or more firms. This naturally leads to monopolistic specialist firms. There is a concern that such monopoly power will lead to commissions that are higher and levels of output that are lower than would be desired for economic efficiency. However, economic theory tells us that monopolists will make the most profits by "price discriminating"—constructing a price *schedule* rather than setting a single price. Such pricing, which is common in securities markets, *can* result in a quantity of service that is consistent with economic efficiency. It is likely, therefore, that the monopoly enjoyed by specialist firms is benign in the sense that the level of service they provide may still be optimal.

**A proposal to promote competition**

If specialists were required to publicize their limit order books, competition would increase, thereby narrowing the bid-ask spread and increasing price continuity and the efficiency of financial markets. Some economists, however, see a problem with this proposal. They argue that specialists may become less willing to deal against the market and so provide stabilization if the rewards for doing so are not large. This is consistent with the view of the NYSE, which rewards its specialists by giving them exclusive knowledge of the book of limit orders, while maintaining a close watch on their activities.

However, other economists have suggested that stabilization is a natural by-product of dealers' profit-maximizing behavior, and therefore special rewards for stabilization are not needed. Economist Hans Stoll has found that dealers in the over-the-counter market, who are not closely monitored and to some extent share knowledge of all dealers' bid and ask prices, deal against market trends just as much as specialists on organized exchanges.

Critics of the proposal to expand access to the limit order book might also argue that such a change could reduce depth in the stock market. Any dealer attempting to buy or sell a large number of shares wants to conceal his intentions in order to prevent other dealers from trading on the information and diminishing the expected profits from his transaction. If the specialist's book were made public, dealers could hide their intentions to buy or sell a large block of shares only by dribbling out the transaction in small pieces, thereby decreasing depth. Some argue that limited access to the specialist's book and the specialist's duty to deal against the market currently minimizes the need for this type of behavior on the part of investors placing limit orders. On the other hand, orders from institutions, involving the largest blocks of stock, are negotiated off the floor, without the specialist's intervention. Publicizing the specialist's book would not affect the size of these orders, so the overall effect on market depth of expanding access to the specialist's book may be quite small.

**Conclusion**

Specialists usually have a monopoly franchise in their stocks that allows them to earn significant profits. However, the specialist firm has an incentive to set a schedule of commissions that results in a level of service that is economically efficient.

Currently, the NYSE is considering eliminating the specialist's exclusive access to the information contained in the book of limit orders. If limit orders were publicized, investors would benefit. Bid-ask spreads would narrow, thereby increasing the economic efficiency of the stock market. Price continuity also would increase, while stabilization, or dealing against the market trend, probably would not be affected significantly. Depth possibly would be reduced, but, overall, the stock market likely would remain "fair and orderly."

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