Postscripts by Academic Participants

Seymour Smidt
Cornell University
Richard R. West
University of Oregon
Hans R. Stoll
University of Pennsylvania
Robert R. Glauber
Harvard University
Morris Mendelson
University of Pennsylvania
Thomas E. Copeland
University of California, Los Angeles

POLICY ISSUES AFFECTING THE SURVIVABILITY OF REGIONAL MARKET CENTERS

Seymour Smidt

The Effect of Competitive Rates on Competition Among Market Makers

Under current circumstances, I would expect the elimination of fixed commissions on brokerage services to substantially reduce the volume of trading done on regional stock exchanges and in the third market. I believe that this will occur even if a composite tape and a composite quotation system are in effect at the time fully competitive rates go into effect.

If the volume of trading on these alternative marketplaces is sufficiently depressed they may disappear or may survive in a substantially reduced form. Some services they offer, such as clearing and bookkeeping, are

NOTE: Extract of statement before the Securities and Exchange Commission regarding proposed rules 19b-3 and 10b-22, November 20, 1974.

more likely to survive; but as trading locations, I expect these markets will suffer very hard times.

An important fact that must be kept in mind in assessing the probable impact of competitive rates on the regional exchanges and the third market is that brokers do not ordinarily check alternative marketplaces in determining where to execute orders. They may do this if a knowledgeable and valuable customer specifically requests it. But the average individual investor can expect to have his order executed in whatever market is most convenient for his broker, provided the execution thus obtained is not expected to be grossly inadequate.

There are several reasons for this practice. First, checking alternative markets is costly. This is true even when the quotations of competitive market makers are available to the broker through a computerized quotation system. Second, the cost of executing orders differs from one market to another. Other things being equal, a broker may prefer to execute a transaction on an exchange where he has his own floor broker, rather than pay floor brokerage fees to someone else. Similarly, there may be differences in clearing, communications, and other costs depending on which market is used. Third, under current practices, the brokerage commission rate charged to the customer is the same whether the broker makes an effort to obtain the best execution for his customer, or routinely forwards the order to the market that is most convenient for him. Fourth, many customers do not know that there are alternative marketplaces and that better execution can sometimes be obtained by comparing prices in alternative markets. Fifth, many customers who do know that alternatives exist may not know how to use a tape and quotation system to determine if the broker is attempting to provide him with best execution. Sixth, brokers believe that their failure to check alternative markets to obtain best execution will not subject them to civil damage suits from private individuals or to sanctions from the SEC or any self-regulatory agency.

Since brokers do not routinely check alternative markets to obtain best execution for their customers, a market maker cannot necessarily attract more business by making better markets. As a result, if the third market or one or more of the regional stock exchanges were to disappear after the introduction of competitive rates, one could not necessarily conclude that it disappeared *because* it was less efficient than its competitors. In the present circumstances competing markets may disappear even if they *are* more efficient than their competitors.

The public interest does not require preserving competitors. It does, however, require conditions in which more efficient markets and market makers are more likely to survive. Introducing competitive brokerage rates is not sufficient to achieve this result in the securities industry at the present time.

The Policy Alternatives

One possibility would be to attempt to enforce a requirement that brokers check all alternative markets before executing a customer's order. A disadvantage of this policy is that it would increase the costs to brokers of executing orders. These extra costs might sometimes exceed the expected benefit to the broker's customer. With competitive rates, these costs would become incorporated in the rates charged to customers. Another problem with this approach is that it is not clear to whom enforcement responsibility for such a rule should be assigned. None of the self-regulatory agencies is a disinterested party, and the SEC is not now in a position to enforce the requirement itself. An advantage of this approach is that it would encourage more effective competition among market makers. Also, it might provide some economic incentive which is now weak or wholly lacking for the development of more efficient means of displaying quotations and executing orders.

Another policy alternative would be to require that brokers fully disclose to their customers the practices they follow with respect to checking alternative markets. Can an agency founded on a philosophy of full disclosure object to disclosing to investors the services their brokers are providing for them? If full disclosure were required, brokers might give their customers the choice of paying a higher brokerage commission rate to get a chance of better execution or a lower rate with the order executed wherever it was most convenient for the broker. Even if a disclosure policy were adopted, it would be necessary to have some enforcement procedure so that a customer could be reasonably sure he was getting the service he was paying for.

A disadvantage of the disclosure policy is that it presumes the investor is in a position to make an informed choice. This is not the case for most individual investors. It would be interesting to know what the legal responsibilities of a fiduciary would be in those circumstances.

A third alternative would be to continue the current practices. That is, individual investors have no assurance that their brokers are providing best execution, but no effort is made to publicize this fact. I will not try to defend this policy, if indeed a defense were possible.

Whichever of these three alternatives is adopted as a short-run expedient, the long-run goal should continue to be creation of an electronic communications system with trade-executing capabilities. Such a system would permit effective competition between geographically separated market makers by exposing each of them to the entire flow of orders in the system. At the same time the system would drastically reduce the costs incurred by brokers to provide their customers with an assurance of best execution.

Such communications systems are technologically possible. However, they cannot be imposed on a major group of market participants against their will. Elimination of substantial elements of monopoly power among existing market makers is a necessary prerequisite to the creation of a communications system that will allow effective competition between geographically separated market makers.

REGIONAL CENTERS IN A CENTRAL MARKET ERA: SOME OBSERVATIONS

Richard R. West

It has become particularly apparent in recent years that the forecasting of economic developments is a most hazardous pastime. This being the case, it is with significant reservations that I put pen to paper in an attempt to speculate about the probable viability of regional centers in a central market system.

Although many differing opinions were expressed at the symposium, one common consensus was that the building blocks of a market system worthy of the title "central" must include: (1) a composite tape for reporting transactions and (2) a composite quotation system. In addition, most participants appeared to regard competitive commission rates and some form of interface between retail and wholesale market segments as essential ingredients in the creation of a central market. Finally, the participants most familiar with the so-called back-office operations of the stock market evidenced a conviction that an interface between competing clearing houses and depositories should be an integral part of a restructured marketplace.

In today's world, the phrases "regional center" and "regional stock exchange" are synonymous. Thus, it seems relevant to ask what might be expected to happen to the regional exchanges, as we now know them, in the process of creating a central market having the characteristics described above.

Perhaps the most apparent consequence of this process would be the demise of the regional "floors." A central market built around a computer tape and composite quotations will not be based on geographic centrality, but rather on electronic centrality. The book will be kept in (by) a computer, and orders ultimately will flow to and from spaces in computer memories. Sooner or later, the floors, posts, and all of the other trappings we now associate with stock exchanges will become quaint anachronisms. (I might add, incidentally, that the sooner they become anachronisms, the better. The computer capability to create a central market system already exists, and it should be implemented at the earliest possible time.)

The disappearance of floors and the like will not necessarily be accompanied by the demise of the market makers who now tread on them—at least not all of these market makers. The good regional specialists should be able to survive and prosper in a central market system. The composite quotation system will give them access to all of the order flow—something they now lack as regional specialists. If they can consistently make competitive markets, they should have no trouble demonstrating that capability (and thereby prospering) in such a system.

I must confess that prior to the symposium, I saw little reason to believe anything other than that the better regional specialists would survive the process of creating a central market. The discussion regarding clearing and settlements, however, opened my eyes to what may well be the most important role of regional centers in the future. I am referring, of course, to the possibility that innovative regional clearing and settlements systems will be able to compete effectively within an interfaced national system.

In summary, then, it seems reasonable to predict that the viability of regional centers will not be totally impaired in a central market system, but the nature of these centers will be very different from what it is today—so different, in fact, that it will little resemble that of today's regional stock exchanges. As I mentioned at the outset, however, predicting economic phenomena is a hazardous business; thus, I will not be particularly surprised if what seems "reasonable" today is quite different from what takes place in the future.

THE VIABILITY OF STOCK EXCHANGES

Hans R. Stoll

In the Long Run

In the long run there is, in my view, little role for exchanges as we have known them, be they the exchange located in New York City or the exchanges located elsewhere in the country. This is the result of (1) technological changes in communications and information storage that make unnecessary the face-to-face contact on the floor of an exchange, (2) the elimination of barriers and special privileges that have made exchanges economically beneficial to their membership after the need for traditional exchange organizations had passed, and (3) the increasing role of the SEC and nonexchange organizations (NASD) in certifying members, regulating conduct, and maintaining the financial integrity of brokers and dealers.

Securities markets have three functions: (1) they provide a communications network through which investors (or brokers acting on behalf of investors) determine bid and asked prices at which trading is possible and through which trades can be consummated, (2) they provide a clearing and record-keeping mechanism for exchanging ownership claims after a transaction has been agreed to, and (3) they usually provide a network of dealers who stand ready to trade immediately for their own accounts when investors cannot find other investors to trade with.

Consider first the role of exchanges in the communications system. A perfect communications system is one in which all buyers are aware of the asking prices of all sellers and all sellers are aware of the bid prices of all buyers. Therefore, every buyer and seller can trade at the best price to him. (Note that net prices may differ for two buyers because of differential communications, bookkeeping, clearing, or other costs.) No communications system is perfect because there are prohibitive costs to such perfection. However, greater perfection than we now have is possible. In the long run I anticipate a system like the one outlined by Morris Mendelson that consists of a national quotation system integrated with a single automated book (essentially a combination of NASDAQ and Instinet) with the capability of "locking in" transactions. This communications system will be like a road system along which firms can locate according to their best business judgment. Such a system may well lead to a geographical dispersion of securities firms, but it creates no incentives to belong to one of the exchanges, since individual firms can hook directly into the system.

Like the communications function, the function of exchanging ownership claims can, to a large extent, be automated. This conference has made clear how rapidly we are moving in that direction. In the long run, securities would be immobilized and ownership claims and transactions recorded and cleared at a central computerized facility in the way mutual funds now report ownership and transactions to their shareholders. To the extent that firms could join such a system directly (or through another firm) exchanges would be unnecessary.

Dealers—firms willing to quote two-sided markets for their own account and risk—have needed exchanges because exchanges were the communications system and, therefore, the source of business. When communications and clearing move outside the framework of existing exchanges, so will dealers. Like brokers, they will be users of these systems through which they will provide a service for which they will be compensated. And like brokers they will presumably be subject to competition from other firms.

The effectiveness of the clearing and communications systems depends on the degree of confidence in the financial integrity of firms using those systems. Customers must have complete confidence in brokerage houses if they are to leave shares in brokers' names. Brokers and dealers must have complete confidence in other brokers and dealers with whom they trade. Quotations are meaningful only if one has confidence in the financial integrity of the dealer making the quotation. Brokers and dealers can protect each other by suitable deposit requirements (i.e., deposits at the clearing association which are "marked to the market"). The public is partly protected against firm failure by SIPC (Securities Investor Protection Corporation). Although the regulation of financial integrity has largely been assumed by the SEC, there would seem to be a role for exchanges in raising levels of customer protection above government minimums, that is, exchanges could become associations of firms that self-insure and guarantee standards of behavior above those set by government regulation. In addition, exchanges could provide different levels of training and certification for salesmen.

Monopoly Versus Competition

There seemed to be general awareness at the conference of the dangers of moving to a national system of the kind I have just outlined. If there is a single communications system and a single clearing system, what incentives for innovation exist and what protection is there against exorbitant fees for the use of these systems? The best answer I have heard on this problem was Morris Mendelson's suggestion that there be separate national systems for different sets of securities. This is based on the assumption that a natural monopoly exists in centralizing orders for a specific security and not necessarily in centralizing orders for all securities and that maximum economies of scale are reached before all securities are in a single system. Adoption of this suggestion implies that broad-based securities firms might need several quotation terminals and would have to settle transactions with several clearing systems. This is no serious loss of economy since such firms would probably have several traders, each requiring a terminal under any circumstances; they would also tend to have a sufficient back-office volume and staff to justify dividing up the clearing and settlement function.

Separate national quotation and clearing systems may also give new life to exchanges as the administrators of these separate systems. How securities would be allocated among the systems is a difficult problem. I would suggest that corporations be allowed at the beginning of each year to choose the system on which they wish their stock to be traded.

Within each system, entry of brokers, dealers, and, I would argue, individual and institutional investors ought to be as free as possible. In terms of the road system analogy, anyone who can afford a car (meeting safety requirements) and the gas ought to be allowed to use the road. Individuals or institutions that find it economic to bear the costs of a terminal and the line charges ought to be able to enter quotes for their own account. (Whether institutions or securities firms ought to be able to act both as principal and agent is an important separate issue.) Opportunity for entry is an important protection against poor service or high fees of brokers and dealers in the system. There is a natural tendency for firms initially in the system to raise entry requirements that would open the road only to large operators. For example, it is likely that rules for dealers in the system would impose capital requirements, require two-sided quotes, require a commitment to make quotes for a specified period of time, etc. Such rules have laudable objectives, but if quotations in the system may be supplied only by firms meeting those rules, they have the effect of excluding small dealers, individuals, and institutions who may be in the market only periodically. This hurts those excluded and hurts the public by reducing the number of quotations. It would not be difficult to meet those laudable objectives while at the same time allowing free entry onto the quotation screen. Financial integrity can be guaranteed by deposit requirements at the time of trade, not by standing capital requirements. Professional dealers and occasional traders can be separately identified, and the size of trade each trader is good for indicated.

Transition

My view of the long run is a prediction, not a prescription. The markets ought to have an opportunity not to reach the long run I have outlined. They should be permitted to adapt to new technology and changing demands which none of us may be able to anticipate. In the words of Commissioner Loomis, "the central market system is a process, not an institution."

This view implies that procedural issues should take precedence over substantive issues. The tone of the conference and the position of the SEC (despite protestations to the contrary) and the Congress suggest that the reverse is true—that the kind of system we get is more important than the way in which we get there. Thus, there has been much greater emphasis on the substantive structure of the quotation system and the clearing system than on the elimination of barriers to entry and of special privileges which have tended to fix markets in their present mold. By failing to remove existing restrictions while imposing new ones, we are in danger of dictating a system that may prove inefficient.

SUMMARY COMMENTS

Robert R. Glauber

There was a time not so long ago when regional exchanges were relatively sleepy places, where securities of local and regional interest were virtually the only ones traded. But then during the 1960s and early 1970s, several of these exchanges were transformed into miniatures of the New York and American stock exchanges, with tapes showing trades in a host of familiar companies listed on the major exchanges. The primary reason for this transformation was, of course, the stubborn support by the major exchanges of fixed minimum commissions in the face of increasing trading activity by institutional investors and the consequent increase in the size (and profitability) of the average trade. Seeking a means of recapturing part of the profit derived from executing their trades, an increasing number of institutions executed trades, either directly or indirectly, on regional exchanges. Indeed, quite a few of those institutions actually became members of certain regional exchanges.

The changing role of the regionals has had the effect of making their economic viability increasingly dependent on the continuation of the fixed minimum commission structure. Although much can happen before May 1, 1975, it appears to most observers that fully negotiated rates will eventually be a part of the brokerage industry's structure—and sooner more likely than later. The new economic environment will, quite obviously, confront the regional exchanges with important challenges to their continued prosperity.

Where the bulk of trading will be done in this new commission rate environment is most difficult to forecast. Without the artificial incentives to divert trading to regional exchanges, a larger share of trades done on traditional exchange floors is likely to flow back to the major exchanges, with their greater liquidity. But the new central market environment is also likely to spawn new competing market makers who trade electronically, away from any traditional floor (as, for example, through NASDAQ). To prosper, or perhaps just to survive, in this new environment, the regional exchanges will have to provide services and facilities sufficient to stem the natural flow of trades away from their floors. The clearing services pioneered by the Midwest Exchange and the automated small-size (up to 199 shares) transaction system developed by the Pacific Exchange are examples of what can be done, but the pressures on regionals are likely to be most severe in this new, more competitive environment. Moreover, to the extent that the services offered by the regionals aim at clearing mechanisms rather than trading facilities, it is quite possible that these exchanges might survive in much altered form—for example, as regional trade-clearing service centers rather than trading floors.

Many impartial observers may conclude that the survival of regional exchanges depends on competitive economics and is not an issue of great public policy importance—let the chips fall where they may. Indeed, some of the panelists at this conference argued that the government (i.e., the SEC or the Justice Department) should not attempt to encourage the survival artificially of the regionals. Although I am substantially in agreement with this position, it leaves me a bit uneasy. There is at least one argument that suggests that the survival of a healthy regional exchange network is important to a well-functioning capital market and is therefore of very real importance to public policy.

I suspect, although I have little direct evidence to support the conclusion, that if regional exchanges go out of business there will be a decline in the number and vitality of regional securities market centers and their attendant populations of regional securities firms. While a number of well-managed and effective regional brokerage houses do exist in cities without important regional exchanges, I suspect such exchanges give focus to the local financial community and without these exchanges, such financial communities would wither considerably.

The continued existence of a large number of healthy, geographically dispersed regional brokers may or may not have much effect on the quality of transactions in the market for securities already issued, but it is likely to have important effects on the system that distributes new securities for companies that want to raise additional capital. The threat to the system that distributes new securities is not only that it will shrink in overall size as negotiated rates continue to force inefficient and marginally effective brokers to merge or go out of business. An equally important threat is that the remaining brokers will become increasingly concentrated in the traditional major financial centers. The demise of the regional exchanges would be both a reflection of this concentration and, perhaps to some degree, a cause.

It can be argued, with considerable validity, that the dramatic growth of institutional investors has made individuals a less important source of new capital and consequently, that a distribution system with outlets in every nook and cranny of the country is unnecessary. But even with the importance of institutions, there will be times when they are not in the market and individuals become a disproportionately important source of funds; an example is the distribution primarily to individuals of the Southern Company's issue of preferred stock, in fall 1974, which was made through a very large syndicate of brokers. Moreover, there are reasons to believe that certain institutions will in the future choose to invest a relatively smaller fraction of their new funds in equities in general and the equities of newly emerging firms in particular. The recently enacted pension fund legislation may well have the dual effects of making debt securities relatively more attractive than equities as investments for pension funds and of concentrating the funds' attention on the equities of the larger, well-established firms. If this is the case, the individual investor will become an increasingly important source of capital for newly emerging firms, and a distribution system that can serve individuals effectively will be crucial to the effective functioning of the capital markets.

There is nothing in this argument which suggests that a network of regional exchanges and brokerage firms will not survive if they are economically justified and required to make the capital markets function effectively. For this reason, I do not join others who have argued that regional exchanges and brokerages should in some way be subsidized (e.g., by the continuation of fixed minimum commissions). But by the same token, they should not be placed at a competitive disadvantage, particularly as the structure of the central market system develops. Several of the recent initiatives of the New York and American exchanges can be interpreted as attempting to do just that. I hope that such attempts continue to meet with regulatory opposition, so that the regional exchanges have a fair chance to survive, if indeed their survival is justified by economic realities.

THE IMPACT OF INDUSTRY REFORMS ON THE REGIONAL EXCHANGES

Morris Mendelson

The consolidated tape (CTS) and consolidated quotation (CQS) systems will give the regional exchanges greater exposure. How significant this exposure will be remains to be seen. News of large trades is quickly disseminated now throughout the industry, even in the absence of a consolidated tape. Smaller trades obviously will get more exposure. However, if the consolidated tape is to affect the regional exchanges significantly and positively, it will have to transmit a kind of information that indicates that regional markets are frequently better than the NYSE market. However, it is not clear how a tape can indicate which market is "better." A regional execution at a higher price than the last trade on the primary market might suggest that the regional exchange is providing a better market for sellers, but certainly not for buyers. The opposite will be true if the regional execution is lower.

While decline may be expected in trades in which the principals are attempting to avoid publicity and in trades executed for reciprocity, a certain amount of skepticism about these declines is warranted. In regard to the first, the gossip network appears to be quite efficient; in regard to the second, the NASD membership discount was supposed to kill regional trading, but there is little evidence that it has had much effect.

The effect of implementation of the CQS may be quite different. There is currently no efficient medium for disseminating regional quotes. It should be clearly understood that the ability of regional exchanges to attract orders will not depend on their maintaining narrower spreads than their competitors; it will depend on their posting better prices on one or the other side of the market. It is tempting to think that the advantage of competitive market making is that each market maker is forced to maintain narrower spreads. But that is not the only advantage. When there are multiple market makers, it becomes possible (and the more market makers there are, the more probable it becomes) that one or more of them will have a long position and that one or more others will have a short position. Under such conditions we should expect to find those in long positions making the better offers and those in short positions supplying the better bids. The combination of high bid and low offer may constitute a narrower spread than is provided by any single market maker. The critical factors in determining whether regional specialists will offer significant competition will be whether they do in fact provide better prices on at least one side of the market and whether they are ready to provide significant depth.

All the above creates a chicken-egg problem. Regional specialists can supply the depth only if they are exposed to a sufficient flow of orders, and they will be so exposed only if they supply the depth. However, in considering this problem one factor cannot be overlooked. The fortunes of the regionals are linked to the fortune of the NYSE. How the NYSE is likely to fare in the new environment must, therefore, be explored.

The combined reforms are highly likely to damage the viability of the NYSE as a trading floor. This damage is likely to come from the spread of market making, some exodus of member firms,[1] and the loss of some of the most effective specialists. Following are some of the factors that can cause a number of firms to drift into upstairs market making: (1) net trading is an efficient method of avoiding the problem of whether competitors will follow if a firm posts changes in commission rates; (2) institutional traders frequently want direct access to market makers; and (3) market making can be quite profitable.

Posting rates for institutional-sized orders poses problems. In the competitive environment that is likely to prevail, rates of competitive firms are likely to be the same, and it will be difficult to adjust rates to changes in the market environment. All firms will have to assess the current interest in trading and the probable flow of orders and then set their rates accordingly.

In institutional trading it is unlikely that any trading firm will be able to raise rates until all trading firms have arrived at a similar assessment of the situation. Unless some firm acquires the role of price leader (at the risk of exposure to antitrust prosecution), the process of adjusting rates may become cumbersome and slow. The most likely solution to the problem will be a move to institutional trading on a net basis.

After May 1, 1975, the pressure on trading firms to become market makers probably will intensify. The pressure on trading firms to engage in dealer activity already is evident in the activity of major firms such as Salomon Brothers and Goldman, Sachs. These dealers already indicate interest on both sides of the market on many stocks. In such stocks and in AutEx they stand ready to supply quotes on either side of the market on request.

If the regime of competitive rates is extended to intramember rates, the chances are great that the leading trading firms will withdraw from the NYSE. There would be little reason for them to remain because they could simply negotiate contracts with floor brokers to execute the orders they want to send to the floor.

The spread of market making would be damaging to the specialist. The logical strategy for the well-financed and competent specialist will be to go into general market making, or at the very least to insist on the elimination of NYSE Rule 113, which prohibits solicitation of orders from institutions. Specialists are handicapped by Rule 113 in trying to lay off takedowns. This in turn limits their ability to compete with block positioners and competing market makers. Specialists, however, have the advantage (in effect, the subsidy) of floor brokerage from agency orders. Major trading firms thus subsidize the specialists' market making. Rule 113 had a two-fold purpose. The first was to avoid a conflict of interest in which the specialist acts as agent for his own customers and for the customers of other member firms. The second was as a quid pro quo for Rule 394, so that rules 113 and 394 in combination became in effect an agreement between specialist and member firms that the specialist would not attempt to reach out and deal with the customers of member firms directly and that the member firms in turn would bring their orders to the floor of the exchange. A recall of either rule would put specialists in direct competition with member firms. Specialists fear that with such competition many firms would be unwilling to remain members and, in effect, subsidize their own competition. A recall of one rule will generate pressure to recall the other.

The NYSE thus seems in danger of losing its dominant position in the market. If it allows specialists to compete with its major members, those members will be tempted to resign; if it does not allow specialists to compete, the better ones will be tempted to leave the NYSE. Such an exodus would greatly affect the NYSE.

The spread of market making clearly means that a number of orders will no longer reach the floor. These include principal trades of the member firms, orders for execution at the opening (and some at the close), and many not-held orders. Of course, the relocation of most executions is subject to any price priority rule[2] that may be promulgated. The deflection of trading will undoubtedly affect the specialist's market-making potential in three ways:

1. It will reduce his income;
2. It will reduce the flow of orders against which he can lay off his position; and
3. It will cause some loss of his economic intelligence.

Items 2 and 3 require some elaboration. Insofar as the member firm engages in principal trades as a market maker, it obviously absorbs some of the orders against which the specialist might have laid off his own position. Insofar as the member firm matches orders at the opening or the close of the market, the specialist is hardly deprived of lay-off potential, nor does this type of matching create any trading imbalance on the floor. The possibility of not being exposed to not-held orders, however, does affect his lay-off potential.

The specialist's information set is not affected by the simple matching of orders upstairs. Such matches will be reported immediately, and the information will be available to everyone. His information set will be diminished by loss of awareness of some not-held orders. Finally, every market maker and dealer is an inquiry center. The larger the number of such centers that exist, the smaller the fraction of total information available to any one center.

With these considerations in mind, we can return to the question of the kind of markets the regionals are likely to provide. If the future of regional specialists looks promising, new and more venturesome capital may become available to them. At least for some stocks, the NYSE specialists would be hard to compete with. If leading specialists leave the NYSE in accordance with the scenario above, the relative position of the regional specialists will be improved.

The extent of exposure of regional specialists will depend in part on the nature of the auction trading rule the SEC eventually promulgates and on the nature of the routing device that is eventually used to implement that rule. There are two possible routing devices: a Centaur component and a NASDAQ component. Both systems would permit firms to select their own routing algorithms. However, a Centaur-based system will undoubtedly vigorously resist algorithms that do not send orders to the NYSE floor in the absence of better prices elsewhere or of specific overriding instructions. Even so, most firms are likely to direct small orders to the best market they can conveniently transmit them to. By the time a routing system is operative, a national clearing system also will be fully operative, so the cost of clearing through the clearing corporation associated with an exchange will not affect the decision as to where a trade should be executed. Most firrns undoubtedly will send routine trades to the best market that obtains at the time and will prefer a "local" exchange to one in another region when the quotes are identical. That probably will be cheaper for them. Frequently this may turn out to be a third-market firm rather than any exchange.

Intermediate orders may be more widely deployed. The exposure that the CQS provides for regional specialists will surely result in a larger flow of inquiries, at least initially. This will be the testing period for the regionals. If they provide depth, the flow of inquiries probably will continue and even increase. If they fail, the flow of inquiries will dry up. This brings us back to the chicken-egg problem.

The consolidated tape and quotation systems may create investor discontent. Consolidated tapes do not show the best market; they show only the last trade. Brokers may be embarrassed by directing trades to one market only to find that the next trade in the same or another market is better. If this gives discontent, there will be considerable user pressure to accelerate the implementation of the CQS.

The CQS will enable a broker to identify the best market as of a moment. A CQS will nevertheless give rise to two problems: the best market chosen for the execution of an order may no longer be the best market when the order arrives, and routing to the best market entails a severe mechanical problem. The first may be alleviated by solution of the second. If each firm has to solve its own routing problem, there will be a strong temptation simply to route to the primary market. It is not clear that firms with large volumes will have any other options. Under the circumstances, it is doubtful that the SEC will press a price priority rule. It may piously voice it, but it probably will not seriously attempt to enforce such a rule except in the face of gross violations.

That there will be an industry solution to the routing problem is much more likely. A routing device is one of the components planned for Centaur. It will permit firms to select their own routing algorithm and can be installed by mid-1976. The only thing that delays installation is the difficulty of getting firms to agree on message content. The Centaur routing device would permit orders to be directed to any exchange or to the NASDAQ system, and routing within the latter to the appropriate market maker would be made by NASDAQ. No routing delays are anticipated within the NASDAQ system. If NASDAQ can do this part of the job, it can do the whole job at a comparatively minor marginal investment.

Once the industry routing system is developed and implemented, the price priority rule can be substantially implemented by regulatory approval of the algorithms. Without automated execution, however, there is as yet no guarantee that the market to which an order is directed will still be the best one when it arrives. However, except when there is heavy trading in a stock, it is unlikely that the best market will be missed.

The speed with which automated execution is developed will depend on how the NYSE fares. Centaur's time frame calls for a fully automated central market, including completely locked-in trades, to be in operation before 1980. NASDAQ's horizon is no further away. If the NYSE does not fare well and the auction market is impaired, the SEC and possibly the industry will push hard for earlier implementation.

Since the contours of a central market with a consolidated book and automated executions are difficult to foresee at this early stage, it is hard to tell how the regionals eventually will fare. It is, however, difficult to see how any exchange can play an important role in the trading arena with automated executions.

I visualize three possible types of consolidated books: a federated system in which electronic books maintained by the regionals are linked by an automatic routing system, a monolithic system in which there is a single electronic book, and a unitary system in which there are a number of electronic books but the orders and quotes for any particular stock appear in one book only. In the federated system, orders for any particular stock can appear in any and all books. The regionals have a role to play in a federated system, but it is clearly the least efficient of the three. Indeed, it may turn out to be an electronic nightmare.

A monolithic system poses pricing problems and seems to lack incentives for remaining technologically up to date. These difficulties may possibly be overcome by periodically submitting the processorship to competitive bidding. The unitary system appears to be the most attractive. We may hope that if a given processor is allowed to handle only one book, the books will compete for listings.

It is hard to see what trading functions exchanges can perform in either the monolithic or unitary systems. The most I can foresee is that exchanges will provide the nuclei for clusters of market makers who hook into high-speed lines to the central computer the exchanges provide. They will, however, continue to operate regional depositories and clearing corporations. Exchanges may even continue to function as self-regulatory organizations, although it is not clear what justification there would be for regionally differentiated rules.

JAMPOT ECONOMICS

Thomas E. Copeland

This symposium has dealt with a great deal more than regional stock exchanges. It has been a conference on the future of a central market system. Hundreds of questions were raised, but even more interesting questions were not. One of the most important for the future of competition in securities markets is, How will the SEC be affected by a central market system? One of the most disturbing possibilities is that Dr. Frankenstein will have no control over his monster. And historically, the responsibility of control has not rested well in the hands of government regulatory agencies. Will the SEC have the jampot thrust into its hands by Congress? If so, how will the SEC be changed?

The participants at the symposium were carefully chosen. There was representation from brokerage houses, market makers, commercial banks, government, investment banking, and the academic world. Jokingly, the conferees were split into real-world participants (defined as those who have jobs and capital at stake) and unreal-world participants (lawyers, regulators, and academics). As an unreal-world academician with no particular ox to be gored, I would like to review the history of events preceding the current securities legislation before I speculate on the future of the SEC.

Organization of the Marketplace

One of the important features of a central market system is the proposed elimination of fixed minimum brokerage commissions on May 1, 1975. Actually, the elimination of fixed rates began in the 1960s with the development of high-volume institutional trading. As time wore on the monopsonistic power of institutional traders forced exchange members to give up a portion of their inflated commissions in one way or another. Apparently between 40 and 80 percent of the supposedly fixed commissions were remitted.[3] In 1968 the SEC eliminated give-ups. However, abolishing give-ups did not solve the problem, since the various purposes served by give-ups were quickly supplanted by "regular-way reciprocity," "institutional membership," "four-way tickets," and other evasive mechanisms. Rate competition was here to stay.

Coincident with the abolition of give-ups, volume discounts were instituted on securities exchanges. This history of events certainly did not hurt the regional exchanges. Between 1962 and 1968 the NYSE lost 12 percent of its volume to the third market and regional exchanges.[4] By 1971 off-board trading in NYSE stocks amounted to more than 26 percent of dollar volume on the exchange.[5] Although the issue is clouded by many factors, my guess is that the trend away from the NYSE will not be reversed by fully negotiated commission rates. There is little motivation for institutional traders located in Chicago, for example, to set up in New York if they can find similar services and obtain access through the Midwest Stock Exchange to a national market system at comparable cost at home. There is little reason for European traders to deal with New York instead of Boston if, by taking a trade to Boston, they are provided access to "the" marketplace. For these and other reasons the "regional" exchanges will not be driven out of business by competitive commission rates.

Another problem suggested at the symposium was that the elimination of fixed minimum commissions might cause research services to atrophy. This effect is not necessarily bad. To the extent that nonprice competition has encouraged superfluous research, its elimination will improve the welfare of investors. However, information is not without value. *Value Line* and Moody's *Handbook* will not likely disappear. It is not impossible to separate brokerage from research services and to price them independently.

Another issue is NYSE membership or even the value of owning a seat on any organized exchange. After all, one of the purposes of having an exchange is to restrict entry into the marketplace. This restricted entry provides an opportunity for monopolistic profits, and the discounted value of the monopolist's rent is the market value of a seat. It is tempting to argue that because of fully negotiated rates and unrestricted entry to a central market system the monopoly rents will be eliminated and the price of an exchange seat will fall to zero. Harold Demsetz pointed out at 1968 SEC hearings that competitive commission rates would not reduce the number of seats in the exchange, merely the price of a seat. Seymour Smidt gave the reason at this symposium. Any marketplace exists, at least in part, because of external economies of scale. You often see the phenomenon of an art walk, a jewelers' row, or a restaurant lane. These highly competitive businesses group together in a small area because suppliers can send one truck to the area, or because buyers know where to go. These same external economies exist for the execution, clearing, and retail operations of major stock exchanges. The use of exchange membership is simply a device to capture the rent on these external economies. Therefore, I believe that competitive commissions will reduce the monopoly profits of NYSE members but will not reduce the price of a seat to zero because of the value of the rent on the external economies of scale which exchange membership captures.[6]

Future Changes in the SEC

In addition to the elimination of fixed minimum brokerage commission rates there are three other main elements of the central market system: (1) implementation of a composite tape, (2) implementation of composite quotations, and (3) development of a more efficient, national, post-trade clearing system.

Questions concerning the composite tape and composite quotations can be handled together. Should there be competing tape and quote systems or can an argument be made for natural monopoly? Who will pay for the systems? Who will monitor access to them? Who will decide which stocks are listed or delisted? Where? Must all trades be quoted—even those netted against each other in the back rooms of odd-lot houses? Exactly what will go into the composite quotation system? Will it be simply bid and asked prices? Will number of shares be published? Will the name or identifying number of the trader be published? Will limit and stop orders be published?

These and other questions are critical in determining the type of central market system that will emerge. The NYSE will not be able to extend its self-regulatory function to other exchanges and to the third market. This was made crystal clear at the symposium. The arbiter of disputes and the party toward whom questions were directed most often was the representative of the Securities and Exchange Commission.

I am convinced that the major effect of the central market system will not be to make securities markets more competitive. That end had almost been accomplished anyway—through the growth of the third market, regional exchanges, and institutional investors, and through the system of give-ups. The SEC has acted only after the fact. Its function has been mainly to make competition more equitable.

A major impact of the central market system that appears to have been overlooked by the symposium's participants, however, is the strong possibility that pending legislation and other legacies of the struggle to obtain a central market system may change the fundamental character of the Securities and Exchange Commission by thrusting the jampot into its hands. Arbitration of disputes regarding the need for uniform rules and regulations among competing market centers almost surely will be required of the SEC. Who else could decide what goes into the composite quote, who will gain access to the tape and quote, what companies will be listed there, and whether or not all trades will be reported? These decisions amount to more than negative prerogatives. For the first time the Securities and Exchange Commission will have, and realize that it has, something of value to give or withhold. It will have the jampot.

NOTES

1. Unless the context indicates otherwise, the phrase "member firms" refers to members of the NYSE and does not include firms that are members of regional exchanges only.
2. In the SEC white paper, "Policy Statement of the Securities and Exchange Commission on the Structure of a Central Market System" (March 29, 1973), two basic trading rules were proposed. One, designated the "auction trading rule," would provide price priority protection for all public orders throughout the system. The term "price priority rule" is an alternative designation of the auction trading rule and has the advantage of being more descriptive of its content.
3. Alfred E. Kahn, *The Economics of Regulation: Institutional Issues* (New York: Wiley, 1971), p. 196.
4. Ibid., pp. 195–196.
5. SEC, *Annual Report* (1971) and SEC, *Statistical Bulletin*, February 1972, March 1972; "NYSE Competitive Position," *NYSE Special Membership Bulletin*, February 10, 1971; Donald E. Farrar, "The Coming Reform on Wall Street," *Harvard Business Review*, September–October 1972; and Farrar, "Toward a Central Market System: Wall Street's Slow Retreat Into the Future," *Journal of Financial and Quantitative Analysis*, November 1974, p. 818, n. 13.
6. Although it is not clear why, it is interesting to note that the difference between the price of a NYSE seat and a seat on one of the "regional" exchanges has decreased until the difference today is only about $45,000. The decreasing difference may reflect erosion of the monopoly rent which can be expected from a NYSE seat.