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The Future of Securities Markets

Beginning with the transatlantic cable that linked the London and New York markets for foreign exchange, a series of technological innovations has transformed the securities industry, changing not only patterns of financing, but also the regulation and governance of institutions that provide the infrastructure for financial flows. But the impact has been uneven. Trading floors have been abandoned in favor of an electronic interface in some stock exchanges, but not others (including the largest, the New York Stock Exchange). The Internet has transformed the brokerage business, but has had very little impact to date on initial public offerings. Greater international competition among exchanges has put increasing pressure on regulators to regulate more efficiently or face the prospect of regulating an increasingly irrelevant fragment of the securities industry.

What lies ahead for securities and other financial markets in light of all these and other developments? What other changes that affect the trading of financial instruments are likely in the near future? The Brookings Institution and the Wharton School of the University of Pennsylvania convened their fifth annual conference on financial services at Brookings in January 2002 to help answer these questions. This report summarizes some of the issues and conclusions that were discussed in papers presented at the conference, as well as some of the comments that were made by financial experts in attendance.

Is Stock Trading A Natural Monopoly?

A threshold question is whether recent technological advances are creating a natural monopoly for the largest exchanges, at least in their respective national markets, if not on a global scale as well. Ruben Lee of the Oxford Finance Group (U.K.) predicts a future in which trading is increasingly concentrated among a small number of exchanges. Although he believes that network externalities are important, Lee concedes that they may not be all powerful, and thus it is possible that the number of exchanges may proliferate simply because automated exchanges are so cheap to operate. Stijn Claessens, Daniela Klingebiel, and Sergio Schmukler of the World Bank Group find some evidence in support of this trend in the migration of listings from emerging markets to the largest industrialized markets. Indeed, they identify a sort of paradox of financial development in which the more successful a country is in strengthening its financial infrastructure, the more likely are its firms to list on larger, more liquid foreign markets.

In contrast, Marshall Blume of the Wharton School places greater emphasis on the differing needs of various categories of market participants and believes that this will lead to greater fragmentation of trading. He notes that liquidity-motivated traders (such as large index mutual funds) seek out separate markets in

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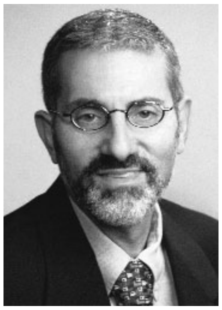

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which they are identified and can expect to get better prices than information-motivated traders (who are acting on the basis of new information and prefer anonymity).

Blume highlighted the tension between the Securities and Exchange Commission's (SEC) model of a national market system and the reality of a competitive global market in which it is impossible to define a best price and best execution without reference to the particular needs of each market participant. He emphatically rejects the notion that "one market fits all," and asked participants who the SEC should try to protect. He notes that the SEC appears to be excessively concerned with active retail traders who constitute a very small minority of retail investors. Although Blume perceives benefits in greater fragmentation, he has concerns, nonetheless, about maintaining transparency of the prices at which trades take place in an environment of increasingly fragmented markets.

John Coffee of Columbia Law School depicted a variety of ways in which market consolidation could occur. Some exchanges may merge, while others may develop cross-border affiliations to create supra-national exchanges such as those in Europe, where the Amsterdam, Brussels, and Paris exchanges have formed the Euronext network. Alternatively, some exchanges may expand globally. With outposts in Europe and Asia, NASDAQ appears to be following this strategy. In the end, it may be globally active brokers who determine the outcome by shifting orders to the exchanges in which they can be executed most efficiently.

Whatever the outcome for competition among exchanges, Paul Mahoney of the University of Virginia School of Law makes a case that securities will continue to increase in importance relative to other financing methods. He believes that technology will continue to increase the size and decrease the costs of trading in secondary securities markets and lead even more financial transactions to take place through securities markets. Although advances in information technology are surely reducing costs of other modes of financing as well, Mahoney argues that the relative impact of these advances favors the securities markets because it facilitates the separate offering of financial products and greater specialization in risk bearing.

Changes in Exchanges

Historically, exchanges have been, of necessity, physical places where traders met and negotiated transactions face to face. Traders worked to regulate themselves and enhance investor confidence in the integrity of markets. Membership fees rationed access to these early exchanges, where space was limited. High-volume traders chose to become members in order to take advantage of the ability to buy and sell in liquid markets and, in turn, became intermediaries for other market participants.

The economics of automated trading are undermining this traditional exchange model. An exchange no longer need be a physical place and so it is no longer necessary to ration access, as the marginal cost of adding an additional member is nearly zero. Ruben Lee suggests that in the future exchanges will no longer rely on membership fee revenue, but instead will find that trade data may prove to be an exchange's most valuable asset. If that scenario comes true, exchanges will behave like media companies and attempt to charge for the provision of information (although property rights over such data are and will be subject to dispute).

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Some observers believe that technological advances will lead to a stock market that may some day look more like eBay, the Internet auction site, with buyers and sellers interacting through a web site without the aid of brokers and dealers. But Paul Mahoney questions whether technology will make the functions performed by intermediaries in the securities markets unnecessary, noting that intermediaries play an important role as substitutes for formal contract enforcement.

Several exchanges have reacted to these technological changes by "demutualizing," or becoming, themselves, publicly traded companies. Benn Steil of the Council on Foreign Relations warns that many of these "demutualizations" have made little difference because members of the former mutual organization have ended up owning a controlling interest in the resulting, publicly traded exchange. He sees an inherent conflict of interest between brokers and investors and issuing companies. In his view, what matters is not the change to for-profit status, but the change in incentives that will occur when control shifts from the entrenched local brokers to other investors. Unless demutualization leads to a change in control, he argues that an exchange may fail to exploit fully the advantages of automated trading.

Steil also believes that a for-profit exchange is sufficiently equipped to carry out self-regulatory duties, which have traditionally fallen in three areas: (1) listing requirements; (2) assurance of fair and equitable treatment of customers; and (3) surveillance of member firms. Steil argues that a for-profit exchange will continue to have a strong interest in setting appropriate listing requirements for traded shares because many issuers are drawn to exchanges with stricter disclosure requirements and investors reward them for that, resulting in a greater volume of trading. He asserts that an exchange controlled by customers—investors and issuers—is likely to take an even stronger interest in fair and equitable treatment than a mutually organized exchange controlled by broker/dealers. Moreover, Steil believes that mutual exchanges have had a spotty record in conducting surveillance of member firms so that surveillance may actually be improved if brokers do not control the exchange.

Clearing and Settlement

Should an exchange own the facilities through which its trades are cleared and settled? Patterns vary internationally. Some participants expressed concern that because of the economies of scale in netting transactions and the management of collateral, the clearing and settlement function has the attributes of a natural monopoly and could convey monopoly power to those who control it. Indeed, one participant made an argument in favor of the mutual ownership to prevent exploitation of the users of clearing services.

Pat Parkinson of the Federal Reserve Board observed that there has been genuine progress in enhancing the safety and soundness of clearing and settlement arrangements through better control of legal and custody risks of those participating in the arrangements (counterparties). The Lamfalussy Standards, adopted by international regulators at the Bank for International Settlements, require risk controls that will enable the clearing and settlement system to withstand the failure of the largest participant and have been implemented in the most important systems. Additionally, a new group of twelve centralized counterparties (CCP12) is developing standards to address the full range of risks that they face. The key remaining challenge lies in the area of industrial organization: how should these facilities be owned and organized to promote competition and enhance efficiency?

The Role of Security Analysts

The United States has adopted a mandatory disclosure system that appears to give all investors a considerable amount of firm-specific information. Do security analysts add value to this information? After a year like 2000, in which the "sell" recommendations of security analysts outperformed the "buy" recommendations, the answer is not self-evident. Kent Womack of the Amos Tuck Business School at Dartmouth and Leslie Boni of the University of New Mexico identify pressures on sell-side analysts (who are affiliated with investment banks that underwrite securities) to be optimistic. First, investment banking has become increasingly profitable relative to the brokerage business and the prospect of gaining favorable coverage from a well-known analyst has proven to be a powerful incentive for issuers to switch their underwriting business to a firm that can offer such coverage. In support of this hypothesis, they note that an examination of performance of initial public offerings a year after the issue indicates that the recommendations of analysts affiliated with the lead investment banker have a far less stellar track record than the recommendations of independent analysts.

Second, analysts depend on access to firms to provide valuable context for information that is publicly disclosed and they fear that they will lose access if they express negative views about a company. Third, institutional investors would prefer that analysts not issue negative reports about companies they own.

In the face of widespread criticism, the investment banking industry has recently suggested new, "best practice" standards to enhance the credibility of security analysts. These include making sure that the research function does not report to the investment banking function, ensuring that the compensation of security analysts is not linked to specific underwriting deals, and curbing or significantly disclosing the analysts' own trading in shares they cover. Womack and Boni support greater disclosure of conflicts of interest, but are skeptical that behavior will change unless the link between the compensation of security analysts and investment banking fees is broken.

The lucrative IPO (Initial Public Offering) business may help explain why sell-side analysts produce optimistic "buy" recommendations, but it raises some troubling questions about the cost of issuing stock.

Some participants expressed optimism that the SEC's "Fair Disclosure" regulation would level the playing field and reduce the optimistic bias of sell-side analysts by removing the ability of corporations to deny access to analysts who do not issue favorable recommendations. Other participants expressed concern about whether the regulation was being enforced effectively.

Karl Groskaufmanis of Fried, Frank, Harris, Shriver, and Kampelman asked participants to consider who suffers harm because of this optimistic bias of sell-side analysts. Clearly, institutional investors understand the conflicts of interest and discount sell-side recommendations appropriately. The individual, retail investor may be less sophisticated and may not realize that a mere "hold" is really a "sell" recommendation, yet the optimistic bias of sell-side analysts is surely not as obscure as the implications of, say, off-balance-sheet limited partnerships. Groskaufmanis is optimistic that the Fair Disclosure regulation and greater disclosure of conflicts of interest will reduce the potential for harm to individual investors.

One participant objected to the notion that the optimistic bias causes minimal harm. He argued that conflicted advice is bad advice and that it contributes to an environment in which corporations attempt to manage earnings to meet increasingly optimistic earnings projections until they are forced to restate earnings and their share prices plummet as a result. He believes that the harm can be seen in the increasing number of earnings restatements and the increased volatility of share prices.

Questions About Initial Public Offerings (IPOs)

The lucrative IPO (Initial Public Offering) business may help explain why sell-side analysts produce optimistic "buy" recommendations, but it raises some troubling questions about the cost of issuing stock. Underpricing of IPOs increased over the 1990s, rising to an average of 65 percent during 1999-2000 measured as the first-day capital gain on newly issued shares. Should issuers be concerned? Press accounts indicate that issuers often celebrate the success of an IPO that appreciates sharply in price during the first day of trading. But Jay Ritter of the University of Florida makes clear that the money left on the table (approximated by the first-day capital gain) hurts the original shareholders of the company by unduly diluting their rights of control.

Evidently underwriters and buy-side clients benefit from systematically underpricing IPOs, but why do issuers tolerate it? Ritter dismisses the notion that underwriters underprice because they believe prices should be lower, by noting that analysts affiliated with the underwriter almost invariably issue buy recommendations after the price soars above its initial level. Nonetheless, one participant noted that the strict liability that underwriters face for a fall in price below the offering price might, nonetheless, lead to a downward bias in pricing.

Ritter is also skeptical that issuers view the underpricing partly as an advertising expense to capture investor attention about a new company and perhaps ensure better terms for a future offering. He notes that the amounts "left on the table" in some recent IPOs would have enabled the firm to purchase all the advertising on all televised football games for a year instead.

Another participant suggested that IPO underpricing might reflect an agency problem between owners and managers. Managers and venture capitalists tend to be less interested in what the stock is worth at the IPO than what it is worth six months down the road, at the end of the "lock-up" period, when they will be able to sell some of their shares. Accordingly, they are willing to trade off a lower IPO price—which will give the underwriter a valuable IPO to allocate—for a strong buy recommendation from a top analyst just before the end of the lock-up period.

Ritter believes that a broader application of the SEC's rules governing IPOs may reduce the scope for underpricing. Currently the SEC requires the disclosure of all underwriting compensation. But firms are not required to disclose the quid pro quos they receive for allocations of underpriced IPOs to favored clients. Ritter believes that issuers would drive a harder bargain if underwriters were required to report this indirect compensation, which can be a very substantial multiple of the direct compensation.

Lawrence Ausubel of the University of Maryland argues that rather than rely on underwriters for pricing of IPOs, issuers would be better served if their new issues were sold at auction, using some of the advances in modern auction theory. Auctions would improve the price discovery process, enhance efficiency, and increase transparency. Auctions have proven an effective way to extract full value for assets in other circumstances at least as complex as an IPO, such as the sale of rights to bandwidth broadcasting frequencies. Nonetheless, the few attempts in the United States to use auctions to distribute IPOs have met with only limited success.

Some participants argued that traditional intermediaries had been able to protect and even enhance their traditional market share because issuers value the bundle of services they provide, not just the ability to get funds at the lowest possible cost. These services include due diligence (which plays an important certification role), research (including perhaps a useful boost from research just before the end of the lock-up period), and access to a distribution network that may facilitate subsequent fundraising. Other participants argued that these services could be unbundled and priced separately. Indeed, the firm that has made the most serious effort to use the auction process to price IPOs also provided due diligence and research support.

Foreign Exchange Markets

The future of foreign exchange markets poses a strikingly different set of issues than the future of equity exchanges. Since the foreign exchange market is strictly over-the-counter, the question of mutualization versus demutualization simply does not arise. And because the market is entirely unregulated (and order flow could migrate quickly to unregulated centers if costly regulations were introduced), there are no pressing regulatory issues.

Over the past decade, technology has transformed the inter-dealer brokerage business. At the beginning of the 1990s, this was largely a telephone interface that accounted for roughly one-third of the volume of trading in the spot foreign exchange market. Screen-based, electronic inter-dealer brokers have largely replaced the telephonic network. This has provided customers with two ways of trading that did not exist at the beginning of the decade. Instead of calling a bank for a quote or to submit an order with a specified price limit (a limit order), the customer now has access to an electronic centralized limit order book. In order to protect their access to order flow, banks responded to this innovation by providing customers with screens that have several live quotes from multiple banks. So far, most customers have not chosen to transact with the centralized limit order book, preferring instead to rely on bank dealers as intermediaries.

Even though foreign exchange is the homogeneous, easily transferable kind of asset that one might expect to be more traded most efficiently in an auction-like market, dealer bank intermediaries retain a dominant role. Richard Lyons of the University of California at Berkeley argues that this stems from their comparative advantage in managing credit risk that allows them to handle problems of adverse selection and moral hazard more efficiently than auction markets. He believes that dealer banks would be willing to keep transaction costs below what an auction system could provide in order to maintain access to the order flow. The order flow has value because it contains information, in addition to the publicly available information on the macroeconomic determinants of exchange rates that makes possible a more accurate prediction of exchange rates. This can be exploited in the bank's proprietary trading, and perhaps even more profitably in foreign exchange advisory services sold to customers.

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The full versions of the papers discussed in this report will appear in The Brookings-Wharton Papers on Financial Services, co-edited by Richard J. Herring and Robert E. Litan, which will be published by the Brookings Institution later this year.

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Financial Regulation: What Lies Ahead?

What of the future of financial regulation, especially the regulation of "derivatives," or financial instruments (such as options or futures contracts) whose value is derived from some other asset? Frank Partnoy of the University of San Diego Law School notes that recent financial innovations have made it possible to synthesize virtually any financial instrument with over-the-counter (OTC) derivatives. OTC derivatives are governed largely by private rules, such as the standard form documents developed by the International Swap Dealers Association (ISDA), rather than by official regulations. Is the use of such private legal rules superior to public legal rules? Should the rules depend on the sophistication of the parties in the transaction? Is there a need for rules on who can enter the derivatives market? Is regulatory competition a destructive or creative force?

More broadly, various participants observed that the key regulatory challenges ahead will be global in nature. Questions include: How can officials guard against systemic risk in a globally integrated marketplace? How can national regulators prevent fraud? How can insider-trading laws be enforced? How do governments enforce tax compliance? How can shareholder rights be enforced? How can transparency be maintained when trading takes place around the globe?

As markets become increasingly global in character, these questions—which are now being debated on a national level—eventually will be considered at an international level. The future for analysts and policymakers will be a complicated one, as they contemplate these and other issues relating to the capital markets.

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