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Testimony by

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Mr Chairman and other members of the Subcommittee on Securities of the Senate Banking Committee, I am pleased to appear today to discuss the internationalization of securities markets. This subcommittee is to be commended for holding timely hearings on this important matter Our markets and financial system are evolving at a brisk clip, in ways that were not fully envisioned only a few short years ago

These developments hold a good deal of promise for the diversity of financial markets and instruments available to our investors. At the same time, they are enhancing the avenues of credit available to borrowers and the convenience and efficiency of financial services. However, these changes also are adding immensely to the complexity of our financial system and accordingly are posing new risks. With the memory of October 1987 still fresh in our minds, it is important that we stand back and review this process -- not only to take stock of what has happened but to understand better the economic causes of securities market globalization and to identify potential accompanying risks and ways to limit such risks We also must be mindful that our domestic financial institutions have much to contribute to this process -- and the considerable economic benefits that it produces -- and we must seek to ensure that their competitive position is not inappropriately hindered

In my remarks today, I would like to put trends in global securities market developments in some perspective, and to draw implications for financial risks I shall touch on the efforts underway to coordinate policies internationally and the question of legislation. In this way, I hope to address those issues suggested in your letter of invitation that seem to be most relevant to the Federal Reserve's concerns

Recent Trends

International transactions in securities have soared from levels earlier in this decade This is true both of foreign purchases and sales of U.S. securities and, to a somewhat lesser degree, U S transactions in foreign securities Transactions volume has been most dramatic in foreign purchases and sales of U S Treasury notes and bonds, which surpassed $3 trillion on a gross basis last year -- from $100 to 200 billion earlier in the decade. Foreign purchases and sales of U.S. corporate stocks and bonds also have been running dramatically above levels earlier in the decade, although they are off from peak levels of a couple years ago

Similarly, U.S residents have become much more active transactors in foreign bonds and stocks Purchases and sales of foreign bonds by U S residents exceeded $400 billion, gross, last year -- up about ten-fold from the beginning of the decade. Meanwhile, U.S. transactions in foreign stocks recently have climbed into the $200 billion annual area on a gross basis -- after some retrenchment in the wake of the October 1987 collapse -- which also is up about ten-fold from the early part of this decade.

Clearly, this surge in cross-border financial transactions has accompanied a large advance in cross-border trade of goods and services In the 1980s, growth of world output devoted to trade has continued to surpass growth of total output, although by a smaller margin than in the 1970s Thus, the share of output going to trade has continued to rise For the United States, the import share of our final purchases has moved higher in the 1980s, but there has been no discernable improvement in the export share of our output during this period of large external deficits

In financial markets, securities and open market paper have tended to play a more important role in the financing of such international transactions in recent years, and net securities purchases have represented the largest source of capital inflow into the United States to finance our large external deficits. Investors have become more familiar with foreign securities issuers through the greater availability of foreign products in local markets and through better information on foreign issuers made possible by vast improvements in information, aided by the revolution in electronic information processing and telecommunications. Moreover, the expansion of securities firms and banks into foreign markets, including their research function, adds to the information available to home country investors about foreign investment opportunities.

At the same time, issuers, seeking to minimize their funding costs, have increasingly over time tested external capital markets, most visibly the Euro-market. Furthermore, the growing sophistication of currency and interest rate swap markets has enhanced this process by enabling borrowers to issue instruments in fixed or floating form in the currency most desired by investors and to swap into the currency or form preferred by the borrower

An increasing array of securities -- most notably government bonds and corporate stocks -- is being traded in secondary markets outside the traditional market of the issuer Many of these securities are being traded at some point on the globe virtually around the clock, alongside foreign exchange, and this has been a factor behind the surge in transactions volume already noted. In many cases, financial futures and options contracts can be traded during these same hours, which facilitates a shifting of risk and an enhancement of market liquidity

Underlying Economic Forces

Behind these trends in international trade and securities transactions is a process that I have described elsewhere as the "downsizing of economic output " The creation of economic value has shifted increasingly toward conceptual and intangible values with decidedly less reliance on physical volumes. A half century ago, for example, our radios and calculators were bulky. Today, owing to modern electronics, they are tiny and light and capable of performing more functions. Thin fiber optics are replacing vast tonnages of copper and with higher fidelity in transmission Financial transactions historically buttressed with reams of paper are being progressively reduced to electronic charges Such advances not only reduce the amount of human effort required in making and completing financial transactions but facilitate more accuracy and promptness in execution.

The considerable increase in the economic well-being of most nations in recent decades has come about without much change in the bulk or weight of the gross national product. In fact, if all the weight of materials -- the tons of grain, cotton, ore, coal, steel, cement, and so forth -- we produce were added up, their aggregate volume per capita might not be much greater today than it was, say, 50 or 75 years ago This would mean that increases in the conceptual components of GNP -- that is, those reflecting advances in knowledge and ideas -- would explain by far the major part of the rise in real GNP in the United States, and presumably the industrial world as a whole

In part, this downsizing has reflected the economic need to conserve increasingly precious space Also, it has been a response to the need to reduce the costs of moving goods and services to their most highly valued use -- thereby conserving on energy, labor and other valuable resources. Further contributing to this process have been quantum advances in technology, spurred by economic forces. In recent years, the explosive growth in information gathering and processing techniques has greatly extended our analytical capabilities of substituting ideas for physical volume Since irreversible conceptual gains are propelling the downsizing process, these trends almost surely will continue into the twenty-first century and beyond The purpose of production of economic value will not change It serves human needs and values But the form of output will be increasingly less tangible

In the years ahead, telecommunications and advanced computing will take on an even greater role. They create value by facilitating the transfer of ideas -- that is they create value by changing the location of intellectual property -- much like the American railroads in an earlier time created value by transferring physical goods to geographic locations where they were of greater worth In today's environment, economic value is increasingly created by moving the conceptual part of GNP -- not coal or ore but data, analysis, and insights -- from one location to another through increasingly sophisticated electronic means.

Downsizing is having a profound impact on international trade, and the policies of the world's economies International trade in construction gravel and fiberglass insulation, for example, is limited by weight and bulk. High value computer-related products, on the other hand, are major and increasingly important components of world trade Obviously, the less the bulk, and the lower the weight, the easier it is to move goods.

It is not surprising, therefore, to find that after adjusting for average export price changes, pounds shipped per real dollar of exports have fallen an average of almost 3-1/2 percent per year since 1970 Pounds shipped per real dollar of U S imports declined even more, an average of 4-3/4 percent per year Reflecting the downsizing of tradable goods, the share of U S. foreign trade carried by air has doubled since 1970 On a global basis, the real value of trade has grown at a 5 percent annual rate over the past two decades, significantly outstripping the growth in world domestic demand In tonnage terms, of course, the increase has been far less

Consequences for Financial Markets

Clearly, as cross-border trade grows, gross surpluses and deficits on current account similarly can be expected to grow That is, owing to the forces that are acting to boost the share of output going to trade, net cross-border financial claims relative to GNP can be expected to rise

Moreover, new technology -- especially computer and telecommunications technology -- is boosting gross financial transactions at an ever faster pace than the net transactions required to finance current account deficits. Rapidly expanding data processing and virtually instantaneous information transmission capacity are facilitating in ways that were not feasible in earlier times the development of a broad spectrum of complex financial instruments which can be tailored to the hedging, funding and investment needs of a growing array of market participants Some of this has involved an unbundling of financial risk to meet the increasingly specialized risk avoidance requirements of market participants. Exchange rate and interest rate swaps together with financial futures and options have become important means by which currency and interest rate risks get shifted to those most willing to take it on. The proliferation of financial instruments in turn implies an increasing number of arbitrage opportunities, which tend to further boost gross financial transactions volume in relation to output

Portfolio considerations also are playing an important role in the globalization of securities markets. As the welfare of people in the United States and abroad becomes more dependent on the performance of external economies and exchange market developments, it is natural for both individual investors, and institutions which directly or indirectly manage the assets of individuals, to acquire or raise the weight of foreign securities in investment portfolios. Such diversification provides investors a means of protecting against depreciation of the local currency on foreign exchange markets and domestic economic disturbances affecting asset values on local markets. Clearly, as international trade continues to expand more rapidly than global output and domestic economies become even more closely linked to those abroad, the objective of diversifying international securities portfolios will become increasingly important. Moreover, since the U.S. dollar is still the key international currency, such diversification has been and may continue to be disproportionately into the dollar.

In summary, therefore, it would seem reasonable to assume that cross-border trading in securities will continue to expand rapidly for the foreseeable future. This implies that investors will wish to be able to adjust their holdings of foreign securities during times that coincide with their regular domestic trading hours. As a consequence, we can expect to see the move to around-the-clock trading extending to more securities

Already, we have virtually around-the-clock trading in various U.S. Treasury securities through global securities firms with offices in the Far East and Europe as well as in the United States Global markets for the securities of other governments are not at this time as developed as those for our Treasury securities; however, the potential exists for active around-the-clock markets in other government bonds, especially those of Japan and Germany. Such trading in securities creates a demand for hedging instruments -- especially financial futures and options -- and thus we are likely to see more such instruments that also trade outside regular domestic market hours.

In the corporate securities area, cross-border trading of shares of large multinational firms has become prominent, with considerable scope for adjusting positions outside the regular hours of the primary exchange on which the shares are listed. In many cases, these shares are listed on foreign exchanges -- for example, foreign American Depository Receipts (ADRs) are listed on the New York Stock Exchange -- or are tracked on a real-time basis, such as NASDAQ shares displayed on the terminals of International Stock Exchange members in London In other cases, a fairly well-developed over-the-counter market has emerged

While international securities activity has grown rapidly in recent years, trading systems have been undergoing changes -- generally to reflect advanced computer and telecommunications technology. For example, the International Stock Exchange in London moved to a terminal-based trading system at the time of the Big Bang in 1986 and the Paris Bourse has nearly completed its conversion to an electronic trading system

Electronic trading system technology has considerable potential for around-the-clock trading The GLOBEX system being developed by the Chicago Mercantile Exchange and the Chicago Board of Trade's Aurora system are good examples These exchanges have recently announced that they will combine their systems, and after-hours trading of some futures contracts could begin trading on the joint system this fall Already, the futures exchanges of Paris and Sydney have negotiated to put their products on the GLOBEX system for after-hours trading and others have expressed interest. This type of system could be adapted for trading other financial instruments.

As international securities trading has surged -- growing more rapidly than trade and output -- demands for clearing services across a wide range of financial instruments have soared, placing pressures on clearing and settlement systems Some of these pressures arise from the greater interdependence among clearing and settlement systems Investors today engage in a complex chain of financial transactions, often involving positions in both national and international markets, and difficulties in the clearing and settlement process in one of these markets can affect their ability to discharge obligations in others. We got a sense of such clearing and settlement problems in October 1987 when the options clearing system was weakened by large losses in the options market, and other difficulties emerged from inadequate coordination of "pays and collects" in the futures markets. A deficient clearing system in Hong Kong not only contributed to paralysis in that marketplace but cast a cloud over other markets as well.

The process of unbundling financial risk is a factor boosting the volume of financial transactions and hence increasing strains on clearing and settlement systems Through the use of futures and options, price or interest rate risk can, in effect, be unbundled and new synthetic instruments created by shifting risk to other parties, actions which raise clearing and settlement volume. Alternately, elements of risk can be transferred through interest rate and currency swaps; in these cases, such shifting can lead to hedging needs or to arbitrage opportunities that result in additional transactions in markets for securities and their derivatives and to enlarged clearing and settlement volume, with attendant risks to clearing and settlement systems.

Another important dimension to securities market risk resulting from growing internationalization is the emergence of large multinational securities firms that increasingly act as underwriters, dealers and brokers in securities markets around the globe A loss by one or more of these firms could impair that firm's functioning in other markets, thereby potentially transmitting a disturbance to those other markets Such a disturbance could have ripple effects as creditors and counterparties seek to reduce their exposure to these firms and as confidence erodes in the clearing and settlement systems in which these firms are participants Difficulties could also extend to commercial banks thought to have large credit exposure to such securities firms.

We observed the potential of such a problem emerge in October 1987 when it became evident to the markets that certain firms committed to the underwriting of British Petroleum shares in the United Kingdom stood to lose substantial sums. It is reported that for a brief period participants in the U S securities markets were cautious about dealing with these firms, a situation that could have gotten decidedly worse if the underwriting environment had not stabilized

If risks associated with cross-market and cross-border securities activities are to be contained, then it is critical that large investment firms have sound internal risk monitoring and control procedures in place. Moreover, there is no substitute for strong capital positions to act as a buffer for losses

It is worth noting that computer and telecommunications technology, while an important factor contributing to the globalization of securities markets and to certain financial system risks, can be used and is being used to limit risk. Information systems increasingly are permitting securities firms to monitor their global positions on a timely basis and virtually around-the-clock trading in some securities enables them to shed unwanted risk promptly Such technology also permits clearing systems to monitor member positions in their own markets on a timely basis and to share member position information with other clearing systems, thereby enhancing control of overall risk to clearing and settlement systems.

The trend toward globalization of securities firms and markets -- including the move toward around-the-clock trading in a growing array of securities -- not only provides investors with 24-hour capability to adjust positions but also provides the investor or brokerage firm with more choice of where an order will be placed Factors such as relative costs of trading in different markets, liquidity, and the timing of clearing and settlement systems thus may affect decisions about where to place orders.

Such opportunities for choice lead to more discipline being exerted on exchanges to control costs and enhance liquidity. To the degree that investors are concerned about the soundness and timeliness of clearing and settlement systems, discipline is imposed on the exchanges to strengthen their clearing mechanisms. However, to the degree that some markets seek to lower costs and add to volume at the expense of capital positions of securities firms or clearing system safeguards, risks may be posed for other markets and the global financial system more broadly. In other words, in an interdependent global marketplace externalities are significant and weaknesses in one financial center can pose serious problems for other centers

Implications for Coordination

The Brady Commission and others have characterized our domestic markets for stocks, index futures, and options as, in effect, functioning as one economic market. It is certainly clear that the market for some securities and their derivatives has, in effect, already become a unified global market and others are rapidly moving in this direction. Such international developments obviously require a considerable degree of international coordination just as we have learned that domestic markets for securities and their derivatives require a high level of coordination.

Both the private and public sectors have important roles to play in the coordination of securities market policies Among the areas needing attention are capital of dealers and underwriters, clearing, settlement and payment systems, circuit breakers, disclosure to investors, and accounting standards followed by securities issuers and intermediaries In addition, coordination of insider trading rules and enforcement of securities market laws are issues of significance in the area of securities market regulation and oversight To an important degree, more standardization in areas such as clearing and settlement and capital standards holds the promise of enhancing efficiency while at the same time strengthening market structures Moreover, coordination of policies in these areas will act to reduce the scope for so-called regulatory arbitrage -- that is, artificial reasons for investors or securities houses to favor one national market over others.

At the present time, a considerable amount of effort is being expended to coordinate within and across borders in these various areas In some cases, this involves regulatory authorities, in some other cases, it involves the private sector, and in still others, it involves a combination of both For example, there are a number of bilateral discussions between the SEC and securities market regulators in other countries on issues relating to the exchange of information and enforcement of securities market laws. Also, central banks have, within the context of their responsibilities for national payment systems, been addressing risks associated with securities clearing and settlement and are working to coordinate policies on payment system netting arrangements.

The International Organization of Securities Commissions (IOSCO), a group of national securities authorities, has established various working groups seeking to coordinate, among other things, accounting standards and capital requirements of securities firms The Group of 30, composed of private sector representatives from the securities and banking industries, recently advanced a constructive set of guidelines for securities clearing and settlement and now is in the process of seeking implementation The OECD has established a group of securities market experts focusing explicitly on the issue of systemic risk in global securities markets.

It is important to realize that the contributions that the private and public sectors can make differ, depending on the issue On matters such as clearing and settlement, the private sector has much to offer given its expertise and considerable self-interest in developing a sound global securities clearing and settlement system. Other areas, such as insider trading and enforcement, clearly require coordination among regulators.

Also, some matters are going to be resolved most effectively through bilateral approaches while others lend themselves to multilateral solutions. The nature and regulation of securities markets have been sufficiently diverse that a multilateral regulatory approach along the lines of the Basle agreement on capital guidelines for commercial banks may be difficult, given the entire scope of matters requiring coordination In any event, it is important that regulatory authorities continue to monitor overall progress in this area and seek to identify and address elements of weakness.

At the present time, it appears that progress is being made in key areas needing attention Given the diversity of traditional national standards, it may well take longer to reach agreements than we are accustomed to in our domestic financial system It is also likely that as these coordination efforts get further along, necessary legislative changes will become more evident.

Legislative Issues

This subcommittee has heard a great deal of testimony in recent months about steps that have been taken by our national exchanges and clearing houses to strengthen existing systems and to improve coordination among markets and market participants As these hearings proceed, you no doubt will hear many more ideas and concerns about the future direction of these markets.

It is encouraging that so many resources in the public and private sectors are being focused on these issues. It also is encouraging that so much can and is being done within the existing legislative and regulatory framework that oversees our financial system. With a notable exception, we at the Federal Reserve Board do not at this time see a need for major legislative changes of our securities laws and regulatory structure

In the previous Congress, the Senate had passed a bill that would have broadened the powers of banking organizations in the securities market area. We supported that bill on the grounds that our banking organizations have a lot to contribute to the development of a stronger and more efficient securities market, both domestically and globally The formula embodied in the Senate bill last year would enable our banks to become more competitive in these markets but in a manner that would not jeopardize the safety of the commercial bank entities or the federal safety net applied to the commercial banking system We trust the Congress will return to this matter promptly

In closing, the stability of our financial markets must, of course, at root, rest on the performance of the world economy Thus, at the very top of our consideration in maintaining a sound financial structure is the pursuit of sound economic policies, both domestically, and to the extent relevant, on a coordinated international basis At the same time, we must seek to strengthen that financial structure through appropriate market reforms, recognizing that even a system with formidable safeguards will be unable to insure against a disruption resulting from a massive speculative imbalance. Through the cooperative efforts of the private and public sectors, we can go a considerable distance in improving the safety and soundness of our financial market systems but we cannot realistically expect to eliminate all risks to these systems.

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