



**REMARKS OF
COMMISSIONER MARY L. SCHAPIRO*
UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

"THE DERIVATIVES REVOLUTION AND THE WORLD FINANCIAL SYSTEM"

**AT THE
EIGHTH ANNUAL SYMPOSIUM
FOR THE FOUNDATION FOR RESEARCH
IN INTERNATIONAL BANKING AND FINANCE**

LUGANO, SWITZERLAND

OCTOBER 14, 1993

***The views expressed herein are those of Commissioner Schapiro and do not necessarily represent those of the Commission, other Commissioners or the staff.**

**U.S. Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549**

In 1993, no symposium on the future of the world financial system would be complete without discussion of the impact of the financial innovations represented by derivative products and, in particular, over-the-counter derivatives. Recent data released by the International Swap Dealers Association reveals that 1992 notional value of interest rate and currency swaps approximated 4.7 trillion dollars, a 21% increase over 1991. Of course, this figure overstates the true credit exposure as measured by replacement cost, but the volume of business is nonetheless extraordinary, particularly when other over-the-counter products, including options, forwards, and various hybrid products, are added in.

The true measure of the impact of derivatives business, however, lies not in the raw numbers but in the ways that new instruments have capitalized on the easing of regulatory restrictions on cross-border activity. The net effect has been to strengthen economic linkages across markets and across national borders. If new issues of systemic risk can be effectively addressed, the derivatives markets may be able to help to provide the kind of stability that cross-border participants need to make long-term commitments of capital.

The effect of financial innovation in stimulating cross-border activity should be seen as a healthy economic development. The fact that export business accounts for one of every six U.S. manufacturing jobs indicates how important the risk management strategies offered by innovation are to economic growth. At the same time, as U.S. Federal Reserve Chairman Greenspan pointed out in a recent speech, financial innovation also has increased the potential for shocks to be transferred geographically and across markets. On the issue of whether these developments have, overall, increased or decreased the stability of the world financial system, I would agree with his assessment that the answer is not yet clear.

Securities firms are playing an increasingly important role in these markets. Based on recent data obtained by the SEC staff, it appears that major U.S. securities firms and their affiliates are annually booking approximately four trillion dollars in notional amount of off-balance sheet derivatives. I'd like to focus my remarks on the various risks posed by derivatives markets as seen through the eyes of a securities regulator and the ways the SEC is attempting to address these risks.

Derivatives activity fundamentally is concerned with the process of unbundling and repackaging credit and market risks in new ways. With respect to market risk, from the standpoint of a typical end-user, the critical question is whether the derivative effectively hedges an existing risk. From the standpoint of a dealer, the central issue is when and how to hedge. Some firms attempt to centralize all hedging across product lines, while others manage market risk within more limited units. Hedging strategies rely heavily on mathematical models, including options pricing models introduced in the 1970s. It should be remembered, however, that no matter how cleverly designed, models are only as good as the assumptions used to run them. In particular, the length of the historical period that is used to measure market risk may vary widely.

In addition, many products do not permit perfect static hedges at reasonable cost, and so dealers hedge much of their risk "dynamically," through trades in the cash markets. Further, in some cases they may choose not to hedge their entire risk, as a means of reaching for additional profit.

Undoubtedly, there is at least one big limitation on the effectiveness of any dynamic hedging strategy -- liquidity may not be

there when you need it most. The portfolio insurance debacle of 1987 showed that buyers in the listed markets may be reluctant to absorb the selling interest generated by non-transparent activities the size of which is unknown. This is an issue that is particularly relevant to the U.S. equity market. Of course, dealers with over-the-counter equity derivative positions may not all be lined up on the same side of the market, but there's a good chance that in a crisis, many of them will be trying to swim with the tide, and many may not make it to shore. The introduction of circuit breakers may serve to cushion the fall, but at the SEC we have learned not to underestimate the effect of derivatives trading on cash markets.

In the U.S., any derivatives activity involving securities is required to be conducted through regulated entities-broker/dealers, but in cases where dealers determine that securities trading is not involved, the activity often is conducted in unregistered affiliates, and there has been little reliable information concerning the exact size and structure of this segment of the market. Systemic concerns are especially acute where OTC products serve as a direct substitute for trading in listed markets, and where trades in the one serve as a necessary hedge or offset for positions in the other.

The credit risk inherent in derivatives trades yields a different kind of systemic concern. The evolution of the derivatives markets has been dubbed "the rebirth of credit intermediation," but it should be noted that the activity of intermediaries in these markets is more concentrated than in the traditional credit markets. For example, among U.S. firms, eight banks and a small number of securities firms presently account for the great majority of over-the-counter derivative transactions, and it appears that there is similar concentration on an international scale. Given this concentration, we should be concerned that a crisis involving any one major dealer could quickly and substantially affect the others. As one who saw the failure of Drexel Burnham Lambert up close, I can tell you from firsthand experience how quickly the well can run dry when liquidity problems arise.

Clearance and settlement issues pose yet another set of concerns. It seems ironic that the most sophisticated financial instruments presently operate under the least advanced system for netting and settlement of payment obligations. While I understand that some are legitimately concerned that clearing house arrangements could draw less responsible participants into the

market, there should be room to permit clearing agreements among dealers of high credit standing.

In addition to these risks, there is an additional concern over the adequacy of internal controls within large dealers. Apart from losses attributed to the legal uncertainty following the Hammersmith and Fulham case, in which a British court ruled that U.K. municipalities lacked authority to enter into swap agreements, the only notable losses from OTC derivatives activity thus far have stemmed from poor controls. Although none of these losses was catastrophic, increasing competition and product development will continue to put pressure on management and on compliance, back-office, and audit operations.

In order to address the concerns I have identified, the SEC, along with other regulators, is moving forward on a number of fronts. One of our most important tasks is to gather more information on the size of market activity and risk controls. The SEC has adopted rules under the Market Reform Act which, beginning this year, require securities firms that are part of a holding company structure to keep records concerning various consolidated risk factors. We also require firms to provide quarterly and annual reports that will, among other

things, allow us to view derivatives exposure of their firms and significant affiliates in various categories, in terms of both notional amount and replacement cost value. The Commission's staff presently is analyzing quarterly filing information being received from approximately 250 securities firms that have approximately 700 significant affiliates, denoted by the rules as "material associated persons."

With the benefit of this information, along with similar information provided to bank regulators, we will be in a better position to identify the various points of concentration and potential stress. Whether we ultimately will need to move toward greater oversight of the activities of the affiliates themselves is an open question and subject to extensive and healthy debate. I've read recently that the executive director of the Bank of England has suggested that derivatives subsidiaries should be regulated under the umbrella of consolidated supervision. Securities firms in the U.S. presently are not regulated under the kind of consolidated supervisory system that applies to banks and their affiliates, and I am not convinced that consolidated regulatory supervision of securities firms and their affiliates is necessary or appropriate at this time. There may be other ways to restrict risks to regulated entities, such

as early notice of substantial capital withdrawals by holding companies, which has been adopted by the SEC, that preserve the benefits to financial innovation that may result from a more flexible regulatory paradigm.

Regulators also can take a hard look at capital and margin requirements and their application to derivatives. As a securities regulator, I am a great believer in the value of strong capital and margin requirements in protecting customers as well as avoiding systemic problems. Based on historical experience, I do not believe that investors and markets are best served when these particular factors are left to market forces.

The SEC recognizes, however, that safety should be compatible with the efficient use of capital. Accordingly, we have to constantly reexamine how old regulations affect new business activities. In May of this year, the SEC asked for public comment on a broad range of issues relating to the appropriate capital treatment of derivative products under the Commission's net capital rule. In particular, the SEC is interested in possible benefits to alternative capital treatment for OTC derivative products. The goal is to find a balance that reflects the true risk posed by less conventional instruments, not to

grant them preferential treatment. Achieving this goal would provide flexibility to encourage over-the-counter activity to be conducted in home markets where the demand exists, without assuming unacceptable risks.

Margin rules also affect the ability of securities firms to conduct a derivatives business. The margin requirement for over-the-counter options in the U.S. generally is determined by the rules of the various self-regulatory organizations. These rules do not allow any value for long over-the-counter equity options, but require margin to be posted for short options. Under NASD rules, for example, firms generally are required to post margin of 45% of the underlying current market value of the short option plus the amount of the premium received. In addition, the Federal Reserve Board is in the process of reviewing the application of Regulation T to new and derivative products.

Regulators should encourage international efforts to harmonize accounting treatment of off-balance sheet items. Although the impact of derivatives contracts on an institution's financial portfolio can be material, specific accounting guidance is limited. As a result, accounting practices have developed by analogy and may not always

reflect the economic reality or allow investors to fully understand and evaluate attendant risks.

An important step in the direction of better disclosure is the issuance by the Financial Accounting Standards Board (FASB) of accounting standards governing the disclosure of information about the nature, extent, and terms of financial instruments with off-balance sheet credit or market exposure. Under these guidelines, public reporting companies are required to disclose the "fair value" of derivatives instruments and to provide other disclosures regarding off-balance sheet risk, such as maximum exposure, concentration of counterparty risk, losses in the case of counterparty failure, and collateral. Public companies that have material exposures as a result of current or contemplated transactions in derivatives also are required under Commission rules to discuss commitments and uncertainties that may have a material impact on liquidity or operating results in the future.

Also, regulators should encourage and promote the increased use of multilateral netting and clearing organizations. In the U.S., the netting issue has been addressed through netting recognition amendments to the bankruptcy and banking laws, but greater efforts

need to be made. Unfortunately the Commodity Futures Trading Commission in its exemptive release on swaps, declined to exempt from the full panoply of futures regulations, swaps that participate in clearing arrangements. I realize that this position may have been motivated by strong jurisdictional imperatives, but this seems one case where the failure to provide flexibility in asserting jurisdiction may impede the development of more stable, secure markets. In addition, it seems to me that the development of a clearance and settlement system is a particularly inappropriate context in which to conduct a gatekeeper function through interpretive letters.

Most important, the SEC and other regulators need to continue a cooperative dialogue and information-sharing with industry participants with a view to obtaining more information about the size and breakdown of derivatives activity and potential systemic stress points and establishing a consensus as to procedures and safeguards that should be implemented by participants. Studies presently are underway at the General Accounting Office and the Commodity Futures Trading Commission. The Comptroller of the Currency speaking before the Institute of International Bankers recently called for the creation of an interagency task force to look at accounting and capital standards. He expressed particular concern

about U.S. regional banks, with less sophisticated risk management systems, becoming more active in these markets.

Private organizations also are actively involved in studying these issues. Among the more notable efforts is the recently published report prepared by the Global Derivatives Study Group of the Group of Thirty. The report has served a useful purpose in proposing general standards of responsible industry practice. I must say, however, that I am less sanguine than the authors of the report with regard to systemic risk issues. In particular, the report appears to minimize liquidity, credit, and other risks, in part because the volume of derivatives activity has not yet approached that of listed transactions and because systemic problems have not as yet occurred. Before dismissing these dangers so casually, I think it is important to note that these rapidly maturing markets have experienced nearly exponential growth since the October 1987 market break and have not been tested under stress conditions that even remotely approach that episode. I also would note that a recent report by the International Monetary Fund sounds a much stronger cautionary note: "Experience suggests that rapid expansion of and concentration in a particular banking activity often signals both a

weakening of internal controls and an underassessment of credit risk."

In any event, the SEC welcomes the chance to draw on industry expertise to obtain data and gain insight on the derivatives markets as they evolve. Ultimately, however, regulators must make an independent determination with respect to the issues I have mentioned, realizing that those with a financial stake in the continued growth and prosperity of those markets may tend to downplay the risk of a reversal.

In sum, I think that the innovation and ingenuity that derivatives markets have brought to the world financial system are welcome. I also think, however, that it would be irresponsible for regulators to simply assume that unregulated markets necessarily will develop in such a way as to obviate concerns of systemic risk. Individual market participants are fully capable of making prudent decisions concerning their own business but they do not have a natural inclination or, more important, responsibility to look at the "big picture."

Regulators do not need to fear the brave new financial world of the 1990s but they do need to keep pace with it and anticipate problems before they occur. This approach will benefit all concerned, because nothing will interrupt the progress of the derivatives markets more abruptly than a financial crisis that is perceived to be caused or exacerbated by unregulated activity in those markets. With the appropriate mixture of caution, flexibility, and cooperation, all of us can look forward to a future that is stable, predictable, and productive.