

For release on delivery
9 30 a m EDT
May 25, 1994

Testimony by

Alan Greenspan

Chairman, Board of Governors of the Federal Reserve System

before the

Subcommittee on Telecommunications and Finance

of the Committee on Energy and Commerce

U S House of Representatives

May 25, 1994

Thank you for this opportunity to present the views of the Federal Reserve Board on the recent report on financial derivatives by the General Accounting Office (GAO). Derivatives activities have important implications for the global financial system and the world economy. The Federal Reserve has devoted considerable resources to understanding these implications and to working with other authorities in the United States and abroad to develop appropriate public policies. This hearing offers an opportunity to review the policy actions that have already been taken and to discuss the need for further action by financial regulators, central banks, or the Congress.

As suggested in your letter of invitation, I shall begin by setting forth the Board's overall views on the impact of derivative instruments on our nation's financial system. Then I shall identify the challenges that derivatives pose to users and to policymakers and discuss the steps that the Federal Reserve has taken or plans to take to meet those challenges. I shall conclude with the Board's assessment of the need for remedial legislation relating to derivative instruments. In the course of this discussion, I shall respond to the principal findings and recommendations contained in the GAO report **IMPACT OF DERIVATIVES ON THE FINANCIAL SYSTEM**.

The Board believes that the array of derivative products that has been developed in recent years has enhanced economic efficiency. The economic function of these contracts is to allow risks that formerly had been combined to be unbundled and transferred to those most willing to assume and manage each risk component. The importance of this function has increased, as competitive pressures have intensified in many economic sectors and as interest rates, exchange rates, and other asset prices have tended to be quite volatile. In

this environment, many financial and nonfinancial businesses, federally sponsored agencies, and state and local governments have concluded that active management of their interest rate, exchange rate, and other financial market risks is essential. They recognize that such risks, if left unmanaged, can jeopardize their ability to perform their primary economic functions successfully. Financial derivatives, especially customized OTC derivatives, allow financial market risks to be adjusted more precisely and at lower cost than is possible with other financial instruments. For this reason, many of these entities have come to rely on derivatives to achieve their risk management objectives.

While derivatives have enhanced the overall efficiency of financial markets and the economy, the Board recognizes that some derivatives are complex instruments that, if not properly understood and managed, can pose risks to individual users and possibly also to the overall stability of the financial system. The risks to individual institutions have been underscored by press reports of losses on certain derivatives contracts in the wake of the recent sharp increases in interest rates here and abroad. Case studies of these episodes undoubtedly will offer useful insights to users of derivatives and to policymakers. But, it would be wrong to draw sweeping conclusions from these events. Changes in interest rates and other market variables necessarily affect the fortunes of individual economic units. Many entities undoubtedly decreased their vulnerability through use of derivatives, and many others that elected not to use derivatives undoubtedly suffered losses.

The impact of derivatives on the stability of the financial system is a subject of ongoing debate. As I have noted, derivatives have allowed many businesses and governments to manage their risks.

more effectively. Nonetheless, several plausible scenarios have been identified in which derivatives activities could be a source of systemic disturbance.

First, the failure of a major derivatives dealer could impose credit losses on its counterparties that could threaten their financial health. To be sure, the failures of derivatives dealers that have occurred in recent years have not imperiled any counterparties. Nonetheless, concentrations of credit exposures to derivatives dealers, like any other concentrations of credit exposure, clearly constitute at least a potential source of systemic difficulties.

Second, the dynamic hedging of options positions and certain other risk management techniques lead market participants to buy assets when prices are rising and sell when prices are declining. In principle, such behavior could amplify market price movements. For example, some believe that hedging associated with "portfolio insurance" programs contributed to the stock market crash in October 1987. Aside from these unusual market movements, little statistical evidence supports the contention that derivatives activities heighten volatility in cash markets. Nonetheless, some discount the results of such studies because their concerns relate to very infrequent events. The price amplification effects of dynamic hedging may be significant only after large price shocks.

Even if derivatives activities are not themselves a source of systemic risk, they may help to speed the transmission of a shock from some other source to other markets and institutions. Linkages among financial markets, both domestically and internationally, have become considerably tighter in recent years. Derivatives have contributed to this development, although other forces--the increasing importance

of institutional investors, improvements in information and telecommunications technology, and the removal of capital controls by many countries--clearly have been at work. Given these tighter linkages, if a major international financial firm came under severe financial stress, authorities could face significant difficulties in containing the effects on other institutions and markets. At a minimum, success would require close coordination with relevant authorities in the home country and abroad.

CHALLENGES POSED BY DERIVATIVES

The Board believes that to realize fully the benefits of derivatives and to prevent systemic disturbances, several important challenges must be met. The first, and perhaps most important, challenge is for both dealers and end-users of derivatives to implement sound risk management practices. Sound risk management clearly is the key to protecting individual firms. Perhaps less obviously, it also is the key to addressing systemic risk concerns. Consider the two scenarios that were identified earlier in which derivatives could be the source of systemic problems. In the first, the failure of a derivatives dealer inflicts serious credit losses on its counterparties. What this amounts to is a concern that these counterparties will not have prudently managed their credit exposures to the dealer. The most effective preventive measure is sound risk management--in this case, the consistent application of counterparty credit limits to the dealer and the use of risk mitigation techniques, such as netting or collateralization. In the second scenario, dynamic hedging strategies used by option writers produce selling pressures that impair market liquidity and amplify price declines, and, in the event, render the dynamic hedges ineffective. Here the underlying concern is that option writers have presumed a greater degree of

market liquidity than in fact exists and thus have overlooked the pitfalls of dynamic hedging. The best preventive measure is the systematic conduct of stress tests that would highlight those pitfalls and discourage excessive reliance on such vulnerable hedging techniques.

A second important challenge is to improve the transparency of derivatives activities. Accounting, public disclosure, and regulatory reporting requirements have fallen far behind developments in the marketplace. Improvements in public disclosure would aid derivatives participants in assessing the creditworthiness of their counterparties and would allow shareholders to gauge more accurately the effects of derivatives activities on public companies' risks and returns. Regulatory reporting also must be strengthened. This includes reporting to financial regulators for purposes of assessing the safety and soundness of regulated institutions. It also includes reporting of data required for macroprudential purposes, including reliable measures of the size of derivatives markets and the degree to which dealing activity in various market segments is concentrated.

A third set of challenges involves ensuring that the legal and institutional infrastructure of financial markets can safely accommodate the growth of derivatives activities. The potential for legal enforceability problems to result in losses was brought home forcefully to derivatives dealers in 1991, when a British court decision to invalidate derivatives contracts with certain local authorities in the United Kingdom resulted in significant losses to some dealers. Legislation has substantially reduced legal uncertainty in the United States and several other important jurisdictions, although significant doubts about the enforceability of netting agreements persist in other countries. With respect to the

institutional infrastructure, the tightening of linkages among markets, to which derivatives have contributed, heightens the importance of strengthening settlement systems for primary and derivative instruments so that they contain disturbances rather than transmit them to other systems and their participants

STEPS TAKEN BY THE FEDERAL RESERVE TO RESPOND TO THE CHALLENGES

The Federal Reserve has taken a series of steps to strengthen the supervision and regulation of bank derivatives activities. As the central bank, with its overall responsibility for the soundness and stability of the financial system, we have worked to enhance the transparency of derivatives activities and to identify and eliminate legal uncertainties relating to derivatives and weaknesses in settlement systems.

In all of these efforts, we have worked closely and cooperatively with other regulatory authorities and central banks. Domestically, much of the work on banking regulation has been coordinated by the Federal Financial Institutions Examination Council (FFIEC) and, more recently, by the Interagency Task Force on Bank-Related Derivatives Issues. Also, since Secretary Bentsen asked the Presidential Working Group on Financial Markets to add derivatives to its agenda, this group has served as an important forum for coordinating government policy toward derivatives.

Internationally, the Federal Reserve has strongly supported, and frequently provided leadership for, cooperative efforts by the central banks and supervisory authorities of the Group of Ten countries. These have included the Basle Supervisors Committee's work on capital requirements, the Eurocurrency Standing Committee's plans to develop meaningful comprehensive measures of the size of the

derivatives markets, and the Committee on Payment and Settlement System's work on netting and other payment and settlement issues

Strengthening Supervision and Regulation of Bank Derivatives Activities

The complexity and diversity of derivative instruments and activities present significant challenges to banks and supervisors alike, as the GAO report points out. These challenges are being actively-addressed by the Federal Reserve, the other banking regulators, and the banking industry. The Federal Reserve's own efforts in this area date back to the introduction of OTC derivatives in the early 1980s, and these efforts have intensified in the last two years, as bank derivatives activities have expanded, especially at the largest banks.

It is important to recognize that significant advances in the management of market and credit risks, including improvements both in financial methodology and in the design of management information systems, lie behind the recent surge in derivatives activity. These advances have made independent, highly skilled risk management staffs and rigorous measurement and analysis of market and credit risks key elements of a sound risk management approach for trading activities, and more generally for banking activities. The Group of Thirty report, *Derivatives: Principles and Practices*, published last summer, lays out these elements, and banking companies in the United States and abroad are aggressively pursuing the goal of comprehensive, state-of-the-art risk management systems. These systems will, without question, greatly strengthen the banking system's resilience.

Such major advances in risk management and internal control also have important implications for our supervisory approach to derivatives and other trading activities. The Federal Reserve is moving swiftly to assess these implications and incorporate them into

our supervisory process. In adapting our supervisory approach, we face the more fundamental challenge of ensuring safe and sound banking practices, while preserving financial innovation, not only in products but, most important, in the risk management process itself.

The examination process. The cornerstone of our supervisory approach is the annual full-scope examination. In the past six months, the Federal Reserve has completed two important initiatives that we believe have substantially enhanced the effectiveness of our examinations of derivatives activities and of trading activities generally. Last December, the Federal Reserve issued a letter (SR-93-69) to each Reserve Bank that set out a comprehensive examination policy for trading activities of state member banks, bank holding companies, and other banking offices under our supervisory jurisdiction. The Reserve Banks were instructed to distribute this letter broadly to banks involved in derivatives activities. The letter highlighted, for both examiners and banks, key considerations in evaluating the adequacy of an organization's risk management process and internal controls. Although the statement focuses on trading activities by dealers, much of its guidance is relevant to the derivatives activities of end-users, especially its emphasis on the importance of oversight of the risk management process by senior management and boards of directors.

Earlier this year, the Federal Reserve also issued a new comprehensive trading activities examination manual. This manual provides extensive guidance to examiners on preparing for and conducting the examination of trading activities, including examination objectives and procedures, internal control questionnaires, and in-depth discussions of how to evaluate all aspects of a bank's risk management systems. In this last area

especially, we have substantially revised and expanded earlier examiner guidance to reflect recent advances in bank risk management practices

The manual also discusses at length procedures for evaluating internal controls in trading areas. For over two decades, internal controls have been an important focus of our examinations of banks with significant trading activities. The procedures we have developed rest on the extensive experience of our examination force and include the lessons learned from internal control breakdowns over this long period in a wide variety of trading operations.

Between examinations, the Federal Reserve actively monitors developments in trading and derivatives activities at the major banks in these markets. Supervisory staff at each Reserve Bank maintain close contact through meetings and telephone conversations with the management of the institutions they supervise. Supervisory staff also have ready access to management reports and other data not collected in quarterly reports of condition and income. During the volatile market conditions of the first quarter, for example, this access allowed the Federal Reserve supervisory staff to monitor the impact of market developments on bank trading activity and bank profitability.

The Board endorses the principles underlying the GAO's recommendations for strengthening the bank examination process. We believe our current coverage of risk management and internal controls in the annual full-scope examination meets the GAO's principal objectives. With the implementation of Section 112 of the FDIC Improvement Act, banking companies active in derivatives are further strengthening their internal controls to meet the act's specific requirements for independent, knowledgeable audit committees and internal control reporting. We believe that we have made significant

progress incorporating the internal control assessments by the board of directors, management, and auditors into our supervisory process, as the GAO recommends. The Board also agrees that bank supervisors should continue to enhance the information gathered in the examination process for trading and derivatives activities, and we believe our broad information-gathering power under our existing examination authority is an essential and adequate supervisory tool.

Capital adequacy The Board recognizes the key role that bank capital plays in protecting the deposit insurance fund from the market, credit, legal, and operational risks that banks assume and manage. The growth in bank derivatives activities is requiring changes in the methods that bank supervisors utilize to assess capital adequacy, including changes in the key risk-based capital measure.

As the GAO report notes, measures of the credit risks associated with OTC derivatives were part of the original Basle Accord that was published in 1989. Two significant enhancements to the current measures are under development. First, the risk-reducing effects of legally enforceable netting agreements would be recognized under a proposal issued by the Basle Supervisors Committee last year. Last week the Board and the Office of the Comptroller of the Currency issued for public comment a proposal to recognize such netting in its risk-based capital guidelines, and a coordinated proposal by all the U.S. banking regulators is expected to be issued shortly. Second, the Basle Committee is giving serious consideration to increasing capital charges for credit risk on equity and commodity contracts and on longer-dated derivatives contracts generally.

Market risks are not yet incorporated in the risk-based capital measure, and the Board agrees with the GAO's conclusion that this is a significant omission that must be addressed as soon as

possible. It is important to recognize, however, that this issue is as complex and difficult as it is important. Regulators traditionally have utilized relatively simple, generic models to measure capital adequacy. Last year, for example, the Basle Supervisors issued proposals for revisions to the Basle Accord for the market risks of trading activities in debt, equity, and foreign exchange that involved fixed and relatively simple rules. Likewise, efforts by U S banking regulators to incorporate interest rate risk into risk-based capital standards initially focused solely on simple models specified by the regulators.

Although the market risks of many banking instruments, including many derivatives contracts, can be accurately assessed using such simple models, a considerably more sophisticated approach is necessary to assess more complex instruments, especially those with options characteristics and to aggregate different categories of market risk. The recognition of the need for a more sophisticated approach has led banking regulators in the United States and abroad to explore carefully the potential for allowing banks to use their own internal models to assess the need for capital to cover market risk.

Under such an approach, regulators would specify the magnitude of the market shocks that they expect banks to be able to withstand. The banks would then use their internal models to simulate the effects of such shocks on the market value of their trading portfolio. Banks would then be expected to maintain adequate capital to withstand the declines in market value produced by the specified market stresses. Examiners would assess the adequacy of the models and related internal controls and allow this approach only if the models and internal controls met or exceeded specified standards.

The Board believes that this type of simulation or "stress testing" approach to assessing capital for market risk is the best means of addressing concerns about the complexity of derivative activities and about the potential adverse impacts of dynamic hedging strategies on cash and exchange-traded derivatives markets. Some of the market shocks that regulators would specify would be instantaneous and, therefore, would generate large simulated losses on dynamically hedged options positions. The need to maintain capital to support these losses would strongly discourage undue reliance on dynamic hedging.

Explicit in this approach is the need for regulators to make difficult judgments about the magnitude of shocks that bank capital should be expected to absorb. The temptation will be to embrace the notion that bank capital must be capable of withstanding every conceivable set of adverse circumstances. However, it is important for supervisors to recognize that bank shareholders must earn a competitive rate of return on the capital they place at risk and that capital requirements that are unnecessarily high will impede the functioning of the banking system. While the scenarios need to be sufficiently rigorous to provide prudential coverage in times of stress, we must recognize that even in very adverse market circumstances, banks can take steps to reduce their risk and conserve capital. Finally, we must also recognize that when market forces threaten to build momentum and break loose of economic fundamentals, as they threatened to do in the stock market crash in 1987, sound public policy actions, and not just bank capital, are necessary to preserve financial stability.

Disclosure Public disclosure is another key element in our supervisory approach. The banking agencies have recently expanded the

quarterly call reports in several ways to address trading and derivatives activities, as the GAO report points out. Relevant reporting changes implemented in March include revised reporting procedures to reflect the adoption by the banking agencies of Financial Accounting Standards Board (FASB) Interpretation Number 39 (FIN 39) and the collection of information on past-due payments on interest rate swaps. Under FIN 39, organizations may offset the on-balance sheet assets and liabilities of multiple derivatives contracts with a single counterparty and report the net amount only where the right of set-off is legally enforceable.

The banking agencies have issued for comment a proposal to expand derivatives reporting significantly in September 1994. The proposed enhancements would, among other things, collect notional values and gross positive and gross negative fair values for exchange-traded and OTC contracts separately. The proposal also requests comment on collecting information on exposures reflecting bilateral netting agreements and on the effect of derivatives activities on interest income, interest expenses, and trading revenues of the institution.

Reporting of market risks also will begin to be included in the regulatory report framework by March of 1995, as the banking agencies design reporting in conjunction with the implementation of the domestic capital standard for interest rate risk mandated under FDICIA Section 305. Data required to implement the market risk capital standards being developed by the Basle Committee on Banking Supervision would be incorporated into this reporting framework as well.

I would stress that all of these efforts are only initial steps in a broader program of strengthening public disclosure in

response to major changes in the management of risks at banks and in the financial system more generally. The key to that program is the identification of a core set of information that all major financial market participants need to disclose in order that counterparties, investors and financial regulators can adequately assess the financial condition and risk profile of those they deal with.

This core set of information should not be confined to derivatives activities, but should encompass all of the risk activities of the bank. In particular, the Board believes that measures of credit risk concentrations must aggregate exposures on derivatives contracts with exposures from loans and other activities. Likewise, measures of the sources of trading revenues must recognize that derivatives positions and cash positions typically are managed as a single portfolio. Requirements to report gains and losses on derivatives separately from gains and losses on cash instruments would produce a distorted picture of the sources of trading revenues whenever derivatives positions are offsetting other positions within the portfolio. What would be useful to users of bank financial statements would be a breakdown of trading revenues by underlying markets or risk factors, rather than a breakdown based on legal definitions of the instruments used to create the positions in the underlying risk factors.

Accounting The development of comprehensive and consistent accounting rules is also an important concern of the Federal Reserve. As the GAO report points out, there is currently no single cohesive framework for accounting for derivatives and, as a result, banks are applying different accounting treatment to similar transactions. Obviously, it is difficult for regulators or the public to properly evaluate the risk of an institution--other than through an on-site

examination--without consistent accounting treatment of derivatives transactions. Accordingly, the Board joins GAO in strongly urging the FASB and the industry to move promptly toward a consistent and meaningful set of accounting standards. The Board will continue to work with the Interagency Task Force and the Working Group to find ways to advance this goal.

Sales practices In your invitation, you requested that I address the nature and adequacy of existing protections afforded to end-users of OTC derivatives from abusive practices in connection with sales of such instruments. In OTC derivatives markets, as in the wholesale banking markets, banks have fundamental responsibilities to their shareholders that require them to conduct a thorough credit assessment of their customers. In making a credit assessment for a derivatives transaction, our supervisory guidance indicates that banks should not only assess the overall financial strength of a counterparty and its ability to perform on its obligation, but should consider the counterparty's ability to understand and manage the risks inherent in the product. Our supervisory guidance goes on to say that if counterparties are not sophisticated, the bank should provide sufficient information to make them aware of the risks in the transaction. Where banks recommend specific transactions for unsophisticated counterparties, the Board's policy guidance instructs the bank to ensure that the bank has adequate information regarding its counterparty on which to base its recommendation.

A bank active in OTC derivatives contracts has a particularly strong self-interest in creating and maintaining counterparty relationships, because it has a continuing exposure to the nonperformance of its counterparty for the duration of the contract. Necessarily, the bank must be concerned and must satisfy itself that

its counterparties are sufficiently able to handle the risks associated with the derivatives transactions. Because of the importance of these ongoing relationships, many bank derivative dealers have responded to the recent reports of end-user losses in transactions by reviewing their existing policies and procedures for possible strengthening, and we are closely following those developments.

But the burden of being informed in the marketplace, especially a wholesale marketplace, must not fall only on the dealer. As I noted at the outset of my testimony, derivatives increase economic efficiency by allowing the transfer of risk to those willing to bear it. For the transfer of risk to be effective and the efficiency to be realized, end-users must retain ultimate responsibility for transactions they choose to make. In a wholesale market, sophisticated and unsophisticated end-users alike must ensure that they fully understand the risks attendant to any transaction they enter.

The federal banking agencies put this principle to work in our supervision of bank end-users of derivatives. Before a bank engages in such transactions, we expect senior management and the board of directors to have a good understanding of the risks in derivatives transactions and to ensure that the bank has sufficient personnel with the required expertise, adequate accounting, risk reporting and internal control systems to manage those transactions, and the requisite financial strength.

Thus, the Board does not see the need for legislative or regulatory protection for end-users. Nonetheless, additional steps can and should be taken to heighten the effectiveness of existing

protections in the marketplace. Much more can be done to educate end-users and heighten their awareness of the risks in derivatives and of sound risk management practices. News reports of the recent losses incurred by sophisticated end-users of derivatives have no doubt intensified discussion of these instruments between boards of directors and financial management at many end-users and should spur consideration of enhancements to policies, controls, and reporting. Many information resources already are available to end-users, and the financial industry plans additional educational efforts. The Group of Thirty report, in particular, was directed at the end-user as well as the dealer community, and it probably deserves much wider reading among end-users than it appears to have received to date.

Improving Transparency

In addition to its efforts to strengthen banking supervision, the Board has supported a variety of initiatives that seek to meet challenges faced by all dealers and end-users of derivatives, banks and nonbanks. In particular, the Board believes that the most effective means of promoting sound risk management by the full range of dealers and end-users is by achieving improved public disclosure of derivatives activities. Enhanced financial disclosure by end-users of the nature and size of the risks being managed through derivatives transactions would contribute importantly to heightening board and senior management involvement in these activities. More important, it enhances the effectiveness of market discipline by derivatives counterparties, other creditors, and shareholders or constituents.

Along with the Securities and Exchange Commission and other U S banking and financial regulators, the Federal Reserve has been encouraging the Financial Accounting Standards Board to accelerate its

efforts to improve public disclosures by U S companies In mid-April, FASB released a proposal that would require disclosure of additional information on the scale of derivatives activities, the purpose of those activities (trading or risk management) and, in the case of trading activities, the resulting net gains or losses In addition, the proposal encourages (but does not require) disclosure of quantitative information on interest rate risks and market risks that is consistent with the way the entity manages its risks We plan to respond thoroughly to FASB's request for comments on this proposal at a later date Many of the requirements are similar to those proposed by the banking regulators for inclusion in the quarterly call reports As I noted earlier, however, the Board does not believe that isolating derivatives trading revenues from other trading revenues is a useful step toward understanding the sources of revenues or the risks entailed

The Board has also been actively involved in efforts by the G-10 central banks to address concerns about the transparency of derivatives activities In October 1992, the BIS published a Study of Recent Developments in International Interbank Relations (the Promise Report) that stressed the need for greater transparency As a follow-up to this study, the Eurocurrency Standing Committee of the G-10 central banks created a working group to assess what data on derivatives would be useful to central banks in their responsibilities for conducting monetary policy and overseeing the stability of the financial system The study group concluded that it would be very useful to have statistics on market size, measured both in terms of amounts outstanding and in terms of turnover Because of the global nature of derivatives markets, comprehensive measures of market size require a coordinated international effort In response to a

recommendation by the study group, the G-10 Governors recently approved the addition of questions on derivatives to the triennial survey on foreign exchange turnover that is planned for April 1995. The foreign exchange survey is a proven vehicle for collecting data from banks and other financial institutions. It is conducted by central banks and monetary authorities in more than twenty-five countries, including all significant financial centers.

More recently, the Eurocurrency Standing Committee has formed a working group to consider means of improving market transparency through enhanced public disclosure by market participants. Work is being done to explore the core information needs of market participants, including shareholders, creditors, and counterparties, with the goal of contributing ideas to the larger public discussion of improvements in financial disclosure. Similar efforts are being undertaken in the private sector, and the Board hopes that significant progress can be made soon toward international agreement on a framework for fuller and more meaningful financial disclosures.

Strengthening the Legal and Institutional Infrastructure of Financial Markets

The Federal Reserve also has worked with authorities in the United States and abroad to understand clearly the legal risks associated with derivatives and to reduce legal uncertainty. The Board has been especially concerned about the legal enforceability of the netting agreements for derivatives that dealers and other users increasingly rely on to mitigate counterparty credit exposures. The Board believes that certainty with respect to enforceability is critical for financial stability. If counterparties measure their exposures as net when the true exposures are gross, they could face

losses far larger than expected and possibly larger than they could readily absorb

In the United States, legislation and regulatory action by the Federal Reserve have ensured legal enforceability for most derivatives contracts and counterparties. The most recent legislative action was a far-reaching provision of the FDICIA. This provision validated under U S law all netting contracts between and among depository institutions, broker-dealers, and futures commission merchants. Furthermore, it authorized the Board to broaden the coverage to other financial institutions if the Board determined that such action would promote market efficiency or reduce systemic risk. In March of this year, the Board adopted a new regulation (Regulation EE) that expanded the Act's coverage to include all major derivatives dealers, including affiliates of broker-dealers and insurance companies. Under the umbrella of the Working Group on Financial Markets, the Board is working with the other financial regulators to identify remaining enforceability problems under U S law and to develop solutions that the Working Group could recommend to Congress.

The stock market crash in 1987 demonstrated quite clearly that the capacity of the financial system to absorb shocks depends critically on the robustness of payment and settlement systems. Since then, financial transactions have grown rapidly and linkages between financial markets have tightened, in part because of the expansion of derivatives activities, making payment and settlement systems even more important for financial stability.

A 1989 study by the Group of Thirty set out recommendations for strengthening arrangements for securities settlements that are relevant to financial instruments generally. The study recommended that trades be settled promptly (no later than three business days

after the trade date or T+3), in same-day funds, and according to the principle of delivery-versus-payment. The report also noted the potential benefits of bilateral and multilateral netting arrangements.

In the United States, the Federal Reserve has supported the SEC's adoption of a rule requiring T+3 settlement of broker-dealer transactions in corporate securities. Together with the SEC, we are overseeing efforts by the Depository Trust Company and the National Securities Clearing Corporation to develop liquidity safeguards and other risk controls that would permit settlement of corporate securities trades in same-day funds. Other significant improvements to settlement arrangements in recent years have been the creation of a book-entry delivery-versus-payment system for Government National Mortgage Association securities (the Participants Trust Company) and a multilateral trade netting system for U.S. government securities (the Government Securities Clearing Corporation). In both cases, the Federal Reserve, SEC, and Treasury cooperated to ensure that the system operators employed adequate risk controls.

Internationally, the Federal Reserve has worked with the other G-10 central banks to address concerns about the policy implications of the development of cross-border and multicurrency netting arrangements for payments and for foreign exchange contracts. In November 1990, the Bank for International Settlements published the Report on Netting (Lamfalussy Report). This report, which was endorsed by the G-10 Governors, concluded that such netting agreements have the potential to reduce systemic risks, provided that certain conditions are met. Regarding those conditions, the report set out minimum standards for the design and operation of such systems. To enforce the standards, it established a framework for cooperative

central bank oversight of cross-border and multicurrency netting systems

Follow-up work to the Lamfalussy Report has been carried forward by the G-10 Committee on Payment and Settlement Systems (CPSS), currently chaired by President McDonough of the Federal Reserve Bank of New York. The CPSS has afforded central banks the opportunity to discuss emerging payment system issues and to provide systematic public policy analysis of these issues to the international financial community. The Committee also has discussed proposals by groups of banks in Europe and North America to create clearing houses (multilateral netting systems) for foreign exchange contracts.

The CPSS recently issued a report on Central Bank Payment and Settlement Services with Respect to Cross-Border and Multicurrency Transactions, which examined a range of possible central bank service options to reduce settlement risks, especially in foreign exchange transactions. Some of the same issues were examined by Federal Reserve staff in a study of the potential benefits of expanded hours of operation for the Fedwire funds transfer service. This study concluded that longer Fedwire funds transfer hours could facilitate private sector efforts to reduce risk in foreign exchange settlements, such as the proposed foreign exchange clearing houses. This conclusion helped support the Board's decision in February 1994 to open the funds transfer service eight hours earlier (at 12 30 a m ET), effective in 1997.

NEED FOR REMEDIAL LEGISLATION

The GAO Report recommends that Congress enact legislation requiring federal regulation of the safety and soundness of all major U S OTC derivatives dealers, including securities and insurance firm affiliates that currently are not subject to such regulation. The

Report also urges the Congress to begin systematically addressing the need to revamp and modernize the entire U S regulatory system. As part of such an effort, the report suggests that Congress should debate and decide whether large-scale proprietary trading of derivatives or other financial instruments should be conducted only through separately capitalized subsidiaries of bank holding companies.

In light of the progress that the private sector and financial regulators have made in addressing the challenges posed by derivatives and the further progress that it anticipates, the Board believes that remedial legislation relating to derivatives is neither necessary nor desirable at this time. In particular, the Board does not support the specific legislative recommendations that are contained in the GAO report. As the Board has stated repeatedly, there is a pressing need to modernize the U S financial system and regulatory structure. However, the Board believes legislation directed at derivatives is no substitute for broader reform, and, absent broader reform, could actually increase risks in the U S financial system by creating a regulatory regime that is itself ineffective and that diminishes the effectiveness of market discipline.

Regulation of Nonbank Derivatives Dealers

The Board is not persuaded that public policy considerations require regulation of nonbank derivatives dealers. The rationale for such regulation apparently is that the activities of such dealers pose risks to their counterparties or otherwise heighten systemic risk and that federal intervention, possibly including a taxpayer bailout, could be necessary to protect the financial system. However, in our judgment market forces have been effective in restraining risk-taking by such dealers. Moreover, even if one of these dealers were to fail,

its failure is unlikely to threaten the safety net. Finally, absent broader changes in the federal regulatory framework for nonbank financial institutions, we foresee significant difficulties in fashioning an effective regulatory regime for the derivatives activities of such entities.

Market forces, reinforced by broad acceptance of the risk management principles I have discussed, appear to be constraining effectively risk-taking by nonbank dealers and encouraging implementation of sound risk management practices. Counterparties to derivatives contracts generally are quite sensitive to credit exposures and often transact only with dealers they judge to be of the highest credit standing. Such concerns about creditworthiness have prompted many of the unregulated derivatives dealers to establish derivatives products companies (DPCs) that conform to capital and operating guidelines set out by the credit rating agencies. The Group of Thirty's report appears to have captured the attention of senior managers of unregulated dealers, many of which participated in preparing or financing the report. Many of these firms are now using the G-30 standards as a benchmark to evaluate their practices and, where necessary, to implement improvements.

As I have discussed, the Board believes that the effectiveness of market forces will be strengthened by enhancements to public disclosure requirements that would apply to nearly all of the currently unregulated U.S. dealers. The Board also takes note of initiatives by the Securities Industry Association and others in the derivatives industry to work with the SEC and other regulators to develop voluntary minimum standards for business conduct by derivatives dealers. The details of such standards have yet to be worked out, and such an initiative may not yet have the support of all

unregulated dealers. Still, it seems a promising means of reinforcing the market forces that thus far appear to be working well. The enactment of legislation could well bring this promising initiative up short.

Of course, market forces and industry initiatives cannot eliminate the possibility that an unregulated derivatives dealer could fail. Even if such a failure were to occur, however, it is unlikely to place taxpayers at risk. The Bank Insurance Fund could be placed at risk if insured commercial banks failed to manage prudently their counterparty credit exposures to the failed derivatives dealer. But our examiners are trained to identify and criticize concentrations of credit exposure to a derivatives dealer or to any other counterparty. Nor is the fund maintained for protection of securities customers by the Securities Investor Protection Corporation (SIPC) likely to be jeopardized. Even if the failure of a derivatives dealer affiliate created financial difficulties for a broker-dealer, SEC requirements to segregate customer funds and securities protect the SIPC fund.

To be sure, resolving the failure of an unregulated derivatives dealer would pose challenges to financial regulators. The Federal Reserve and other authorities would carefully monitor the effects of a failure and would work with market participants to achieve an orderly wind-down of its activities, as they did in 1990 when the Drexel Burnham Lambert Group failed. However, it is important to recognize that this type of federal "intervention" does not place taxpayer funds at risk.

The GAO does not discuss clearly how the currently unregulated dealers should be regulated, but it appears to assume that the banking regulators' approach to safety and soundness could readily be applied to unregulated derivatives dealers. To the contrary, the

Board foresees significant difficulties in implementing such an approach without more thorough regulatory reform. Derivatives contracts and related hedge positions often are booked at different legal entities. For example, the market risk associated with derivatives contracts booked at derivatives products companies is transferred to, and managed by, other affiliates. Consequently, regulation of the full range of risks associated with derivatives dealing would require broad authority over affiliated companies or probably authority to regulate the entire firm on a consolidated basis. But such an approach would be difficult to implement at those dealers that combine financial and nonfinancial activities. In particular, design of appropriate capital standards would be especially difficult for such firms.

Congress should recognize that the enactment of legislation could create the mistaken expectation that federal regulation will somehow remove the risk from derivatives activities. We must not lose sight of the fact that risks in financial markets are regulated by private parties. The relevant question that we must address is whether private market regulation is enhanced or weakened by the addition of government regulation. For the reasons I have discussed, the Board fears that, in this instance, a weakening of private market regulation is the more likely outcome.

Proprietary Trading by Banks

The GAO Report suggests that Congress should review whether banks' proprietary trading activities in derivatives and other financial instruments should be forced into separately capitalized subsidiaries of bank holding companies. The basis for this recommendation apparently is a concern that such activities at some banks have become so large and so complex that they pose

unacceptable risks to the deposit insurance fund. However, the Board does not perceive the risks associated with proprietary trading to be inherently greater than those associated with other banking activities. Indeed, the same types of risks are involved--credit risks, market risks, legal risks, and operational risks. Some derivative contracts, notably options products, are quite complex, but a complex, difficult-to-manage option is imbedded in every fixed-rate home mortgage. As is the case for home mortgage lending or any other banking activity, whether proprietary trading places the deposit insurance fund at risk depends on the bank's capital, the degree of concentration in its risk exposures, the strength of its risk management systems and internal controls, and the expertise of its personnel, including senior management and risk managers as well as traders.

Moreover, we believe that implementing a segregation of proprietary trading activities would be extremely difficult. Proprietary trading activities are difficult to define in principle and certainly difficult in practice to distinguish from market-making and other customer accommodation activities of banks. Forcing all trading activities into a subsidiary would be a radical change, affecting what are by any definition traditional banking functions (foreign exchange dealing, for example). Such a drastic change could significantly impair U S banks' competitive positions vis-a-vis foreign banks.

I have discussed the steps that the Federal Reserve and other banking regulators already have taken to ensure that proprietary trading activities are conducted prudently. In particular, the Federal Reserve has made considerable progress in providing its examiners with the tools necessary to assess the effectiveness of risk

management systems and internal controls for trading activities and to identify and demand elimination of any material weaknesses. The Board has placed the highest priority on efforts to revise risk-based capital requirements to cover market risks. Although this effort is not yet complete, an assessment of the adequacy of capital to cover potential trading losses already is a critical element in our annual on-site, full-scope examinations. If a bank were to take trading positions that posed a threat to its solvency, we would insist that those positions be closed out promptly and that the board of directors take strong measures to prevent such a situation from recurring.

Recent examinations of the state member banks that are most actively involved in proprietary trading activities have not revealed significant problems arising from these activities. While our examination reports have cited certain deficiencies in specific internal controls, management is well along toward correcting them. The risk management systems of major dealer banks were severely tested by the recent volatility in financial markets. While the banks suffered losses trading in some markets, their risk controls worked. As losses developed, senior management of the banks were aware of the size of risk positions and of the losses. A combination of loss limits and senior management decisions brought risk positions down. Moreover, because their trading positions tended to be well-diversified across fixed income, foreign exchange, commodity, and equity markets in the United States and in many other countries, their overall trading activities most often remained profitable. Even viewed in isolation, the losses incurred in individual markets were a very small fraction of the capital that supports these banks' trading activities and ensures that shareholders, not taxpayers, bear the costs.

Of course, we must be cautious about drawing inferences from this single episode of market volatility. The banks involved are closely studying their recent experience and identifying ways in which risk management systems can be strengthened further. For its part, the Federal Reserve is reviewing these banks' experiences to identify ways to make further improvements to its supervisory and regulatory program.