For release on delivery
10:00 a.m. P.S.T. (1:00 p.m. E.S.T.)
November 7, 1993

Remarks by

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at the

Annual Convention

of the

American Bankers Association

San Diego, California

November 7, 1993

It is always a pleasure to address this convention. I sense that while the banking industry still faces many challenges, it is doing so from a firmer footing today. The contrast is certainly striking against the circumstances that prevailed when I spoke to you in 1989 and 1990. The industry's risk-based capital ratio is nearly 13 percent now; its problem assets are down; the number of bank failures has fallen sharply; and the market is assessing your performance much more favorably than it did when we last met.

Consequently, I will not expound on the importance of adequate capital or sound loan underwriting standards, topics I have discussed in the past. I would hope, however, that we have learned from our experience of the previous decade and recognize that these concepts are important.

Rather, today, I would like to address the topic of risk management and what the growth of trading and derivative activities may foreshadow for the banking system and the supervisory process. Many observers, both inside and outside Washington, are questioning whether the increased volume of trading activities and the rapid growth of new and complex derivative products are healthy for commercial banks and for the U.S. financial system. They ask whether these activities have introduced risks that may be difficult to understand, manage, and supervise and whether trading and derivatives profits can be sustained.

As the nation's central bank and as a bank regulator, the Federal Reserve has a vital role to play in ensuring that

trading and derivative activities are carried out properly and in ways that do not endanger the health of individual banks or the banking system. We need to ensure that banks have proper safeguards in place and that they not expose themselves to undue risks. However, it is also important that, in our efforts to contain risk-taking, we not unduly stifle innovation or unnecessarily reduce the competitiveness of U.S. banks.

The rate of growth of derivative products during the 1980s has been nothing short of dramatic. From 1985 through 1989, the notional value of interest rate contracts and commitments to purchase foreign exchange more than quadrupled. It has more than doubled again since 1989. During the first six months of this year, alone, the rate of increase was more than 20 percent.

The growth of derivatives clearly has improved bank revenues, although it is not possible to measure this effect with great precision. When employed by end-users, many of these contracts hedge balance sheet positions and help to stabilize cash flows; their positive or negative effects are often buried in net interest income. Published and aggregate data do not allow us to make definitive statements about the profitability of these activities. Anecdotally, and through examinations, of course, we see evidence that these activities have given many institutions substantial returns.

Owing to the difficult accounting problems associated with the whole new spate of derivatives, however, it should be no

surprise that many investors and bank analysts, and some lawmakers, are questioning the relative value of these activities and are unwilling to accord banks much benefit of any doubt. They want to know more about the full effect of these activities and request useful risk measures and standards for disclosure. Bankers and bank supervisors will have to work together to develop appropriate standards that address these issues.

In many respects, the increase in trading associated with financial innovations is a natural response of banks to opportunities and pressures that have been building for years. In the face of the continuing expansion of capital markets, commercial banks have experienced a steady decline in demand from corporate customers for traditional banking services, as many corporations have increasingly relied on capital markets and internal sources for financing.

The same pressures from technology, financial innovation, and market deregulation that caused problems for many banks also gave them new opportunities and access to important new customers. While international trade has continued to grow, pension funds, mutual funds, and other institutional investors have caused international capital flows to surge, as they extended their horizons worldwide. Shaken by the interest rate volatility of the early 1980s, increased numbers of businesses and financial institutions also became more aware of the need to reduce their own market risks. All these events have created

demand for new kinds of products to manage financial risks and have added greatly to trading volume.

These developments have all contributed to sharply higher reported trading profits. Heavily concentrated among the largest institutions, industry trading revenues have risen steadily from $1.6 billion in 1984 to more than $6 billion last year. During the first half of 1993, trading revenues came in at an $8 billion annual pace. Although these figures do not deduct operating costs, they must represent large profits.

Certainly, recent conditions have been exceptionally favorable to traders, with declining U.S. and European interest rates, both this year and last. But the history of bank trading results shows very few quarterly losses.

How have these profits and volumes grown so rapidly in what may appear to be a zero-sum game? Do otherwise fallible human beings become geniuses when they walk into a trading room and proceed to generate large speculative trading profits year after year? Clearly, these persistent so-called trading profits do not solely reflect the results of position-taking but also include customer service fees, often collected as spreads. Given the persistence of trading profits, such customer accommodation activities undoubtedly have contributed heavily to these positive results.

When asked, banks themselves sometimes have difficulty identifying precisely which earnings relate to fee-type income for financial engineering and market-making services and which to

position-taking. The answer may well depend on the structure of the bank's trading activities, its strategies, and on its accounting techniques.

While derivatives are relatively new, their risks are not. They reflect essentially the same basic risks that banks have always faced: credit risk, settlement risk, operating risk, market risk, and so forth. They will surely also help us create important new products. Work in this area could have profound effects on the future of banking markets.

While derivatives assist in risk reduction, they still raise concerns, often because of their complexity, volume, and ability to affect many markets. Mistakes will be made with derivatives, just as they have been made with loans. The key is to provide a framework for limiting the damage they cause.

For supervisors, the most important question is what could go wrong and engender systemic risk. Individual derivative contracts, by their nature, allow risk to be distributed throughout the financial system. Profit maximization, in turn, dictates that risk be distributed to those most willing to take it on, with the likelihood that that class of holders is presumably, by self selection, better able to absorb the particular risk than investors at large. Hence, an individual derivative contract is not inherently risky. Indeed, typically, derivatives are used to reduce risk.

But a wider question is whether systemic risk rises with volume, in the same sense that stock portfolio insurance

appeared to be sound risk avoidance from an individual investor's point of view, but failed to perform as expected in the crash of 1987 when collective selling pressures exceeded available market liquidity.

In short, does the mere existence of, for example, an excessively large volume of counterparty risk raise the sum of risk to systemic levels? Apparently not so long as the underlying markets do not fail, as some were on the verge of doing in 1987. The successful management of derivative portfolios clearly rests on the liquidity of the cash markets for equities, bonds, foreign exchange and commodities, as well as the liquidity of markets for standardized derivatives traded on futures and securities exchanges.

Much progress, incidently, has been made in reducing risks in these institutions since that fateful October day in 1987 and, in that sense, the capacity of our financial system to accommodate large increases in derivative instruments is encouraging.

But is there a level that strains even the newly enhanced market capabilities? Obviously, the growth of derivative markets will inevitably slow down as the plethora of new products reduces the profit opportunities of unexploited risk unbundling. But that horizon is nowhere near. Hence, special vigilance will be required in maintaining adequate financial capacity and liquidity in both the broader underlying markets, and especially for the over-the-counter derivatives markets.

While derivatives may not in themselves be posing increased systemic risk, by tying the underlying markets together they risk having instability in one market spill over into another. We saw such interaction, for example, in 1987 between the Chicago Merchantile Exchange's stock index futures and the New York Stock Exchange.

Thus, while derivatives themselves appear unlikely to be the source of systemic disturbances, they could exacerbate a problem arising elsewhere in the financial system. If the problem created financial difficulties for a major derivatives user, the problem could spread quite quickly to other institutions and markets. It must be recognized, however, that concern about the resulting tighter linkages among institutions and markets has led to significant endeavors to limit potential spillover effects. In particular, the widespread use of legally enforceable bilateral netting arrangements for derivatives and the judicious use of collateral have significantly mitigated concerns that counterparty defaults could spread disturbances.

Derivatives are currently used by two groups of banks: dealers and end-users. Within the United States, end-users consist of a couple of hundred institutions that use derivatives principally to hedge their own cash positions, but also to take positions off-balance sheet, rather than in the cash market.

The second group of roughly a dozen banks consists of market makers, or dealers, who serve principally to provide market liquidity and give other institutions--corporations,

institutional investors, and other banks--the opportunity to hedge. Institutions in this second group are the principal suppliers of liquidity to the OTC market. As such, the possibilities of systemic problems emerging indirectly from these institutions are more evident than from the group of end-users.

The sophisticated mathematical models, which are employed to control portfolios of complex derivative instruments by these dealers, of necessity require certain assumptions about the range of market change and its volatility in order to incorporate the appropriate risk profiles in the decision making process.

Who makes those key decisions and how they are made is clearly crucial to the capability of any system in minimizing risk for a specific institution. While one must presume that the key assumptions that are embodied in these models are made, not by the model builders but by the market operators, one cannot always be sure because every mathematical model has some very sophisticated implicit assumptions in it, which may not be easily communicated to those with inadequate technical knowledge. Thus, it is especially important that senior managers of the system continuously acquaint themselves with the intricacies of the underlying assumptions that these models require in order to make certain that the decisions, where crucial, are not implicitly being made by skillful, but market inexperienced, mathematicians.

The success with which banks conduct derivative activities will substantially affect supervision. Supervisors

will, in the future, monitor derivative and trading activities in a more systematic way. Different examination techniques surely will evolve, such as requiring banks to make greater use of simulations and stress testing to evaluate their risks. The emphasis will, of necessity, become increasingly directed toward examining the processes of risk management in a bank. Examiners will still, however, need to evaluate asset quality in order to assess the bank's own review procedures and its overall capital adequacy and to ensure that unrecognized losses are not accumulating.

These changes in industry practice will create the need for examiners who are as comfortable using option-adjusted spread models as earlier examiners were in evaluating the credit risk in loans. In some cases, we may make greater use of specialized teams that have significant expertise in complex derivatives activities. The Federal Reserve and the other agencies are well along in this process, having expanded our training programs and enhanced our exam procedures.

Finally, but importantly, efforts must also be made to conform legal and supervisory standards worldwide, so that institutions have a level playing field, systemic risks are reduced, and problems that do arise are resolved in the least disruptive way. One immediate goal that can reduce systemic risk is to ensure that netting agreements are enforceable in all major markets. Without such international efforts on both the

supervisory and legislative fronts, any progress made by those of us in the United States may have limited results.

In summary, the central supervisory and prudential question about trading and derivatives activities is how they affect risks, both for individual institutions and for the system as a whole. It is clear that their potential benefits are considerable, but their complexity is also great, and they do involve risk. Derivatives must be carefully managed and supervised. We should be especially careful, however, not to discourage innovations or be close minded about change. Banking is not intended to be a risk-free activity. Risk-taking is a necessary condition of economic progress and rising standards of living.

More generally, we may be in an exceptional period of transformation in which technology is radically affecting and will continue to affect many of the practices of banks and bank supervisors. Whether we like it or not, we seem well on the way toward truly global financial markets. As this new system evolves, we need to work together to ensure that both public and private interests are served. It will require our full attention and cooperation.