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Remarks by

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Forum on Developing Country Access to Derivatives Markets

World Bank

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I want to thank you for inviting me to participate in this forum. Indeed, it is a pleasure to be part of a discussion that focuses on the benefits of derivatives and on opportunities for expanding that use by developing countries. Too often I find myself in a setting where the premise is that derivatives markets have grown too quickly and there is an urgent need to constrain derivatives activities.

Having said that, as a central banker my task is not to promote the industry. Moreover, I have been asked to speak about the regulatory environment for derivatives in the United States. As I see it, the objective of a regulator is to find the appropriate balance between the benefits of financial activities and the management and control of risks. This challenge for regulators will be the *leitmotif* of my remarks today.

Use of derivatives by developing countries

In his correspondence with me, Kenneth Lay summarized the responses from thirty developing countries to a questionnaire on their derivatives activities that was circulated this past spring. The responses were both encouraging and frustrating. They pointed to significant use by developing countries of interest rate and currency swaps. Other derivative instruments, allow countries to hedge commodity

risks. Swap market conditions for developing-country borrowers with good credit standing apparently have relaxed considerably and have become more flexible the last three years.

Nevertheless, a potential for a further expansion of derivatives activities by developing countries remains. Access by developing countries to derivatives markets seems to be limited to the shorter maturities (less than five years). The entire market, in fact, has been slow to develop long-term derivatives. But the potential contribution from longer-term contracts may be especially great in the case of developing countries. In another area, to the extent that access currently is constrained by the lack of technical and back-office expertise in some developing countries, the scope for improvement is great. The capability to manage risk exposures can be learned and the necessary internal controls and procedures for implementing derivatives transactions can be developed. The prospects for enhancing the credit standing of counterparties in developing countries is a more difficult, but fundamental, issue. It involves a full range of macroeconomic policies and policies of structural reform that can put countries on a more stable, long-run growth path. It also presents challenges to the financial community to meet the market demands of developing countries and, at the same time, to manage the credit risks that necessarily will arise.

Regulatory issues

This brings me to the challenge facing the regulators and supervisors. How can we frame regulatory issues in a constructive way,

that is, in a manner that respects both the desirability of accommodating user demands for financial services and the need to protect the financial system?

The issues fall into several categories. First, there are supervisory issues, including both the examination process and capital requirements. Second, there are transparency issues, involving accounting, reporting and disclosure. Third, there are infrastructure issues, such as those related to legal enforceability. I will discuss each of these separately, but I hasten to point out that they are closely interrelated.

Supervision. As a general matter, the Federal Reserve and other bank supervisors in the United States rely heavily on on-site examinations of banking organizations as a flexible means of achieving regulatory objectives. This is less true in some other countries. The emphasis on the examination process reflects the recognition that regulation cannot substitute for effective management by senior bank executives. This should be especially evident in the case of derivatives and other complex cash instruments. The types of rules that have been set out for these instruments in regulatory capital standards -- both for market and credit risk -- cannot be expected to measure accurately all of the risks entailed. Whether a bank prudently manages the risks associated with its derivatives activities depends on the policies, procedures, and information systems demanded by senior management and the board of directors.

During the past two decades, financial markets and institutions have changed dramatically. Markets have been transformed by the forces of securitization and globalization. Banks, especially in the United States, have seen the profitability of traditional business lines come under pressure. Deregulation and innovation have forced them to develop new strategies and products to earn competitive returns on capital.

As a result, the risk profiles of banks have been changing. At the largest banks, in particular, trading activities and customer accommodation have been growing relative to traditional lending activities. Credit exposures are particularly relevant to derivatives activities. These exposures can change abruptly as a result of movements in interest rates, exchange rates, or other market factors. Likewise, because of the greater liquidity of securities and derivatives markets and the leverage associated with some instruments, traders today can establish within minutes or even seconds positions that entail substantial market risks.

These changes in product mixes and risk profiles require banks and other financial institutions to develop new, more powerful approaches to risk management. These new approaches have been made possible by advances over the past twenty years in data processing technology and by advances in financial theory. The publication twenty years ago of the Black-Scholes options pricing model clearly was a watershed. Since then, product and theoretical innovations have fed off one another. The proliferation of derivatives has allowed the risks associated with traditional financial instruments to be unbundled and separately priced and managed. At the same time, the offering of new generations of exotic

derivatives has been facilitated by analysing and pricing them as combinations of fundamental risk factors.

Efforts to rationalize the pricing and management of derivatives risks have set the stage for a revolution in risk management by the leading banks and securities firms. This includes new approaches to the conceptualization, measurement, and control of risk. However, the methods involved are sometimes as complex as the derivative instruments themselves. The systems needed to implement risk management methods can be expensive, especially for firms that have multiple product lines and offices in numerous geographical locations. Thus, even for the largest and most sophisticated banks and securities firms, implementation of these methods poses significant challenges. Furthermore, the application of modern financial methods to the pricing of loans and the management of loan portfolios is still in its infancy.

Encouragement of the use of new technology for risk management is an appropriate function of a bank supervisor. Indeed, a critical element in the on-site examination is the assessment of the adequacy of internal measurement systems and controls. At the Federal Reserve, a comprehensive trading activities manual has recently been developed and distributed. It lays out a consistent set of principles for examiners to use in evaluating banks' derivatives activities.

Given the wide diversity among banking organizations in their level of derivatives activity and extent of risk taking, flexibility also is needed in tailoring supervisory requirements to the specific practices of individual institutions. In December 1993, the Federal Reserve Board released a supervisory letter that provides guidance to both bank

examiners and banking organizations about risk management and internal controls for derivatives. The Comptroller of the Currency and the Federal Deposit Insurance Corporation have each issued something similar. These documents provide guidelines for sound procedures of risk management, but they do not require specific risk management techniques.

The flexibility embodied in the examination process is a complement to capital requirements. A number of efforts are underway, both internationally and within the United States, to modify the existing risk-based Basle capital standards to deal with derivative instruments.

In 1993 the Basle Supervisor's Committee put forward a proposed framework for assessing capital to cover the market risk associated with traded debt, equity, and foreign exchange. Various working groups are now developing revisions to the 1993 proposals. A key aspect of the current work is consideration of the use of banks' internal risk management models for determining regulatory capital. I believe it is extremely important for supervisors to find a way to use banks' internal models for regulatory purposes -- at least for the more sophisticated banks. It would permit supervisors to exploit the evolving technology and would reduce the burden on banks, which would otherwise have to maintain and reconcile separate models for internal risk management and regulatory purposes. Before this can be accomplished, however, a number of issues will need to be addressed. For example, one such issue involves validation, that is, finding a way for supervisors to be confident that the internal model is a valid one. One might argue that requiring the use of internal models is not appropriate for all banks, some of whose activities are sufficiently straightforward that investment in elaborate risk management models may

not be warranted. That may be true now, but as sophisticated risk management technology becomes more accessible many banks are likely to want to move in the direction of greater use of internal models.

Nevertheless, the final capital proposals will have to take into account banking firms that have in place sophisticated internal models and those that do not.

In yet another capital-related area, the Federal Reserve issued a notice of proposed rulemaking in March on the use of bilateral netting in the calculation of risk based capital requirements for U.S. banks. This proposal is currently out for comment. It is part of a coordinated international effort to recognize netting in the Basle standards. A BIS working group is currently developing a proposal to increase the capital charge for the potential future credit exposure of derivative contracts with high volatility. That working group is also developing a proposal to recognize bilateral netting in assessing capital charges for potential future credit exposures. Consultative papers on these two issues are expected in the fall.

Transparency. Accounting and financial disclosure represent an area in which much more progress needs to be made. I also believe that it is one of the areas in which public policymakers, both in the United States and abroad, should enlarge their agendas to provide a leadership role.

The accounting profession in the United States has not yet developed consistent principles for derivatives activities, although intensive efforts are ongoing. The complex uses to which derivatives are

put clearly complicate the development of accounting standards.

Ultimately, of course, it will be important to work toward international harmonization of accounting and disclosure standards. I recognize that the task is even more difficult at an international level, but that argues for pressing forward. Firms active in these markets may well find increased disclosure in their own best interest as one part of an effort to communicate better to investors and the public at large.

Regarding reporting, U.S. banks already report more information than most other participants have been required, or have chosen, to divulge. However, expanded reporting requirements may be appropriate both for U.S. banks and for financial institutions in order to place derivatives in the context of these institutions' overall portfolio activities.

The cross-border dimensions of derivatives markets and the geographic scope of the firms that are active in them make a compelling case for international coordination with respect to reporting. Any attempt to measure market size, for example, must be made on a global basis. Governors of the central banks of the G-10 countries have decided to collect data on derivatives in conjunction with the next foreign exchange turnover survey scheduled for the spring of 1995. This survey is conducted every three years and has been quite valuable to monetary authorities and market participants alike. Also under consideration by central banks through a BIS working group is the development of a proposal for a meaningful, standardized system of regular reporting.

Infrastructure. One of the most important infrastructure issues is the use of master agreements and the legal enforceability of netting that occurs under such agreements. A master agreement creates a single legal obligation covering multiple transactions between two counterparties. In a legal environment in which master netting agreements are binding, significant reductions in credit exposures can be accomplished. The payment netting provisions of such agreements allow counterparties to reduce both the amount and the number of payments occurring in comparison to settlements that would occur on a gross basis. In addition, such agreements require the netting of obligations if contracts are closed-out as a result of a default by one or both counterparties. A sound legal basis for close-out netting ensures that a bankruptcy trustee or statutory liquidator cannot pick and choose, honoring contracts in its favor but defaulting on loss positions.

Netting issues have been an area of particular emphasis at the Federal Reserve. A far-reaching provision of the 1991 FDIC Improvement Act addressed the enforceability of netting agreements, validating under U.S. law bilateral netting contracts between certain financial institutions (defined as depository institutions, securities brokers or dealers, and futures commission merchants) as well as multilateral netting contracts among clearing organization members. The Act also authorized the Federal Reserve Board to broaden the coverage of this provision to other financial institutions, if doing so would promote market efficiency or reduce systemic risk. Using that authority the Board has broadened the definition of financial institution to include all legal entities that are large-scale dealers in U.S. financial markets.

A continued focus on issues of legal enforceability generally, and on netting in particular, is a necessity given its importance in accurately assessing exposure to counterparties. Review of these issues will be strongly encouraged under the Basle Supervisors Committee's proposal to recognize netting for capital purposes. Banks will need to demonstrate the enforceability of their netting contracts on a continuing basis in order to obtain recognition of reductions in credit risk when calculating risk-based capital. To the extent that netting agreements involve counterparties in different jurisdictions, the validity of netting will have to be demonstrated to the satisfaction of supervisors in all relevant jurisdictions. The validity of netting is an issue that will, and should, command high priority attention by policymakers in coming months and years. Reinforcing the legal infrastructure of financial markets in developing countries is an important element in their improved access to derivatives markets.

Domestically, the Federal Reserve also has worked with the U.S. Commodity Futures Trading Commission (CFTC) and the Congress to eliminate the threat that OTC derivatives contracts could be deemed unenforceable off-exchange futures contracts. Were such an event to have occurred, systemic problems clearly could have resulted. The Futures Trading Practices Act of 1992 provided the CFTC with explicit authority to exempt OTC derivatives from most provisions of the Commodity Exchange Act. The Board supported the CFTC's prompt utilization of that new authority to remove this legal uncertainty. Other countries may face similar problems arising from the uncertain legality of derivatives transactions. These

issues need to be addressed by policymakers because of the potential systemic repercussions if contract enforceability were challenged.

A particular aspect of enforceability concerns the legal capacity of parties such as government entities, insurance companies, pension funds, and building societies to enter into derivatives transactions. The largest losses in the swaps markets to date have stemmed from problems of this sort in the United Kingdom. A separate, but related, issue that some people have raised is sales practice guidelines. For example, are additional regulatory measures needed to protect less sophisticated endusers from the risks involved in complex derivatives transactions?

The supervisory, transparency, and infrastructure issues I have just discussed are being addressed in the United States and in international forums. That does not mean that agreement has been reached on how to implement all of the various ideas, or certainly that all the details have been worked out. But there is widespread acceptance of the basic objectives embodied in the proposals.

Concluding remarks

In considering the regulation of derivatives, it is important first to recognize the international character of these markets. This forum itself is a confirmation of that obvious but nevertheless fundamental observation. Second, it is important to remember that derivatives products and markets are evolving. These characteristics of derivatives suggest that any regulatory structure must accommodate a wide range of products and market participants organized in different locations and along different lines. Derivatives represent the provision of risk

management services. A flexible regulatory regime is crucial if we are to let market forces allocate these services efficiently. The character of derivatives also suggests that regulation will require cooperation among domestic and international regulators.

Some have asked whether, perhaps because of the difficulties involved, regulators have gotten behind the curve in terms of the control of derivatives markets. I believe the answer to that is, no -- for two reasons. First, as I have tried to stress, we have made a tremendous amount of progress in strengthening the framework for supervision of derivatives activities. At the same time, participants in financial markets have increased enormously their understanding of the risks involved. Second, we must allow, indeed even encourage, markets and new instruments to develop. We must not stifle innovation if we want developing countries, like others, to benefit more fully from the risk reduction afforded by properly designed derivative transactions.

One cannot be complacent. Supervisors of individual institutions must continue to ensure that senior managements of those institutions understand the risks and are implementing appropriate risk management procedures regarding complex financial products. Regulatory regimes may have to change also as the markets develop. Indeed, a number of proposals have been suggested within the United States.

But I see no reason to believe that derivatives activities, despite their phenomenal growth, are so large that they threaten either the solvency of many individual institutions or the financial system as a whole. Moreover, as I noted, the internal procedures and risk management techniques that have been developed to deal with derivatives continue to

evolve and are being applied to other activities. My hope is that as derivatives are better understood and better managed, they will become more accessible to those who can benefit from participation in them.