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Remarks by

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at the

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I am honored to present the William Taylor Memorial Lecture to such a distinguished group of senior bank supervisors from around the world. I am especially delighted to have with us Bill's wife, Sharon, and daughter, Claire. This visit gives them the opportunity to meet more of Bill's colleagues and to appreciate, once again, the great importance of the work he did.

Those of you who had the opportunity to know Bill can recall him as a dedicated bank supervisor and an outstanding public servant. We in the United States were certainly fortunate to have had him lead our bank supervisory functions at the Federal Reserve and the FDIC while the U.S. banking system was experiencing quite difficult times. To me, no individual displayed the characteristics necessary for a successful senior bank supervisor better than Bill Taylor. Well known for his integrity, tenacity, and professional dedication, Bill demanded the best from himself and from those around him. He understood that a safe and sound banking system was essential to a healthy market system, and he was committed to maintaining such a system.

His contributions extended outside the United States and into the efforts of the Basle Committee on Banking Supervision and beyond. Indeed, he--as much as anyone--recognized that the changes occurring in our international banking system increased the importance of supervisors from around the world.

communicating and working together. It is most fitting, therefore, that we remember him at this conference.

A Period of Change

The dual themes of this year's conference of cross-border banking and qualitative supervision are highly relevant to our responsibilities as bank supervisors in a world economy that is becoming increasingly integrated and complex. Banking has become more sophisticated, the volume of transactions has multiplied, and competitive pressures have grown. These developments reflect the increased efficiency of financial markets worldwide, which have helped to bring about expanded international trade and economic growth.

However, by strengthening the interdependencies among markets and market participants, they may also have increased the potential for significant, adverse events to spread quickly to other markets. As bank supervisors, we must deal with both the positive and the potentially negative effects of rapid innovation and change. We should also take the opportunity that change provides to promote sound risk management practices within our banking systems. Meeting these challenges will be a daunting task.

During my comments this evening I will suggest ways supervisors can address these challenges and prepare for undoubtedly greater changes in the years to come. First, though, I would like to discuss the interaction of governments and central banks with private commercial banks in free economies in terms of risk sharing. By articulating and understanding that relationship, we may have a better framework for considering how to supervise and regulate our financial institutions.

A Leveraged Banking System

In addressing these issues it is important to remember that many of the benefits banks provide modern societies derive from their willingness to take risks and from their use of a relatively high degree of financial leverage. Through leverage, in the form principally of taking deposits, banks perform a critical role in the financial intermediation process, providing savers with additional investment choices and borrowers with a greater range of sources of credit, thereby facilitating a more efficient allocation of resources and contributing importantly to greater economic growth. Indeed, it was the evident value of intermediation and leverage that has shaped the development of our financial systems from the earliest times--certainly since Renaissance goldsmiths.

discovered that lending out deposited gold was feasible and profitable. Stockholm, itself, recognized the value of intermediation with the founding of the Riksbank more than 300 years ago as a private institution.

Of course, this same leverage and risk-taking also greatly increases the possibility of bank failure. Indeed, without leverage, losses from risk-taking would be absorbed by the bank's owners, virtually eliminating the chance that the bank would be unable to meet its obligations in a "failure." Some failures can be of a bank's own making, resulting, for example, from poor credit judgments. For the most part, these failures are a normal and important part of the market process and provide discipline and information to other participants regarding the level of business risks. Other failures, can result from, and contribute to, the rare episodes of severe economic or market turmoil that affects broad segments of an economy and is not the consequence of the imprudence of individual banks. Because of important roles banks and other financial intermediaries play in our financial systems, such failures could have large ripple effects that spread throughout business and financial markets at great costs.

The Distribution of Risks

Over time, societies concluded that leverage and intermediation were essential to economic performance, but also that some bank failures could have unacceptable economic costs. In response, central banks were created and were accorded new responsibilities, and what we now call prudential regulation evolved. In the United States, these initiatives took the shape of the creation of the Federal Reserve in 1913 after several financial panics in the late 19th and early 20th centuries, and of federal deposit insurance and a broadened role for bank supervisors in the 1930's. While the responses in other countries were often less overt, they were generally still significant in their effects.

This expanded role of governments, central banks, and bank supervisors implies a complex approach to managing and even sharing the risks of failure between governments and privately owned banks. Some of what central banks do might be termed "shaping" or reducing some kinds of risks, primarily by providing liquidity in certain situations to reduce the odds of extreme market outcomes, in which uncertainty feeds market panics. Traditionally this was accomplished by making discount or Lombard facilities available, so that depositories could turn illiquid assets into liquid resources and not exacerbate

unsettled market conditions by selling such assets or calling loans. Similarly, open market operations, in situations like that which followed the 1987 stock market crash, satisfy increased needs for liquidity that otherwise could feed cumulative, self-reinforcing, contractions across many financial markets.

But guarding against systemic problems also has involved, on very rare occasions, an element of more overt risk-sharing, in which the government--or more accurately the taxpayer--is potentially asked to bear some of the cost of failure. Activating such risk sharing quite appropriately occurs at most maybe two or three times a century. The willingness to do so arises from society's judgment that some bank failures may have serious adverse effects on the entire economy and that requiring banks to carry enough capital to avoid *any* risk of failure under any circumstances itself would have unacceptable costs in terms of reduced intermediation.

If banks had to absorb all financial risk, then the degree to which they could leverage, of necessity, would be limited, and their contribution to economic growth, modest. Risk-sharing encourages leverage and intermediation. Eliminating risk-sharing and asking banks to remove the possibility of failure would lead to a much smaller banking system. To attract, or at least retain equity capital, a private financial institution must earn at a minimum the overall

economy's rate of return, adjusted for risk. The rate of return banks would need in order to compete for a large amount of extra equity capital would seriously constrain the assets they could hold. In their management of market or credit risk, well-run banks carefully consider potential losses from most possible market outcomes, and they hold sufficient capital to protect themselves from all but the most extreme situations. But banks and other private businesses recognize that to be safe against all possible risks implies a level of capital on which it would be difficult, if not impossible, to earn a competitive rate of return.

On the other hand, if central banks or governments effectively insulate private institutions from the largest potential losses, however incurred, increased laxity could be costly to society as well. Leverage would escalate to the outer edge of prudence, if not beyond. Lenders to banks (as well as their owners or managers) would learn to anticipate central bank or government intervention and would become less responsible, perhaps reckless, in their practices. Such laxity would hold the potential of a major call on taxpayers. And central banks would risk inflationary instabilities from excess money creation if they acted too readily and too often to head off possible market turmoil.

In practice, the policy choice of how much, if any, of the extreme market risk that government authorities should absorb is fraught with many complexities. Yet we central bankers make this decision every day, either explicitly or by default. Moreover, we can never know for sure whether the decisions we made were appropriate. The question, though, is not whether our actions to support entire financial systems or to require major changes at specific institutions are seen to have been necessary *in retrospect*. The absence of a fire does not mean that we should not have paid for fire insurance. Rather, the question is whether, *ex ante*, the probability of a systemic collapse was sufficient to warrant intervention. Often, we cannot wait to see whether, in hindsight, the problem will be judged to have been an isolated event and largely benign.

Supervisory Approach

Thus, governments have been given certain responsibilities related to their banking and financial systems that must be balanced. We have the responsibility to prevent major financial market disruptions through development and enforcement of prudent regulatory standards and, if necessary in rare circumstances, through direct intervention in market events. But we also have the responsibility to assure that private sector institutions have the capacity to take

prudent and appropriate risks, even though such risks will sometimes result in bank losses or even bank failures

Providing institutions with the flexibility that may lead to failure is as important as permitting them the opportunity to succeed. By its nature, all business investment is risky. The role of banks to assist in the financing of such risk thus implies the taking of risk by the bank itself. Indeed, this is the economic role of banking in a market economy. The purpose of risk management is not to eliminate risk, but to manage it in a prudent manner.

Our goal as supervisors, therefore, should not be to prevent all bank failures, but to maintain sufficient prudential standards so that banking problems do not become widespread. We try to achieve the proper balance through official regulations, formal and informal supervisory policies and procedures.

To some extent, we do this over time by signalling to the market, through our actions, the kinds of circumstances in which we might be willing to intervene to quell financial turmoil, and conversely, what levels of difficulties we expect private institutions to resolve by themselves. The market, then, responds by adjusting the cost of capital to banks. Throughout most of this century, we have made our decisions largely in a domestic context. However, in recent

decades that situation has changed markedly for many countries and is rapidly changing for all

With financial instruments and markets becoming more complex and closely linked, it is essential that bank supervisors around the globe get to know and trust one another and communicate openly, as necessary, when banking problems and potential crises emerge. In recognition of such common interests, major industrial countries have worked together for years through the Basle Committee on Banking Supervision. Conferences like this one also clearly help advance the goal of interaction. International coordinating and educational efforts doubtless also help supervisors cope with the growing complexity of supervisory matters by providing them with a forum for dealing with issues of mutual interest and concern. The Caribbean Banking Supervisors Group, the SEANZA Forum of Banking Supervisors, and other regional associations of bank supervisors in the Middle East, Africa, and elsewhere help to move us in the right direction.

We have also made--and continue to make--significant progress in developing prudent international supervisory standards that are both quantitative and qualitative in nature. Bill Taylor played a critical role in crafting and negotiating the Basle Accord of 1988 for credit risk that helped greatly to

strengthen capital standards worldwide and to provide a more equitable basis for international competition. More recently, the internal models approach for measuring market risks in trading activities, adopted by the Basle Committee late last year, builds upon that framework and may illustrate how supervisory rules and practices can evolve.

As financial markets change, supervision must be prepared to adjust. We have to adapt continuously to changing technologies, changing bank practices and changing market forces. Supervision is an ever evolving process. We must be careful, however, not to alter our modalities too often for fear of creating supervisory uncertainty. To maintain a proper balance in the years ahead will be one of our greatest challenges.

The decision to craft a bank's capital requirements for trading activities around accepted and verifiable internal risk measures was an important step in the supervision and regulation of large, internationally active banks. It is all the more noteworthy because it recognizes the importance of both quantitative and qualitative criteria in the measurement and management of trading risks. As risk management techniques evolve for other bank activities, supervisors will need to understand the new procedures and how they affect overall banking risks.

Time and again, though, events are demonstrating that despite the complexity of transactions and the alleged sophistication of management systems, it is poor *qualitative* factors--that is, the lack of basic policies and controls--that so often undermine banks. Fortunately, in many cases, the technology that has enabled institutions to design complex new products also provides the techniques with which the resulting risks can be identified, measured, and controlled. Management also must have the knowledge and motivation to employ these techniques to ensure that the risks are adequately contained. We must never forget that no matter how technologically complex our supervisory systems become, the basic unit of supervision on which all else rests remains the human judgment of the degree of risk on a specific loan, based on the creditworthiness and character of a borrower. If those credit judgments are persistently flawed, no degree of complexity of supposed risk dispersion or elegance of credit models will help.

As the Barings and other episodes illustrate, proper controls include such basic elements as adequate management oversight and separation of duties. Those of us who supervise banks with worldwide operations must recognize that, with today's telecommunications, management must extend its policies, procedures, and controls to all offices that have the ability to take risks. In this

respect, coordination and cooperation between home and host countries become not only important, but essential in maintaining financially sound institutions and financial markets

Within the United States, the Federal Reserve and other bank supervisors are placing growing importance on a bank's risk management process and are strengthening our supervisory procedures, where necessary, to assist examiners in identifying management weaknesses and strengths. We are also working to develop supervisory tools and techniques that utilize available technology and that help supervisors perform their duties with less disruption to banks. These improvements range from software designed to download data about a bank's loan portfolio to an examiner's personal computer, to simply more thoughtful reviews of internal management reports. Such automation enhancements will permit examiners, themselves, to analyze more efficiently the various concentrations within loan or investment portfolios and, therefore, help them to identify the underlying risks and discuss those risks with bank management.

Countries in which supervisors conduct on-site examinations or otherwise review specific loans or loan portfolios may find such technology particularly useful. Within the United States, the growing volume and complexity of transactions, particularly at the largest institutions, is requiring such productivity

enhancements and other modifications to our supervisory procedures. For example, rather than evaluate a high percentage of a bank's loans and investment products by reviewing individual transactions, we will increasingly seek to ensure that the management process itself is sound, and that adequate policies and controls exist. While still important, the amount of transaction testing, especially at large banks, will decline.

However, supervisors everywhere should expect bank boards of directors and senior managements to perform their leadership and oversight roles. By themselves supervisors cannot expect to detect or prevent every unsound practice, nor to ensure that all weak management processes are improved. We can expect our banking systems to be sound only by ensuring that directors and managers provide guidance regarding their appetite for risk, that they bring to the bank, personnel with the integrity and skills to do the job, and that they monitor compliance with their own directives.

Encouraging and promoting sound qualitative risk management and internal controls has been and should remain a high priority of bank supervisors. Indeed, it is as important, in my view, as the development of quantitative prudential standards.

Conclusion

Thus, despite all the changes and innovations, commercial banking remains a business largely of extending credit and managing the related risks. To prosper, bankers must be risk-takers, but risk-takers to an appropriate degree. Banking is special in all of our countries because of its role in financial intermediation. Accordingly, the industry has been given important privileges, including the direct or implicit support of a national safety net in most countries that effectively protects it from the most severe economic events. If relied on too heavily, however, that safety net can be abused by banks, which then become undercapitalized and too willing to take on inappropriate risk.

In the decades ahead, supervisors will have to adjust to growing technologies and increasingly sophisticated markets. A generation ago a month-old bank balance sheet was a reasonable approximation of the current state of an institution. Today, for some banks, day-old balance sheets are on the edge of obsolescence. In the 21st century that will be true of most banks.

Future supervision will of necessity have to rely far more on a bank's risk management information system to protect against loss. We supervisors will be appreciably more involved in evaluating individual bank risk management processes, than after-the-fact results. In doing so, however, we must be assured that

with rare and circumscribed exceptions we do not substitute supervisory judgments for management decisions. That is the road to moral hazard and inefficient bank management. Fortunately, the same technology and innovation that is driving supervisors to focus on management processes will, through the development of sophisticated market structures and responses, do much of our job of ensuring safety and soundness. We should be careful not to impede the process.

Bank supervisors play an important role in encouraging the proper balance of risk-taking by developing prudent standards and enforcing sound practices at banks. Bill Taylor understood that role and worked vigorously to address the weaknesses he saw. The approach we take will convey our views regarding to what extent governments will share banking risks and how much responsibility rests with banks. In a global financial system, the choices we make will clearly have widespread effects.