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Testimony of

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Chairman Shelby, Senator Sarbanes, members of the Committee, it is a pleasure to appear before you this morning on behalf of the Board of Governors to discuss Basel II, the evolving new capital accord for internationally active banking organizations. After five years of discussion, the proposal is entering its final stage of public comment and review, although there still remain additional steps to the process.

Why Is a New Capital Standard Necessary?

The banking supervisors in this country believe that Basel I, the current capital regime adopted in 1988, must be replaced for the largest, most complex banks for three major reasons: (1) Basel I has serious shortcomings as it applies to these large entities, (2) the art of risk management has evolved at the largest banks, and (3) the banking system has become increasingly concentrated.

Shortcomings in Basel I

Basel I was a major step forward in capital regulation. Indeed, for most banks in this country Basel I, as we in the United States have augmented it, is now--and for the foreseeable future will be--more than adequate as a capital framework. However, for the small number of large, complex, internationally active banking organizations, Basel I has serious shortcomings which are becoming more evident with time. Developing a replacement to apply to these banking organizations is imperative.

Basel I is too simplistic to address the activities of our most complex banking institutions. The framework has only four risk categories, and most loans receive the same regulatory capital charge even though loans made by banks encompass the whole spectrum of credit quality. The limited differentiation among the degrees of risk means that the calculated capital ratios are too often uninformative and might well provide

misleading information for banks with risky or problem credits or, for that matter, with portfolios dominated by very safe loans.

Moreover, the limited number of risk categories creates incentives for banks to game the system through capital arbitrage. Capital arbitrage is the avoidance of certain minimum capital charges through the sale or securitization of bank assets for which the capital requirement that the market would impose is less than the current regulatory capital charge. For example, credit card loans and residential mortgages are securitized in volume, rather than held on banks' balance sheets, because the market requires less capital, in the form of bank credit enhancements, than Basel I requires in capital charges. This behavior by banks is perfectly understandable, even desirable in terms of economic efficiency. But it means that banks that engage in such arbitrage retain the higher-risk assets for which the regulatory capital charge--calibrated to assets of average quality--is on average too low.

To be sure, through the examination process supervisors are still able to evaluate the true risk position of the bank, but the regulatory minimum capital ratios of the larger banks are becoming less and less meaningful, a trend that will only accelerate. Not only are creditors, counterparties, and investors less able to evaluate the capital strength of individual banks from what are supposed to be risk-based capital ratios, but regulations and statutory requirements tied to capital ratios have less meaning as well. Basel I capital ratios neither adequately reflect risk nor measure bank strength at the larger banks.

The Evolving State of the Art

Risk measurement and management have improved significantly beyond the state of the art of fifteen years ago, when Basel I was developed. Banks themselves have

created some of the new techniques to improve their risk management and internal economic capital measures in order to be more effective competitors and to control and manage their credit losses. But clearly banks can go considerably further. One objective of Basel II is to speed adoption of these new techniques and to promote the further evolution of risk measurement and management by harnessing them to the regulatory process.

Increased Heterogeneity and Concentration in Banking

Market pressures have led to consolidation in banking around the world. Our own banking system has not been immune; it, too, has become increasingly concentrated with a small number of very large banks operating across a wide range of product and geographic markets. The operations of these large banks are tremendously complex and sophisticated, and they have markedly different product mixes. At the same time, significant weakness in one of these entities has the potential for severely adverse macroeconomic consequences. Although their insured liabilities have been declining over time as a share of their total funding, these organizations, with their scale and role in payment and settlement systems and in derivatives markets, have presented the authorities with an increasing moral hazard. It is imperative that the regulatory framework should encourage these banks to adopt the best possible risk-measurement and management techniques while allowing for the considerable differences in their business strategies. Basel II presents an opportunity for supervisors to encourage these and other large banks to push their management frontier forward.

Basel II

The proposed substitute for the current capital accord, Basel II, is more complex than its predecessor for very good reasons. First, the assessment of risk in an environment of a growing number of instruments and strategies with subtle differences in risk-reward characteristics is inevitably complicated

Second, the Basel II reform has several objectives: U.S. supervisors are trying to improve risk measurement and management both domestically and internationally; to link to the extent that we can the amount of required capital to the amount of risk taken; to further focus the supervisor-bank dialogue on the measurement and management of risk and the risk-capital nexus; and to make all of this transparent to the counterparties that ultimately fund--and hence share--these risk positions.

To achieve all these objectives, the framework for Basel II contains three elements, called Pillars 1, 2, and 3. The most important pillar, Pillar 1, consists of minimum capital requirements--that is, the rules by which a bank calculates its capital ratio and by which its supervisor assesses whether it is in compliance with the minimum capital threshold. As under Basel I, a bank's risk-based capital ratio under Basel II would have a numerator representing the capital available to the bank and a denominator that would be a measure of the risks faced by the bank, referred to as "risk-weighted assets". The definition of regulatory capital in the form of equity, reserves, and subordinated debt and the minimum required ratio, eight percent, are not changing. What would be different is the definition of risk-weighted assets, that is, the methods used to measure the "riskiness" of the loans and investments held by the bank. It is this modified definition of risk-weighted assets, its greater risk-sensitivity, that is the hallmark of Basel II. The

modified definition of risk-weighted assets would also include an explicit, rather than implicit, treatment of "operational risk."

Pillar 2 addresses supervisory oversight; it encompasses the concept that well-managed banks should seek to go beyond simple compliance with minimum capital requirements and perform for themselves a comprehensive assessment of whether they have sufficient capital to support their risks. In addition, on the basis of their knowledge of industry practices at a range of institutions, supervisors should provide constructive feedback to bank management on these internal assessments.

Finally, Pillar 3 seeks to complement these activities with stronger market discipline by requiring banks publicly to disclose key measures related to their risk and capital positions. The concept of these three mutually reinforcing pillars has been central to the Basel II effort.

Scope of Application in the United States

The U.S. supervisory agencies will propose that most banking organizations in this country remain under the existing Basel I-type capital rules and would continue to have no explicit capital charge for operational risk. Earlier I emphasized that Basel I had outlived its usefulness for the larger banking organizations. How then did we conclude that most of our banks should remain under rules based on the old accord?

Banks Remaining Under Current Capital Rules

To begin with, most of our banks have relatively straightforward balance sheets and do not yet need the full panoply of sophisticated risk-management techniques required under the advanced versions of Basel II. In addition, for various reasons, most of our banks now hold considerable capital in excess of regulatory minimums: More than

93 percent have risk-weighted capital ratios in excess of 10 percent--an attained ratio that is 25 percent above the current regulatory minimum. No additional capital would likely have to be held if these institutions were required to adopt Basel II.

Moreover, U.S. banks have long been subject to comprehensive and thorough supervision that is much less common in most other countries planning to implement Basel II. Indeed, U.S. supervisors will continue to be interested in reviewing and understanding the risk-measurement and management processes of all banks. Our banks also disclose considerable information through regulatory reports and under accounting rules and requirements of the Securities and Exchange Commission; they already provide significant disclosure--consistent with Pillar 3 of Basel II.

Thus, when we balanced the costs of imposing a new capital regime on thousands of our banks against the benefits--slightly more risk sensitivity of capital requirements under, say, the standardized version of Basel II for credit risk, and somewhat more disclosure--it did not seem worthwhile to require most of our banks to take that step. Countries with an institutional structure different from ours might clearly find universal application of Basel II to benefit their banking system, but we do not think that imposing Basel II on most of our banks is either necessary or practical.

Banks Moving to Basel II

We have an entirely different view for our largest and most complicated banking organizations, especially those with significant operations abroad. Among the important objectives of both Basel I and the proposed Basel II is to promote competitive consistency of capital requirements for banks that compete directly in global markets.

Another important objective has been to encourage the largest banking

organizations of the world to continue to incorporate into their operations the most sophisticated techniques for the measurement and management of risk. As I have noted, these entities use financial instruments and procedures that are not adequately captured by the Basel I paradigm. They have already begun to use--or have the capability to adopt--the techniques of modern finance to measure and manage their exposures; and because substantial difficulty at one of the largest banking organizations could have significant effects on global financial markets, all of the largest banks should be using these procedures. In our view, prudential supervisors and central bankers would be remiss if we did not address the evolving complexity of our largest banks and ensure that modern techniques were being used to manage their risks. The U.S. supervisors have concluded that the advanced versions of Basel II--the Advanced Internal Ratings Based (A-IRB) approach for measuring credit risk and the Advanced Measurement Approaches (AMA) for measuring operational risk--are best suited to achieve this last objective.

Under the A-IRB approach, a banking organization would have to estimate, for each credit exposure, the probability that the borrower will default, the likely size of the loss that will be incurred in the event of default: and--where the lender has an undrawn line of credit or loan commitment to the borrower--an estimate of what the amount borrowed is likely to be at the time a default occurs. These three key inputs--probability of default (PD), loss given default (LGD), and exposure at default (EAD)--are inputs that would be used in formulas provided by supervisors to determine the minimum required capital for a given portfolio of exposure. While the organization would estimate these key inputs, the estimates would have to be rigorously based on empirical information,

using procedures and controls validated by its supervisor, and the results would have to accurately measure risk.

Those banks that are required, or choose, to adopt the A-IRB approach to measuring credit risk, would also be required to hold capital for operational risk, using a procedure known as the Advanced Management Approach (AMA) to establish the size of that charge. Under the AMA, banks themselves would bear the primary responsibility for developing their own methodology for assessing their own operational risk capital requirement. To be sure, supervisors would require that the procedures used are comprehensive, systematic, and consistent with certain broad outlines, and must review and validate each bank's process. In this way, a bank's "op risk" capital charge would reflect its own environment and controls. Importantly, the size of the charge could be reduced by actions that the bank takes to mitigate operational risk. This provides an important incentive for the bank to take actions to limit their potential losses from operational problems.

Determining Basel II Banks

To promote a more level global playing field, the banking agencies in the United States will be proposing in the forthcoming Advance Notice of Proposed Rulemaking (ANPR) that those U.S. banking organizations with foreign exposure above a specified amount would be in the core set of banks that would be required to adopt the advanced versions of Basel II. To improve risk management at those organizations whose disruption would have the largest effect on the global economy, we would also require the same of banks whose scale exceeds a specified amount. That is, banks meeting either the foreign exposure criterion or the asset size criterion would be required to adopt the

advanced versions of Basel II, although most banks meeting one criterion also meet the other.

Ten U.S. banks meet the proposed criteria to be core banks and thus would be *required*, under our proposal, to adopt A-IRB and AMA to measure their credit and operational risks, respectively. As they grow, other banks could very well meet the criteria and thus shift into the core group in the years ahead. We would also *permit* any bank that meets the infrastructure requirements of A-IRB and AMA--the ability to quantify and develop the necessary risk parameters on credit exposures and develop measurement systems for operational risk exposures--to choose Basel II. Banks that choose to use A-IRB and AMA would need to consider several factors, including the benefits of Basel II relative to its costs, the nature of their operations, the capital impact, and the message they want to send their counterparties about their risk-management techniques. We anticipate that after conducting such a review, about ten or so large banks now outside the core group would choose to adopt Basel II in the near tern. Thus we expect about twenty banks to adopt the advanced version of Basel II before or shortly after the initial implementation date.

Over time, other large banks, perhaps responding to market pressure and facing declining costs and wider understanding of the technology, may also choose this capital regime, but we do not think that the cost-benefit assessment would induce smaller banks to do so for a very long time. Our discussions with the rating agencies confirm they do not expect that regional banks would find adoption of Basel II to be cost effective in the initial implementation period. Preliminary surveys of the views of bank equity security analysts indicate that they are more focused on the disclosure aspects of Basel II rather

than on the scope of application. To be clear, supervisors have no intention of pressuring any of the banks outside the core group to adopt Basel II.

The ten core banks that would be required to adopt Basel II, together with the approximately ten self-selecting banks that we anticipate would adopt it before or shortly after the initial implementation date, today account for 99 percent of the foreign assets and two-thirds of all the assets of domestic U.S. banking organizations, a rate of coverage demonstrating the importance of these entities to the U.S. and global banking and financial markets. These data also underscore our commitment to international competitive equity and the adoption of best-practice policies at the organizations critical to our financial stability while minimizing cost and disruption at our purely domestic, less-complicated organizations.

Issues

Bankers have identified three key areas of concern: cost, competitive equity, and Pillar 1 treatment of operational risk.

Cost

Implementing A-IRB and AMA in this country is going to be expensive for the small number of banks for which it will be required, for other banks choosing it, and for the supervisors. For the banks, the greatest expense would be establishing the mechanisms necessary for a bank to evaluate and control its risk exposures more formally. The A-IRB approach would not eliminate losses: Banks are in the business of taking risk, and where there are risks, there will be losses. But we believe that the better risk-management that is required for the A-IRB and AMA would better align risk and return and thereby provide benefits to bank stakeholders and the economy. And, more

risk-sensitive capital requirements would assist in ensuring that banks would have sufficient capital to absorb losses when they do occur. The cost-benefit ratio looks right to the supervisors.

This ratio is further enhanced because attributing to Basel II all the costs associated with the adoption of modern, formal risk-management systems is a logical fallacy. The large banks that would be required, or that would choose, to adopt A-IRB and AMA must compete for funding in a global marketplace and thus already have adopted many of these processes and would continue to develop them even without Basel II. The new accord may well appropriately speed up the adoption process, but overall, the costs of adopting these processes are being forced on these banks not by Basel II but by the requirements of doing business in an increasingly complex financial environment. In any event, the ANPR will include questions designed to quantify the cost of implementing Basel II.

Competitive Equity

A second key concern is competitive equity. Some are concerned that the U.S. supervisors would be more stringent in their application of Basel II rules than other countries and would thereby place U.S. banks at a competitive disadvantage. To address this concern, the Basel agreement establishes an Accord Implementation Group (AIG), made up of senior supervisors from each Basel member country, which has already begun to meet. It is the AIG's task to work out common standards and procedures and act as a forum in which conflicts can be addressed. No doubt some differences in application would be unavoidable across banking systems with different institutional and supervisory structures, but all of the supervisors, and certainly the Federal Reserve, would remain

alert to this issue and work to minimize it. I also emphasize that, as is the case today, U.S. bank subsidiaries of foreign banks would be operating under U.S. rules, just as foreign bank subsidiaries of U.S. banks would be operating under host-country rules.

Another issue relates to the concern *among* U. S. Basel II banks of the potential competitive edge that might be given to any bank that would have its capital requirements lowered by more than that of another Basel II bank. The essence of Basel II is that it is designed to link the capital requirement to the risk of the exposures of each individual bank. A bank that holds mainly lower-risk assets, such as high-quality residential mortgages, would have no advantage over a rival that held mainly lower-quality, and therefore riskier, commercial loans just because the former had lower required capital charges. The capital requirements should be a function of risk taken, and, under Basel II, if the two banks had very similar loans, they both should have a very similar required capital charge. For this reason, competitive equity among Basel II banks in this country should not be a genuine issue because capital should reflect risk taken. Under the current capital regime, banks with different risk profiles have the same capital requirements, creating now a competitive inequity for the banks that have chosen lower risk profiles.

The most frequently voiced concern about possible competitive imbalance reflects the "bifurcated" rules implicit in the U.S. supervisors' proposed scope of application: that is, requiring Basel II through A-IRB and AMA for a small number of large banks while requiring the current capital rules for all other U.S. banks. The stated concern of some observers is that the banks that remained under the current capital rules, with capital charges that are not as risk sensitive, would be at a competitive disadvantage compared to Basel II banks that would get lower capital charges on less-risky assets. The

same credit exposure might have a lower regulatory minimum capital charge at a Basel II bank than at a Basel I bank. Of course, Basel II banks would have higher capital charges on higher-risk assets and the cost of adopting a new infrastructure, neither of which Basel I banks would have. And any bank that might feel threatened could adopt Basel II if they would make the investment required to reach the qualifying criteria.

But a concern remains about competitive equity in our proposed scope of application, one that could present some difficult trade-offs *if* the competitive issue is real and significant. On the one hand is the pressing need to reform the capital system for the largest banks and the practical arguments for retaining the present system for most U.S. banks. Against that is the concern that there might be an unintended consequence of disadvantaging those banks that would remain on the current capital regime.

We take the latter concern seriously and will be exploring it through the ANPR. But, without prejudging the issue, there are reasons to believe that little if any competitive disadvantage would be brought to those banks remaining under the current capital regime.

The basic question is the role of minimum regulatory capital requirements in the determination of the price and availability of credit. Economic analysis suggests that regulatory capital should be considerably less important than the capital allocations that banks make internally within their organization, so-called economic capital. Our understanding of bank pricing is that it starts with economic capital and the explicit recognition of the riskiness of the credit and is then adjusted on the basis of market conditions and local competition from bank and nonbank sources. In some markets, some

banks will be relatively passive price takers. In either case, regulatory capital is mostly irrelevant in the pricing decision, and therefore unlikely to cause competitive disparities.

Moreover, most banks, and especially the smaller ones, hold capital far in excess of regulatory minimums for various reasons. Thus, changes in their own or their rivals' minimum regulatory capital generally would not have much effect on the level of capital they choose to hold and would therefore not necessarily affect internal capital allocations for pricing purposes.

In addition, the banks that most frequently express a fear of being disadvantaged by a bifurcated regulatory regime have for years faced capital arbitrage from larger rivals who were able to reduce their capital charges by securitizing loans for which the regulatory charge was too high relative to the market or economic capital charge. The more risk-sensitive A-IRB in fact would reduce the regulatory capital charge in just those areas where capital requirements are too high under the current regime. In those areas, capital arbitrage has already reduced the regulatory capital charge. The A-IRB would provide, in effect, risk-sensitive capital charges for lower-risk assets that are similar to what the larger banks have for years already obtained through capital arbitrage. In short, competitive realities between banks might not change in many markets in which minimum regulatory capital charges would become more explicitly risk sensitive.

Concerns have also been raised about the effect of Basel II capital requirements on the competitive relationships between depository institutions and their nondepository rivals. Of course, the argument that economic capital is the driving force in pricing applies in this case, too. Its role is only reinforced by the fact that the cost of capital and funding is less at insured depositories than at their nondepository rivals because of the

safety net. Insured deposits and access to the Federal Reserve discount window (and Federal Home Loan Bank advances) let insured depositories operate with far less capital or collateralization than the market would otherwise require of them and far less than it does require of nondepository rivals. Again, Basel II would not change those market realities.

Let me repeat that I do not mean to dismiss competitive equity concerns. Indeed, I hope that the comments on the ANPR bring forth insights and analyses that respond directly to the issues, particularly the observations I have just made. But, I must say, we need to see reasoned analysis and not assertions.

Operational Risk

The third key area of concern is the proposed Pillar 1 treatment of operational risk. Operational risk refers to losses from failures of systems, controls, or people and will, for the first time, be explicitly subject to capital charges under the Basel II proposal. Neither operational risk nor capital to offset it are new concepts. Supervisors have been expecting banks to manage operational risk for some time, and banks have been holding capital against it. Under Basel I both operational and credit risks have been implicitly covered in one measure of risk and one capital charge. But Basel II, by designing a risk-based system for credit and operational risk, separates the two risks and would require capital to be held for each separately.

Operational disruptions have caused banks to suffer huge losses and, in some cases, failure here and abroad. At times they have dominated the business news and even the front pages. Appendix 1 to this statement lists the ten largest such events of recent years. In an increasingly technology-driven banking system, operational risks have

become an even larger share of total risk; at some banks they are the dominant risk. To avoid addressing them would be imprudent and would leave a considerable gap in our regulatory system.

A capital charge to cover operational risk would no more eliminate operational risk than a capital charge for credit risk eliminates credit risk. For both risks, capital is a measure of a bank's ability to absorb losses and survive without endangering the banking and financial system. The AMA for determining capital charges on operational risk is a principles-based approach that would obligate banks to evaluate their own operational risks in a structured but flexible way. Importantly, a bank could reduce its operational-risk charge by adopting procedures, systems, and controls that reduce its risk or by shifting the risk to others through measures such as insurance. This approach parallels that for credit risk, in which capital charges can be reduced by shifting to less-risky exposures or by making use of risk-mitigation techniques such as collateral or guarantees.

Some banks for which operational risk is the dominant risk oppose an explicit capital charge on operational risk. Some of these organizations tend to have little credit exposure and hence very small *required* capital under the current regime, but would have significant required capital charges should operational risk be explicitly treated under Pillar 1 of Basel II. Such banks, and also some whose principal risks are credit-related, would prefer that operational risk be handled case by case through the supervisory review of buffer capital under Pillar 2 of the Basel proposal rather than be subject to an explicit regulatory capital charge under Pillar 1. The Federal Reserve believes that would be a mistake because it would greatly reduce the transparency of risk and capital that is such

an important part of Basel II and would make it very difficult to treat risks comparably across banks because Pillar 2 is judgmentally based.

Most of the banks to which Basel II would apply in the United States are well along in developing their AMA-based capital charge and believe that the process has already induced them to adopt risk-reducing innovations. Presentations at a conference held late last month illustrated the significant advances in operational-risk quantification being made by most internationally active banks. The presentations were made by representatives from most of the major banks in Europe, Asia, and North America, and many presenters enthusiastically supported the use of AMA-type techniques to incorporate operational risk in their formal modeling of economic capital. Many banks also acknowledged the important role played by the Basel process in encouraging them to develop improved operational risk management.[1]

Overall Capital and An Evolving Basel II

Before I move on to other issues, I would like to address the concern that the combination of credit and operational risk capital charges for those U.S. banks that are under Basel II would decline too much for prudent supervisory purposes. Speaking for the Federal Reserve Board, let me underline that we could not support a final Basel II that we felt caused capital to decline to unsafe and unsound levels at the largest banks. That is why we anticipate that the U.S. authorities would conduct a Quantitative Impact Study (QIS) in 2004 to supplement the one conducted late last year; I anticipate at least one or two more before final implementation. It is also why CP3 calls for one year of parallel (Basel I and II) capital calculation and a two-year phase-in with capital floors set at 90

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[1] Papers from that conference are available at http://www.newyorkfed.org/pihome/news/speeches/2003/con052903.html

and 80 percent, respectively, of the Basel I levels before full Basel II implementation. At any of those stages, if the evidence suggested that capital were declining too much the Federal Reserve Board would insist that Basel II be adjusted or recalibrated, regardless of the difficulties with bankers here and abroad or with supervisors in other countries. This is the stated position of the Board and our supervisors and has not changed during the process.

Of course, capital ratios are not the sole consideration. The improved risk measurement and management, and its integration into the supervisory system, under Basel II, are also critical to ensuring the safety and soundness of the banking system. When coupled with the special U.S. features, such as prompt corrective action, minimum leverage ratios, statutory provisions that make capital a prerequisite to exercising additional powers, and market demands for buffer capital, some modest reduction in the minimum regulatory capital for sound, well managed banks could be tolerable. And, I note that banks with lower risk profiles, as a matter of sound public policy, should have lower capital than banks with higher risk profiles. Greater dispersion in required capital ratios, if reflective of underlying risk, is an objective, not a problem to be overcome.

I should also underline that Basel II is designed to adapt to changing technology and procedures. I fully expect that in the years ahead banks and supervisors will develop better ways of estimating risk parameters as well as better functions that convert those parameters to capital requirements. When they do, these changes could be substituted directly into the Basel II framework, portfolio by portfolio if necessary. Basel II would not lock risk management into any particular structure; rather Basel II could evolve as best practice evolves and, as it were, be evergreen.

The Schedule and Transparency

I would like to say a few words about the schedule. In a few weeks, the agencies will be publishing their joint ANPR for a ninety-day comment period, and will also issue early drafts of related supervisory guidance so that banks can have a fuller understanding of supervisory expectations and more carefully begin their planning process. The comments on the domestic rulemaking as well as on CP3 will be critical in developing the negotiating position of the U.S. agencies, and highlighting the need for any potential modifications in the proposal. The U.S. agencies are committed to careful and considered review of the comments received.

When the comments on CP3 and the ANPR have been received, the agencies will review them and meet to discuss whether changes are required in the Basel II proposal. In November, we are scheduled to meet in Basel to negotiate our remaining differences. I fear this part of the schedule may be too tight because it may not provide U.S. negotiators with sufficient time to digest the comments on the ANPR and develop a national position to present to our negotiating partners. There may well be some slippage from the November target, but this slippage in the schedule is unlikely to be very great.

In any event, implementation in this country of the final agreement on Basel II would require a Notice of Proposed Rulemaking (NPR) in 2004 and a review of comments followed by a final rule before the end of 2004. On a parallel track, core banks and potential opt-in banks in the United States will be having preliminary discussions with their relevant supervisors in 2003 and 2004 to develop a work plan and schedule. As I noted, we intend to conduct more Quantitative Impact Studies, starting in 2004, so we can be more certain of the impact of the proposed changes on individual banks and

the banking system. As it stands now, core and opt-in banks will be asked by the fall of 2004 to develop an action plan leading up to final implementation. Implementation by the end of 2006 would be desirable, but each bank's plan will be based on a joint assessment by the individual bank and its relevant supervisors of a realistic schedule; for some banks the adoption date may be beyond the end of 2006 because of the complexity of the required changes in systems. It is our preference to have an institution "do it right" rather than "do it quickly". We do not plan to force any bank into a regime for which it is not ready, but supervisors do expect a formal plan and a reasonable implementation date. At any time during that period, we can slow down the schedule or revise the rules if there is a good reason to do so.

The development of Basel II has been highly transparent from the beginning and will remain so. All of the consultative papers over the past five years have been supported by a large number of public papers and documents to provide background on the concepts, framework, and options. After each previous consultative paper, extensive public comment has been followed by significant refinement and improvement of the proposal.

During the past five years, a number of meetings with bankers have been held in Basel and in other nations, including the United States. Over the past eighteen months, I have chaired a series of meetings with bankers, often jointly with Comptroller Hawke. More than 20 U.S. banks late last year joined 365 others around the world in the third Quantitative Impact Survey (QIS3), which was intended to estimate the effects of Basel II on their operations. The banking agencies last month held three regional meetings with the bankers that would not be required to adopt Basel II but might have an interest in

choosing to adopt the A-IRB approach and the AMA. Our purpose was to ensure that these banks understand the proposal and the options it provides them.[2] As I noted, in about one month the banking agencies in this country hope to release an ANPR that will outline and seek comment on specific proposals for the application of Basel II in this country. In the past week or so we have also released two White Papers to help commenters frame their views on commercial real estate and the capital implications of recognizing certain guarantees. These, too, are available at our web site.

This dialogue with bankers has had a substantive impact on the Basel II proposal. I have attached to my statement a comparison of some of the major provisions of Basel II as proposed in each of the three consultative documents published by the Basel Committee on Bank Supervision (appendix 2). As you can see, commenters have significantly influenced the shape and detail of the proposal. For example, comments about the earlier proposed crude formulas for addressing operational risk led to a change in the way capital for operational risk may be calculated; banks' may now use their own methods for assessing this form of risk, as long as these methods are sufficiently comprehensive and systematic and meet a set of principles-based qualifying criteria. That is the AMA. The mechanism for establishing capital for credit risk has also evolved significantly since the first consultative paper on the basis of industry comments and suggestions; as a result, a large number of exposure types are now treated separately. Similarly, disclosure rules have been simplified and streamlined in response to industry concerns.

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[2] The documents used in these presentations are available at the Board's web site, http://www.federalreserve.gov/banknreg.htm ("Documents Relating to US Implementation of Basel II").

At this stage of the proposal, comments that are based on evidence and analysis are most likely to be effective. Perhaps an example of the importance of supporting evidence in causing a change in positions might be useful. As some members of this committee may know, the Federal Reserve had concluded earlier, on the basis of both supervisory judgment and the available evidence, that the risk associated with commercial real estate loans on certain existing or completed property required a capital charge higher than the capital charge on other commercial real estate and on commercial and industrial loans. In recent weeks, however, our analysis of additional data suggested that the evidence was contradictory. With such inconsistent empirical evidence, we concluded that, despite our supervisory judgment on the potential risk of these exposures, we could not support requiring a higher minimum capital charge on commercial real estate loans on any existing or completed property, and we will not do so.

In the same vein, we also remain open minded about proposals that simplify the proposal but attain its objective. Both the modifications of the proposals in CP3 and the changes in U.S. supervisory views, as evidenced by the commercial real estate proposal, testify to the willingness of the agencies, even at this late stage of the process, to entertain new ideas and to change previous views when warranted.

Summary

The existing capital regime must be replaced for the large, internationally active banks whose operations have outgrown the simple paradigm of Basel I and whose scale requires improved risk-management and supervisory techniques to minimize the risk of disruptions to world financial markets. Fortunately, the state of the art of risk measurement and risk management has improved dramatically since the first capital

accord was adopted, and the new techniques are the basis for the proposed new accord. In my judgment, we have no alternative but to adopt, as soon as practical, these approaches for the supervision of our larger banks.

The Basel II framework is the product of extensive multiyear dialogues with the banking industry regarding evolving best practice risk-management techniques in every significant area of banking activity. Accordingly, by aligning supervision and regulation with these techniques, it provides a great step forward in protecting our financial system and that of other nations to the benefit of our citizens. Basel II will provide strong incentives for banks to continue improving their internal risk-management capabilities as well as the tools for supervisors to focus on emerging problems and issues more rapidly than ever before.

I am pleased to appear before you today to report on this effort as it nears completion. Open discussion of complex issues has been at the heart of the Basel II development process from the outset and will continue to characterize it as Basel II evolves further.

APPENDIX 1

Large Losses from Operational Risk

1992-2002

10 Large Operational Losses Affecting Banks and Bank Affiliates

Loss #	Amount ($M)	Firm	Year	Description
1	1,110	Daiwa Bank Ltd.	1995	Between 1983 and 1995, Daiwa Bank incurred $1.1 billion in losses due to unauthorized trading.
2	1,330	Barings PLC	1995	A $1.3 billion loss due to unauthorized trading triggered the bank's collapse.
3	900	J.P. Morgan Chase	2002	J.P. Morgan Chase established a $900 million reserve for Enron-related litigation and regulatory matters.
4	770	First National Bank Of Keystone	2001	The bank failed due to embezzlement and loan fraud perpetrated by senior managers.
5	691	Allied Irish Banks	2002	Allied Irish Bank incurred losses of $691 million due to unauthorized trading that had occurred over the previous five years.
6	636	Morgan Grenfell Asset Management (Deutsche Bank)	1997	A fund manager violated regulations limiting investments in unlisted securities for three large mutual funds. Deutsche Bank had to inject GBP 180 million to keep the funds liquid, with total costs in the matter exceeding GBP 400 million.
7	611	Republic New York Corp.	2001	Republic Bank paid $611M in restitution and fines stemming from its role as custodian of securities sold by Princeton Economics International, which had issued false account statements and commingled client money.
8	490	Bank of America	2002	Bank of America agreed to settle class action lawsuits filed in the wake of its merger with NationsBank. The suits alleged omissions relating to its relationship with D.E. Shaw & Co.
9	440	Standard Chartered Bank PLC	1992	Standard Chartered Bank lost $440M in connection with the Bombay stock market scandal. A government panel charged that the banks involved broke Indian banking laws and guidelines while trading in government bonds, investing money for corporate clients, and giving money to brokers to invest in the Bombay stock market.
10	440	Superior Bank FSB	2001	The bank failed due to improper accounting related to retained interests in securitized subprime loans.

Note: Loss Amounts are obtained from public sources and are gross loss amounts prior to possible recoveries.

APPENDIX 2

Evolution of Basel II Proposals

The following table provides a summary of modifications made by the Basel Committee on Banking Supervision (Committee) to its proposal for a New Basel Capital Accord (New Accord). Since release of its first consultative paper in June 1999, the Committee has been engaged in extensive dialogue with banking organizations and other interested parties regarding the new capital adequacy framework. These consultations have resulted in the release of three consultative papers and the completion of several quantitative impact studies in which banks were asked to assess the impact of the Committee's proposal on their current portfolios.

In many instances, the additional information obtained from market participants was instrumental to additional analyses conducted by the Committee. The table captures changes made to the approaches to be implemented in the United States: the Advanced Internal Ratings Based (A-IRB) approach to credit risk and the Advanced Measurement Approach (AMA) to operational risk. Modifications to the Standardized approach to credit risk, as well as the Basic Indicator and Standardized approach to operational risk are not featured.

	Proposals contained in the Committee's first consultative paper (CP1) issued June 1999	Modifications captured in the Committee's second consultative paper (CP2) issued January 2001	Modifications captured in the Committee's third consultative paper (CP3) issued April 2003
Minimum Capital Requirements (Pillar 1 of the proposed New Accord)			
Advanced Internal Ratings-based (IRB) Approach to Credit Risk: General Comments	The Committee's first consultative paper (CP1) introduced the possibility of an IRB approach for calculating minimum capital requirements for credit risk. The concept of an IRB approach was meant to allow banks' own estimates of key risk drivers to serve as primary inputs to the capital calculation, subject to minimum standards. CP1 made reference to further work of the Committee (in consultation with the industry) on key issues related to the IRB approach. The remainder of that section of CP1 highlighted some of the issues the Committee expected to consider.	The Committee's second consultative paper (CP2) described the IRB framework in detail. Among other elements, CP2 defined the various portfolios and outlined the mechanics of how to calculate the IRB capital charges. Another critical element was presentation of the minimum qualifying criteria that banks would have to satisfy to be able to use the IRB approach to credit risk. CP2 also outlined expectations regarding adoption of the advanced IRB approach across all material exposure types of a banking organization. A floor on the minimum capital requirement was specified.	After consideration of the feedback provided by industry participants, particularly that gathered through quantitative impact studies, the Committee made adjustments to the level of capital required by the IRB approaches. Among other elements (as described below), the IRB approach was refined to allow for greater differentiation of risk. For example, the Committee approved a new, more appropriate treatment of loans made to small- and medium-enterprises (SMEs). The retail portfolio was divided into three subcategories. CP3 also outlined a treatment for specialized lending. The qualifying criteria for the IRB approach have been streamlined. The criteria are now described in a principles-based manner. CP3 also simplified the floor capital requirement such that there will be one floor that applies to banks adopting the IRB approach to credit risk and advanced measurements approaches (AMA) to operational risk for the first two years following implementation of the proposed Accord.

Exposure Type: **1. Wholesale (corporate, sovereign and bank)**	Not specified in CP1.	Wholesale exposures were defined to include corporate, sovereign and bank exposures. Banks are expected to assess the risk of each individual wholesale exposure. CP2 described the mechanism for assessing the risk of each wholesale exposure. The quantitative inputs (probability of default (PD), loss given default (LGD), exposure at default (EAD) and effective remaining maturity (M)) by exposure type were specified. Additionally, CP2 relates the quantitative inputs to the risk weight formula applicable for all three wholesale exposures. Further, minimum qualifying standards for use of the IRB approach were described in detail. An adjustment was introduced for reflecting in regulatory capital any concentrations a bank may have to a single borrower within its wholesale portfolio.	Based on findings from the impact studies conducted by the Basel Committee, and in response to industry concerns about the potential for cyclical capital requirements and the treatment of SMEs, the slope of the wholesale risk weight function has been flattened. This has the effect of producing capital requirements that differ by a smaller amount as the estimated PD of an exposure increases. CP3 confirmed that banks making use of the advanced IRB approach would need to take account of a loan's effective remaining maturity (M) when determining regulatory capital, but that supervisors may exempt smaller domestic borrowers from that requirement. As part of the treatment of corporate exposures, another adjustment to the risk weight formula has been made that results in a lower amount of required capital for credit extended to SMEs versus that extended to larger firms. In response to industry feedback, the proposed adjustment for single borrower concentrations has been eliminated given the additional complexity it would introduce into the IRB framework. That said, banks would be expected to evaluate concentrations of credit risk under Pillar 2 of the proposed Accord.

2. Retail	Not specified in CP1.	Retail was identified as a single exposure type. The risk weight formula, the inputs to be provided by banks and minimum qualifying criteria also were specified. In contrast to the individual evaluation required for wholesale exposures, it is proposed that banks assess retail exposures on a pool basis.	Retail has been sub-divided into three separate exposure types (residential mortgages, qualifying revolving exposures (e.g. credit cards), and other retail exposures). Each of the three exposure types has its own risk weight formula in recognition of differences in their risk characteristics. Qualifying criteria pertaining to retail exposures have been further defined.
3. Specialized Lending	Not specified in CP1.	The second consultative paper provided a definition of project finance. An IRB risk weight formula for this exposure type was not specified.	Specialized lending (SL) has been defined to include various financing arrangements (project, object and commodities). Additionally, this exposure category has been defined to include income producing real estate and the financing of commercial real estate that exhibits higher loss rate volatility. For all but one SL category, qualifying banks may use the corporate risk weight formula to determine the risk of each exposure. When this is not possible, an additional option only requires banks to classify SL exposures into five distinct quality grades with specific capital requirements associated with each. A Federal Reserve white paper explores issues surrounding the valuation of commercial real estate to be consistent with reference to the white paper on double default.

4. Equity	Not specified in CP1.	A definition of equity exposures was provided in CP2. Reference was made to treating such holdings in a manner similar to that required of banks' investments in securities firms or insurance companies.	The definition of equity exposures has been expanded. CP3 outlines two specific approaches to determining capital for equity exposures. One builds on the IRB treatment of corporate exposures. The second provides banks with opportunity to model the potential decrease in the market value of their holdings. CP3 also described the qualifying criteria for such exposures.
5. Purchased Receivables	Not specified in CP1.	Not specified in CP2.	CP3 describes a capital treatment for purchased receivables (retail and corporate). Subject to certain qualifying criteria, banks will be permitted to assess capital on a pool basis for corporate receivables as they are permitted to do for retail exposures and purchased retail receivables.
Qualifying Criteria for Use of the Advanced IRB Approach	Qualifying criteria were not specified in CP1. However, a sound practice paper on the management of credit risk was issued shortly after CP1.	Qualifying criteria were developed to ensure an appropriate degree of consistency in banks' use of their own estimates of key risk drivers in calculating regulatory capital. The qualifying criteria for corporate exposures were provided in detail with less discussion of those pertaining to retail, sovereign and bank exposures.	The qualifying criteria have been streamlined. In response to industry feedback, the criteria are now described in a principles-based manner for all IRB exposure types. The intent is to allow for consistent application of the requirements, as well as for innovation and appropriate differences in the way in which banking organizations operate.
Other Elements of the IRB Framework	Not specified in CP1.	Not specified in CP2.	The IRB capital requirement includes components to cover both expected and unexpected losses. CP3 specified methods for recognizing loan loss reserves as an offset to the expected loss component of risk weighted assets by exposure type. CP3 also specified a definition of default and factors to be considered for use in the IRB approach.

Credit Risk Mitigation (e.g. collateral, guarantees, and credit derivatives)	An IRB treatment for recognizing credit risk mitigants was not specified in CP1.	A credit risk mitigation (CRM) framework was introduced in CP2. It allowed banks to recognize collateral in their own estimates of default. Guarantees and credit derivatives remain subject to a treatment where the risk weight of the guarantor is substituted for that of the borrower.	The qualifying criteria concerning recognition of CRM techniques have been further clarified. Banks are provided with greater flexibility to recognize guarantees and credit derivatives in the IRB risk inputs (e.g. PD and LGD). However, banks are not permitted to recognize “double default” effects when determining the impact of CRM techniques on their capital requirements. A Federal Reserve white paper attempts to analyze the issues surrounding default of a borrower and a guarantor (“double default”) for losses to be incurred on a hedged credit exposure.
Securitization	An IRB treatment of securitization was not specified in CP1.	CP2 outlined an IRB treatment of securitization. Initial thoughts about how to address exposures held by banks (qualifying for the IRB treatment) that originate securitizations and those that invest in transactions put together by other parties were discussed in general terms. It was indicated that the Committee would continue its work to refine the IRB treatment of securitization during the comment period for CP2.	An IRB treatment of securitisation is discussed in detail. Banks may (subject to certain qualifying criteria) base the capital requirement on the external rating of a securitization exposure or the IRB capital requirement for the pool of assets underlying a given securitization. Capital treatments for liquidity facilities and securitizations containing early amortization provisions also have been specified.

Advanced Measurement Approaches (AMA) to Operational Risk	An explicit charge for operational risk was discussed in the context of capital requirements for other risks that the Committee believed to be sufficiently important for banks to devote the necessary resources to quantify and to incorporate into their capital adequacy determinations. Reference was made to a range of possible approaches for assessing capital against this risk.	The internal measurement approach (IMA) was introduced in CP2 for determining capital for operational risk. Subject to meeting a set of qualifying criteria, banks were expected to categorize their operational risk activities into business lines. Based on a number of inputs (some to be supplied by the supervisor and others to be estimated by banks themselves), a capital charge would be determined by business line. A floor was established for banks using the IMA below which minimum capital for operational risk could not fall.	The Committee confirmed that operational risk would be treated under Pillar 1 of the proposed New Accord. After extensive consultation with the industry, the advanced measurement approaches (AMA) for operational risk has been developed. The AMA builds on banks' rapidly developing internal assessment systems. Banks may use their own method for assessing their exposure to operational risk, so long as it is sufficiently comprehensive and systematic, subject to satisfying a set of principles-based qualifying criteria. Banks using the AMA may recognize insurance as an operational risk mitigant when calculating regulatory capital. The separate floor on the capital charges for operational risk introduced in CP2 has been abandoned, as noted in the general discussion of the Advanced IRB approach.
Supervisory Review (Pillar 2 of the proposed New Accord)	Four principles of supervisory review were established. In sum, the principles discuss the need for (i) banks to conduct their own assessments of capital adequacy relative to risk; (ii) supervisors to evaluate such assessments and to take appropriate action when necessary; (iii) supervisors to expect banks to operate above the minimum regulatory capital ratios; and (iv) supervisors to intervene at an early stage to prevent capital from falling below prudent levels.	The four principles of supervisory review were further refined in CP2. Reference was made to existing guidance developed by the Committee relating to the management of banking risks. Supervisory expectations regarding the treatment of interest rate risk in the banking book were outlined in this section of CP2.	To help address potential concerns about the cyclicality of the IRB approach, the Committee agreed that a meaningfully conservative credit risk stress testing by banks using the IRB approach would be required to ensure that they are holding a sufficient capital buffer. Additionally, the section on supervisory review (Pillar 2) discusses the need for banks to consider the definition of default, residual risks, credit risk concentration and the risk associated with securitization exposures.

Market Discipline (Pillar 3 of the proposed New Accord)	Some of the Committee's early expectations regarding bank disclosures were outlined. Reference was made to future work aimed at producing more detailed guidance on disclosures of key information regarding banks' capital structures, risk exposures and capital adequacy levels.	A comprehensive framework regarding banks' disclosures was provided. Qualitative and quantitative disclosures by exposure type were outlined. Distinctions were drawn between core and supplementary disclosure recommendations, and those considered requirements.	In response to industry feedback, the Committee completed efforts to clarify and simplify the market discipline component of the proposed New Accord. The aim was to provide third parties with enough information to understand a bank's risk profile without imposing an undue burden on any institution. The disclosure elements have been streamlined to accomplish this objective, and are now regarded as requirements.