### Mr McDonough discusses issues of credit risk management and the level playing field

Speech by the President and Chief Executive Officer of the Federal Reserve Bank of New York, and Chairman of the Basle Committee on Banking Supervision, Mr William J. McDonough, at a conference on "The Challenge of Credit Risk" in Frankfurt am Main on 24/11/98.

I am pleased to be here today to discuss issues of credit risk management and the level playing field. This conference on credit risk provides a focal point for discussion at a time when the credit risk management process is undergoing rapid change. I congratulate President Tietmeyer, the Deutsche Bundesbank and the Zeitschrift fuer das gesamte Kreditwesen on bringing us together for this thought-provoking program.

Ensuring a level playing field was one of the two major goals of developing the Basle Capital Accord, the other being to ensure a safe and sound banking system through adequate capital. The Basle Committee now is engaged in a fundamental review of the Accord, and one important aspect receiving careful consideration is the changed landscape of the playing field since 1988.

The supervisors' interest in the playing field, to be sure, is not limited to the nature of the players and their competitive positions. Given the importance of credit and liquidity to the overall economy, supervisors also have a strong interest in the broader issues of how capital rules will affect the shape and functioning of the financial markets overall.

One implication is already clear -- that the capital rules need to have the broadest possible applicability to be effective not just to meet both goals of the Basle Accord, but also to ensure the soundness and stability of the financial system more generally. Thus, after describing some of the challenges in designing a 21st century capital framework for an altered playing field, I will address two broad risk management considerations. The first is how competition has been reshaping the credit cycle in the recent past. I believe strongly that increased competition has raised the ante for financial institutions and supervisors alike in their need to develop improved tools to assess risk and to evaluate the relationship between risk and return. The second is how competition is redistributing credit risk in the financial system and how that affects the credit risk that remains with financial institutions. Here, too, I believe that competition has raised the stakes for all financial institutions, and banks in particular, in their need for a comprehensive and consistent credit strategy across all product lines. Moreover, these changes have implications for the supervision of capital adequacy, and not only the design of a regulatory minimum capital standard, an issue I will return to later.

## Changes in Competition

The competitive landscape of the credit markets has shifted dramatically in the decade since the announcement of the Basle Accord. Three features in particular stand out. First, international competition now reaches banks in developed and emerging market countries alike, even in what were previously thought to be solely domestic markets. Second, large banks now compete head-to-head with nonbank financial institutions, especially securities firms, in a variety of product markets globally. Probably nothing has underscored the extent of this head-to-head competition more than the entry of investment banks into the syndicated lending business in the mid-1990s and the subsequent erosion of spreads and nonprice lending terms, while commercial banks have entered the high-yield bond underwriting business.

Third, the relationship between banks and their highest quality government and business customers has changed, to varying extents in different countries. Even here in Germany, the

country virtually holding the patent on the concept of Hausbank, we see change. Whether in Germany or elsewhere, customers have turned to the capital markets to obtain less costly financing. The top-rated customers often provide more business to banks in foreign exchange and over-the-counter derivatives than in traditional lending. In addition, large nonbank pools of capital, such as mutual funds and pension funds, have shown an increasing appetite for less than investment-grade securities, at least until recently. These nonbank pools of capital themselves represent one of the most important forces reshaping the playing field, since they significantly erode the historical comparative advantage of banks in bearing credit risk.

International competition and nonbank competition have clear implications for the future capital framework if it is to meet the goal of a level playing field. We must ensure that bank supervisors in every country have in place meaningful minimum capital requirements based on a common notion of bank soundness and the power to enforce those requirements. With respect to minimum capital requirements, it seems unlikely that one size will fit all. We can, however, strive to develop a capital framework in which banks bearing similar risks face similar levels of minimum capital while complying with requirements that are appropriate to the bank's activities and level of sophistication. Analogously, a long-run goal of bank and nonbank supervisors alike should be to put their capital regimes on a more nearly common conceptual footing -- not necessarily with identical requirements, but with a greater degree of comparability.

#### Risk, Return and the Credit Cycle

Increasing competitive pressures and the changed playing field have contributed to important changes in the dynamics of credit markets. A concern for supervisors is the tendency of credit markets to bid down spreads rather sharply in the optimistic phase of the credit cycle, often to the point where returns no longer seem commensurate with risk. Then, as problems emerge, lenders in the credit markets pull back and cause spreads to reverse sharply. This is by no means always a simple, up and down process. I recall the bumpy landing of the high-yield bond and leveraged buyout lending markets in the United States at the end of the 1980s. After several liquidity interruptions resulting from failed deals in the late 1980s, the market finally settled into a pronounced downturn which culminated in the failure of Drexel Burnham Lambert in 1990 and substantial losses from bridge loans and leveraged buyout credits at many securities firms and banks.

Those events from the late 1980s illustrate market dynamics which have been repeated more than once in the last decade -- in Latin American investment and lending in the mid-1990s, for example, and in Asia, Russia, and related markets in the late 1990s. Credit to highly leveraged hedge funds and similar institutions probably falls into this pattern as well. The common theme is an initial rapid expansion of credit accompanied by falling spreads, followed by a curtailment of activity and a dramatic widening of spreads. Usually, market participants suffer substantial losses in that second phase. Often it seems that the longer and more buoyant the optimistic phase of the cycle, the greater the damage when the pessimistic phase sets in.

After the early 1990s, when many banks experienced severe credit losses, some set about identifying ways to better assess and control credit risks. That early 1990s experience appears to have sharpened the awareness of banks of the asymmetric and cyclical nature of returns in credit markets. That is, credit involves a limited upside and a large potential downside, with the potential depth of the downside becoming convincingly apparent only after the downturn has begun.

The losses in the early 1990s prompted banks to find new methods to evaluate both the risks and the returns in credit activities. These methods included more refined internal rating systems to describe credit quality, analysis of historical loss rates, default probability models, portfolio credit risk models and, more recently, stress testing. As new tools are developed, they are being combined with others to refine the bank's understanding of its credit risk relative to its return. Because the returns in credit activities are asymmetric and cyclical, new approaches to measuring and analyzing credit risk easily become data-intensive and analytically complex.

Can we moderate the sharp turns in the credit cycle? I believe that targeting returns commensurate with risk over an appropriately long time horizon is probably the single most important defense against the violent swings in the credit cycle experienced in the 1980s and 1990s. Individual banks can protect themselves if they recognize when margins become too thin to cover risk by restraining their credit activities at those rates, and they can benefit by expanding them when returns have risen enough to cover risk once again.

To limit those market swings, however, the discipline of seeking returns commensurate with risks has to be practiced widely and consistently throughout the financial system. While a single bank may protect itself in the first instance from making loans that allow a borrower to overextend itself, the borrower may still be able to borrow elsewhere, to the detriment of its current lenders.

Risk-return discipline is achievable with even the most basic tools. Discipline has been greatly enhanced at some large, international banks by the simple comparison of credit spreads with historical loss rates on well-defined categories of credit. A useful approach to furthering risk-return analysis is the enhancement of methods to assign internal risk ratings to individual credit exposures. Ratings have long been seen as powerful summary indicators of risk, but a fresh burst of activity appears underway, in which some banks have increased the number of rating categories in order to sharpen distinctions within the credit portfolio. Some banks also are exploring the possibility of validating their internal ratings through the use of information from the equities markets.

Finer risk distinctions, when they reflect the likelihood of default, deterioration and loss, offer banks the possibility of more accurate pricing. An article in the August 1998 Federal Reserve Bulletin provides some evidence of that. Based on data from some 250 U.S. banks and 29 foreign banking organizations, the authors found that the relationship between internal ratings and pricing was very similar to the credit rating and pricing relationships that exist in the bond market, especially for high-grade customers.

Banks which are developing credit models are doing so to deepen their understanding and analysis of the relationship between risk and return in credit activities at the portfolio level. The developers of models believe that, when well thought out, soundly estimated, and designed to capture the relationships between the risks of individual exposures, credit risk models produce risk measures that can reflect portfolio diversification or the lack of it. Such credit models also offer the ability to look at the marginal risk and the marginal return of adding a new transaction to an existing credit portfolio, or removing an old one, allowing a credit officer to understand better whether a loan diversifies the bank's portfolio or increases its concentration.

Taken together, these new tools are expanding the capacity to run realistic stress tests and get a fuller picture of credit risk. Stress testing is the leading technique to assess the direct and indirect effects of unusual market and economic events. It is fundamentally a qualitative and judgmental process, usually superimposed on a more formal, statistical approach to risk measurement.

Management's goal is to identify scenarios, usually low-probability, high-stress events, that could jeopardize the health of the bank. While stress testing has gained prominence in these turbulent times, running "what if" scenarios and following up with management actions has long been a hallmark of excellent financial management.

Although stress testing of market risk exposures has been developing rapidly for several years, credit risk stress testing until recently has been a more difficult, manual process. The description of credit exposures through internal ratings and the use of risk models helps to automate the process, allowing the bank to analyze a larger number of scenarios in more depth. Such stress tests begin at the level of the individual credit or obligor, where able credit officers have long had the ability to identify scenarios most likely to have an adverse effect on the borrower or counterparty. Stress tests then can be taken to the portfolio level to measure the broader effects of adverse market and economic conditions. I believe the real key to this kind of analysis is not extensive data-crunching but fully understanding the credit strategies of the bank and where those strategies may be vulnerable.

## Analyzing Risk and Return as Part of the Supervisory Process

While these new methods of assessing risk and return are to a large extent works in progress, they are likely to have great value well before they are perfected -- if they ever can be perfected. The use of new methods -- initially as a complement to more traditional approaches -- is often a powerful test of their efficacy. For example, many bankers feel that their market risk models were not helpful enough in clearly identifying the risks that generated losses in the market turbulence of the last 18 months and have begun an assessment of their performance. As a result of that review, it is likely that banks will modify their models and the way they use them, most especially by placing more emphasis on and expanding stress testing. Moreover, many are considering ways to integrate the analysis of major risk categories given the links between those risks revealed in the recent market turmoil, such as the link between market and credit losses associated with the Russian default.

As banks use and continue to refine new frameworks for evaluating risk and return, a natural question for supervisors is what use they should make of the new approaches. Let me suggest three reasons why we supervisors should devote attention to them in our own supervisory -- in contrast to regulatory -- activities, and sooner rather than later.

First, by using new methods of relating risk and return, we come to better understand the measures themselves, as well as how the bank understands what risks it is taking and why. Understanding the bank's perception of its performance and comparing it with the supervisor's perspective is a crucial first step to effective supervision and the resolution of problems.

Second, if we believe that a more rigorous consideration of return relative to risk is a crucial discipline for banks and the financial system, we need to know whether an appropriately rigorous decision-making process is in place and well-functioning. This requires supervisors to consider not only asset quality, that is, the risk in the portfolio, but also the bank's pricing process. This broader consideration of both risk and return may then suggest new methods to supplement or deepen our current, well-established approaches to judging the adequacy of credit loss reserves and capital based on the review of asset quality.

Supervisors traditionally have stayed away from forming judgments about the pricing of credit. In part, this stemmed from an appropriate desire to avoid interfering with the basic market forces that set prices for individual credits, and we must continue to avoid such interference. However,

asset quality alone cannot answer the question of how well a bank manages its credit risk, since it sheds no light on whether the bank is adequately compensated for its expected losses and its risk.

Third, new, more incisive measures of risk open up the possibility to increase the comparability across banks. One of our greatest advantages as supervisors is our ability to look across institutions and compare them. The better we can estimate the risk in financial institutions, with these and other measures, the more powerful our comparisons, especially cross-institutional comparisons of risk management, earnings, liquidity management, loan loss reserves, and, of course, capital adequacy. To the extent that banks also disclose robust measures of these risks, market participants will be able to make the same kind of comparisons and exert greater discipline on financial institutions.

# The Importance of a Comprehensive Credit Risk Strategy

A bank's choices about risk and return lie at the heart of developing a credit strategy. Choosing a credit strategy has become more challenging in light of changing competition, not only because larger financial institutions have become more diversified and global, but also because the market distributes credit risk far differently than it did a decade ago. Institutional investors and other nonbank financial institutions hold a larger share of assets and a larger share of credit risk than they did earlier. While this is notoriously difficult to measure, given the many changes in the financial system over the last 10 years, a recent study on systemic risk by the Euro-currency Standing Committee under the G-10 Central Bank Governors documents a shift of financial activity away from the traditional banking sector in many countries.

While an increasing share of conventional credit risk is being intermediated through the capital markets, over time larger banks have increased their involvement in intermediating other risks --market, operational and settlement risks, for example. Experience is showing us that this intermediation of other risks appears always to involve some element of credit risk. It may be explicit credit risk-taking in the form of margin lending, or transactions in the over-the-counter derivatives business, which is basically a credit business. It may take more subtle forms, such as the short-term credit risks in futures brokerage, where the clearing broker stands between the customer and the exchange, or the often underestimated but substantial credit risks in settling foreign exchange contracts. Credit risk may derive from operational risks, buried deep in the details of specific operations which make use of intraday funding or other very short-lived credit. In its broadest definition, credit risk may take the form of the reputational risk that stems from involvement with the wrong customer in a deposit transaction.

Underappreciated and unconventional credit risks have been a theme in major market events since the stock market break in 1987. Such surprises include losses and temporary gridlock in clearance and settlement associated with the stock market break in 1987, the failures of Drexel and Barings, and the emergence of large credit exposures in non-deliverable forwards, repurchase agreements and derivatives associated with emerging market currencies and government securities over the last year.

Credit risk at large banks therefore appears to be becoming less traditional and more complex in nature. That in turn heightens the urgency of the need for every bank to study and update its broad credit strategy. Such a strategy would cover the types of customers, the acceptable relationship between risks and returns, the role of active portfolio management and the degree of diversification that the bank would seek in its businesses. In the days when the predominant credit business in the bank was lending, credit strategy could be largely a matter of the lending area's business plan. Today, however, the board of directors and senior management of a

financial institution need to know that their strategy covers the many activities of the bank in which credit exposure, wherever it is found, is a significant risk.

One lesson we can take away from the events of the last 18 months is that the bank's credit strategy needs to take explicit account of downside scenarios and stress events. Over the last few months, as markets were most unsettled, supervisors and central banks became concerned that banks and other financial intermediaries would not perform their crucial intermediation role. I see it as important that credit strategy in a bank reflects an analysis of potential vulnerabilities of major customers or groups of customers and consideration of reasonable actions the bank could take when distressed circumstances occur. When difficult times as well as good times are factored into the credit strategy, bank management is in a stronger position to develop its plans for capital and liquidity.

Supervisors can pay more attention to the bank's credit strategy, for the same three reasons I cited earlier: to promote sound practices, to ensure that those sound practices are in place and to strengthen our basis for comparisons across banks. Supervisors can explore ways to increase the coherence in the review of credit risk management across the bank, especially to ensure that bank management has articulated a comprehensive credit risk strategy and is measuring its performance against it. Supervisors also can verify that seasoned credit judgment as well as technical analysis is reflected in the credit-granting and monitoring process for trading activities. Many problems of the last 18 months might have been reduced or avoided by more in-depth questioning of the business purpose or strategy of transactions.

## Credit Risk Management and Capital

Let me talk about one last area in which the bank's risk-return discipline within a comprehensive credit strategy matters. That is the assessment of capital adequacy. My comments here are directed less at minimum capital standards than at the way supervisors form judgments about a bank's capital adequacy.

For virtually all banks, credit remains the single largest risk. Credit remains a difficult risk to offset, despite advances in credit hedging techniques, and even diversification has its limitations. As banks think through their own capital adequacy, how they factor in their credit risk profile has a major impact on the amount of capital they will need.

Capital supports the credit risk-bearing activities of the bank in many ways. Clearly, together with reserves, capital should protect the bank against expected and unexpected losses in the credit portfolio, including losses related to reasonable and plausible stress scenarios. But capital also protects the bank against its business risk, that is, the risk that a bank will lose ground relative to its competitors or competing products, and fail to earn a market rate of return in a business. Capital also provides a cushion against the enormous costs of fast-paced technological change, especially in the information systems arena. For example, consider the urgency and the rising cost estimates of Year 2000 remediation, testing and contingency planning efforts.

It follows that every bank needs to assess its risk profile and evaluate what capital it needs to cope with adverse outcomes in normal times and under reasonable stress scenarios. Many banks have started to do so. At some banks, the starting point for that analysis is a set of assessments of market, credit and perhaps operational risk, with some method for adding them up. Another approach might be to build up capital needs business by business, using peer analysis or information from the equities markets. Other approaches are conceivable.

Such self-assessments of capital adequacy appear to be an important step toward introducing new methods of risk evaluation into the capital process. As bank management works through its self-assessment, I would encourage participation by its supervisors, so that management and supervisors have the opportunity to compare perspectives on the nature and amount of the bank's risks, the quality of its risk management, and the adequacy of its capital.

I see informed supervisory review of capital adequacy self-assessments as one part of a three-part framework for capital supervision that consists of a minimum capital requirement, hands-on supervision and enhanced market discipline. The Basle Committee's Steering Group on the Future of Capital, chaired by Claes Norgren of the Swedish Financial Supervisory Authority, plans to bring its thinking on the Capital Accord to the December meeting of the full Committee. The Committee is committed to undertaking substantial work in 1999 in order to be able to publish a consultative paper with its proposals toward the end of 1999, with the goal of beginning the transition to a new capital framework roughly a year later.

Of course, some of the many minimum capital standard options being studied by the Steering Group make use of the new tools of risk-return evaluation I've discussed today, such as internal ratings and credit models. My message today is that we can begin now to place more emphasis on risk-return discipline with an appropriately long time horizon and on a comprehensive credit strategy both in the risk management processes at banks and in our own supervisory process. And we should not allow making further progress in the risk management arena to be dependent on the outcome of discussions of an appropriate minimum capital standard.

As we move forward with the review and revision of the Accord, we plan to stress communication with banking supervisors globally and with supervisors in other key financial industries, such as securities and insurance. We have an especially strong interest in ensuring that the capital framework we develop meets the needs of banking supervisors outside the G-10 countries. At the meeting of the International Conference of Banking Supervisors in Sydney last month, regional associations of banking supervisors discussed the obstacles and challenges they face in implementing the Basle Committee's Core Principles for Effective Banking Supervision. That discussion underscored the importance of simplicity, clarity and continuity with existing approaches for supervisors in many parts of the world.

A parallel dialogue also is necessary with the broad financial community. We will need their input and participation to enable us to develop the structure and key elements of a capital framework, understand its efficacy and incentive effects, and evaluate its robustness. Our intention is to begin an active dialogue with the industry in the next few months, so as to have their involvement from the beginning. That dialogue, I hope, can be extended to rating agencies and securities analysts, who play an important role in market discipline. To conclude, the Basle Committee on Banking Supervision has taken on a challenging agenda; the work on the future capital framework is likely to involve all of the Committee's working groups and a large part of its resources. We look forward to the challenge in the coming year. Our hope is to see through the complexity of financial activity and the variety of supervisory needs across countries and financial institutions in order to identify the most simple, straightforward outlines of a capital framework. If we can identify that framework, we can differentiate it and apply it to banks at the cutting edge of financial engineering or those new to the international markets, to banks large or small, and to nonbank financial institutions.

Ideally, I believe such a framework will include an approach to quantitative capital requirements that offers the possibility of translating our expectations for all types of financial institutions across countries; integrating the quantitative capital requirements with a set of qualitative

expectations for banks in managing their risk and evaluating their capital needs; and relying as much as possible on market discipline, with emphasis on transparency and disclosure.

We will actively seek your suggestions and reactions.