Conference Overview: Major Themes and Directions for the Future

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This special issue of the *Economic Policy Review* presents the proceedings of "Financial Services at the Crossroads: Capital Regulation in the Twenty-First Century," a conference hosted by the Federal Reserve Bank of New York in partnership with the Bank of England, the Bank of Japan, and the Board of Governors of the Federal Reserve System. The conference, held in New York on February 26-27, 1998, examined a wide variety of topics: the impact of capital standards on bank risk taking, new industry approaches to quantifying risk and allocating capital, proposals for reforming the current structure of capital rules, and the role of capital regulation in bank supervision.

Although the speakers at the conference took very different positions on several regulatory capital issues, their papers all directly or indirectly point to one question: Where do we go from here? In this overview, I will try to summarize some of the main themes that emerged from the papers and discussion. I will then suggest what these themes imply for the choices facing financial institutions and their supervisors in the years ahead and for the future of capital regulation as a whole.

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Evolution in Risk Measurement and Management Practices Is Continuous

Risk measurement and management practices have evolved significantly since the Basle Accord was adopted in 1988, and there is every reason to believe that this evolution will continue. In fact, the papers and discussion at this conference suggest that change is the natural state of the world in risk management and that no model or risk management approach can ever be considered final.

Even in a well-developed risk measurement area such as value-at-risk modeling for market risk exposures, innovations and fresh insights are emerging. These advances are the outgrowth of both academic research efforts and financial institutions' day-to-day experience with value-at-risk models. The papers presented in the session on value-at-risk modeling exemplify how academic research can suggest new approaches to addressing real-world problems in risk measurement.

Evolution is even more evident in the developing field of credit risk modeling. As the papers in the credit risk session demonstrate, advances in credit risk measurement are occurring along several fronts. First, financial institutions are refining the basic empirical techniques that they use to assess credit risk. In particular, banks have developed enhanced methods of evaluating portfolio effects—effects shaped by credit risk concentrations and correlations in defaults and credit losses across different positions—and have improved their ability to measure the impact of these effects on the overall credit risk exposure of an institution. In addition, the new empirical techniques allow financial institutions to assess more accurately the risk that each transaction contributes to the credit portfolio as a whole, as well as the risk of each transaction on a stand-alone basis. Thus, credit risk models, although still in the early days of development and implementation, have the potential to deepen banks' and supervisors' understanding of the complete risk profile of credit portfolios.

The discussion during the credit risk session revealed that there are many approaches to credit risk modeling and a variety of applications. The diversity of ideas about credit risk modeling is the sign of a healthy climate of exploration and development, which should lead to improved modeling techniques and a more effective use of models' output by financial institutions making internal risk management, capital allocation, and portfolio decisions.

Rapid Changes in Risk Management Require Corresponding Changes in Supervisory Direction

The rapid evolution in financial institutions' risk management practices presents a substantial challenge to supervisors. As several of the conference papers make clear, the impact of supervisory rules and guidelines—especially regulatory capital requirements—can vary substantially as the financial condition, risk appetite, and risk management approaches used by financial institutions change, both across institutions and for a given institution over time. In an environment in which financial institutions are developing new and increasingly complex methods of assuming and managing risk exposures, regulatory capital requirements and other supervisory practices must continually evolve if they are to be effective in meeting supervisory objectives. Simply keeping up with innovations in the measurement and control of risk is therefore a vital task for supervisors, although merely a starting point.

The speakers in the opening session of the conference argued that regulatory capital requirements and other supervisory actions can have significant effects on the risk-taking behavior of financial institutions. In response to capital requirements, banks adjust their risk profiles, altering the overall level of risk undertaken and shifting their exposures among different types of risk that receive different treatments under regulatory rules. Further, the speakers indicated that each bank's response to changes in regulatory capital requirements will depend on the capital constraints faced by the bank. Banks under more binding capital constraints may have greater incentives to engage in "risk shifting" and other practices to reduce the constraints from regulatory capital requirements. Taken together, these findings suggest that supervisors must pay attention to the incentive effects of regulation as well as the evolution of risk management practice in the industry.

The discussion in several sessions offers a corollary to this last point, namely, that supervisors have many ways to adapt their practices in response to industry developments. They can, for example, build on the incentives that already motivate financial institutions to improve their risk measurement and management capabilities. Expanding the use of risk measurement models for regulatory capital purposes—as some observers now suggest in the case of credit risk models—is only one way in which supervisors can take advantage of existing advances in risk management within financial institutions. Improved risk management techniques can also enhance the ability of supervisors to monitor the risk profiles of financial institutions and to assess both the strengths and the vulnerabilities of the financial institutions under their charge. Although the focus of this conference is regulatory capital, we should not lose sight of the fact that supervisors can use innovations in risk management to deepen their understanding of the risks facing financial institutions.

"One-Size-Fits-All" Capital Rules Will Be Ineffective

As financial institutions become more complex and more specialized, "one-size-fits-all" capital rules are more likely to be ineffective or to induce unintended and undesirable reactions. Perhaps the most significant theme to emerge from the discussion at the conference is the idea that such "one-size-fits-all" approaches to capital regulation will fail in the long run. Conference participants suggested that in the future, supervisory practice and capital regulation will be based less on specific rules and prescriptions and more on a system of general principles for sound and prudent management. This change will come about in part because supervisors will find it harder to formulate precise rules to regulate the increasingly sophisticated activities of financial institutions. However, a more important reason for the change—raised in several of the papers in this conference—is the difficulty of crafting effective regulatory capital requirements when the circumstances and characteristics of individual financial institutions heavily influence the way in which each institution responds to any particular set of rules. Thus, a single rule or formula could have quite different effects across institutions—effects that could diverge markedly from those intended by supervisors.

This last point was made forcefully in the session on incentive-compatible regulation and the precommitment approach and in the session on the role of capital regulation in supervision. Papers presented in both sessions stressed that effective regulatory capital regimes must take into account the risk profile and characteristics of individual institutions. Some participants suggested that this principle should guide the choice of a scaling factor in the internal models approach to market risk capital requirements; others applied it to the choice of a penalty in the precommitment approach; still others related it to the overall nature and structure of regulatory capital requirements.

This principle also emerged, in a slightly different form, in the sessions on value-at-risk and credit risk modeling. The papers presented in these sessions used a variety of modeling approaches, reflecting in part contrasting views of the objectives of risk modeling. Participants took different positions on the best method of modeling market and credit risk and of determining an institution's optimal level of capital, suggesting that no single formula for setting capital requirements would be optimal for all institutions.

Financial Institutions and Supervisors Face Challenges for the Future

The issues that I have discussed define the challenges facing financial institutions and supervisors entering the twenty-first-century world of supervisory capital regulation. For financial institutions, one key challenge is to determine how best to measure the types of risk they face. The discussion over the past two days has highlighted a number of areas in credit risk modeling that deserve further attention—including the shortage of historical data on default and credit loss behavior, the difficulty of comparing models and modeling approaches across institutions, and the need to develop methods of model validation. Although these issues are indeed the focus of much attention, banks and other financial institutions are also attempting to understand and manage other important forms of risk—such as operational and legal risk—that are just as complex and less easily quantifiable. Finally, financial institutions face the challenge of implementing advances in risk modeling in a coherent and systematic fashion, whether for pricing, portfolio management, or internal capital allocation.

For supervisors, the most important challenge involves developing an approach to capital regulation that works in a world of diversity and near-constant change. The papers presented at this conference provide evidence of an active effort to meet this challenge. Supervisory capital requirements will undoubtedly continue to evolve, reflecting innovations in risk management and measurement at financial institutions as well as changes in supervisors' views of the appropriate capital regime. Whatever the approaches eventually adopted, the next generation of supervisory capital rules must take into account the vital role of incentives in determining the behavior of financial institutions.

Financial institutions and supervisors alike must consider how the adoption of new approaches to capital regulation will affect the overall level of capital in financial institutions and the relationship between required capital and economic capital. To this end, we must address a series of key questions about capital regulation: What risks should be covered through capital requirements? How do we decide on the level of prudence? What is the role of minimum capital requirements? And what is the supervisor's role in the assessment of capital adequacy? A number of the papers given over the past two days have taken up these vital questions, and the next step is to develop our thinking on these key issues in a more systematic way.

More fundamentally, we need to give fuller consideration to the purpose of capital, as it is seen by financial institutions on the one hand and by supervisors and central bankers on the other. In addition, we need to understand the relationship between these two perspectives, and to evaluate how this relationship could influence capital adequacy and the incentives to assume and manage risk under various regulatory capital frameworks. This task involves developing a better grasp of the objectives of capital regulation in light of the rapidly changing character of financial institutions, the availability of new risk management techniques, and the need for systemic stability.

The challenges highlighted here create a substantial agenda for future research. The need for additional research, together with the enormous interest that this conference has generated, suggests that it would be wise to establish a forum for further analysis and discussion of capital regulation issues. As a first step, a series of seminars on technical issues might be held. These seminars would be conceived as an open exchange of ideas rather than a decision-making or advisory initiative. Such efforts to foster an ongoing dialogue and to build consensus among academics, supervisors, and industry practitioners on regulatory issues could be extremely beneficial. Certainly, the resolution of these issues—or the failure to resolve them in an intelligent fashion—will shape the future course of capital regulation for financial institutions.