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Negotiating Basel II

Despite the initial push from the US Congress and a few interventions by government officials in other countries, banking supervisors were generally left to implement Basel I as they saw fit, using their existing regulatory authority. The Basel II process has been an altogether different story. Even more than Basel I, it has resembled a trade negotiation, with extensive political and constituency involvement at times submerging the spirit of regulatory cooperation traditionally central to Basel Committee activities. And yet no national regulator knew at the outset exactly what outcome it wanted. Thus, there has at other times been a peculiarly experimental feel to the exercise, resembling more an innovative but halting domestic regulatory reform effort. As the history of the negotiation set forth in this chapter will illustrate, it is difficult to avoid the conclusion that key participants in the process made a series of technical and political misjudgments that have prolonged, complicated, and ultimately marred the Basel II enterprise.

Launching the Review Process

From the outset, banking supervisors were aware of many of the weaknesses of Basel I. Some resulted from compromises necessary to secure international agreement, as detailed in the preceding chapter. Another was that, even after the market risk amendment in 1996, important bank risks were not subject to capital regulation.[1] Still others, such as the arbitrary

1. Foreshadowing Basel II, operational risk was most frequently mentioned, although the use of capital charges to manage operational risk has been controversial.

nature of the number and weightings of risk categories, were accepted as a necessary feature for an administratively workable set of rules. The resulting potential for regulatory arbitrage was also anticipated, even if the most troublesome forms of that arbitrage were not specifically foreseen. Thus, while further refinements to Basel I would not have been surprising, one might not have expected a fundamental overhaul of the capital accord to begin less than a decade after the original rules took effect. However, the acceleration of two trends made the case for an overhaul seem reasonable to the Basel Committee as a whole and compelling to Federal Reserve officials.

One development was the rapid increase in securitizations of mortgages and other loans by US and, to a lesser degree, other developed country banks in the decade following negotiation of Basel I. As noted in chapter 3, many securitizations were undertaken primarily for nonregulatory reasons, such as reducing interest rate exposure. However, even these securitizations can have a regulatory arbitrage effect if, as was often the case, the assets retained by the bank bear a higher risk of loss than the securitized portfolio of loans as a whole. Once the Basel I rules were operative, banks recognized that the innovative securitization techniques originally devised for business reasons also provided a major arbitrage opportunity. Supervisors became increasingly concerned with the resulting divergence of regulatory capital requirements from actual credit risk. By the mid-1990s, regulatory arbitrage through the use of nontraditional financial instruments was regarded as a serious problem with Basel I, and securitization was identified as the most prominent form of this arbitrage.[2]

The second development was a series of advances in the internal risk management techniques of large banks. Most important among these was the increasing use of credit risk models for risk assessment purposes. As the proliferation of new instruments made the credit risk profile of banks more complex, the industry was devising new methodologies to mange

2. Laurence Meyer, a member of the Federal Reserve Board closely involved in bank supervision, explicitly identified regulatory arbitrage as the "bad news" about capital standards, because it was making them "increasingly less meaningful and progressively undermined." He specified securitization, along with credit derivatives, as his principal concerns. See Laurence Meyer, "Increasing Global Financial Integrity: The Roles of Market Discipline, Regulation and Supervision," remarks at the 16th Annual Monetary Conference, Money in the New Millennium: The Global Financial Architecture, Cato Institute, Washington, October 22, 1998. Alan Greenspan and William McDonough similarly pointed to securitization as presenting a major challenge to the Basel I rules. These officials acknowledged that a measure of regulatory arbitrage was not necessarily undesirable given the bluntness of the Basel I rules, but they noted that the arbitrage process itself entailed costs and, more importantly, that the arbitrage highlighted the inadequacy of Basel I as a regulatory device. See Greenspan (1998); and William McDonough, "Issues for the Basel Accord," remarks at the Conference on Credit Risk Modeling and Regulatory Implications, London, September 22, 1998.

this risk. The use of these new methods underscored the degree to which a risk weight assigned to an asset or asset equivalent under Basel I could diverge from the bank's best estimate of the actual risk created by that exposure. The effect was both to facilitate regulatory arbitrage and to erode confidence that Basel I was an effective regulatory tool.

During the mid-1990s, the Capital Subgroup of the Basel Committee, chaired by Claes Norgren of the Swedish Financial Supervisory Authority, examined the implications of these and related developments for the accord. Most members of the committee seemed content to let work proceed in this low-profile, deliberate fashion. However, Federal Reserve officials became increasingly outspoken in calling for significant change in capital regulation. As early as May 1996, Federal Reserve Chairman Alan Greenspan publicly stated that the weaknesses in Basel I were becoming "ever more evident" and suggested that credit risk models had implications for capital regulation.[3] In December of that year the *American Banker* published a story, based on information from unnamed Federal Reserve officials, reporting that the Fed was considering far-reaching changes in the Basel I rules.[4]

The growing impetus for change was both reflected and strengthened at a February 1998 conference hosted by the Federal Reserve Bank of New York and cosponsored by the Bank of England, the Bank of Japan, and the Board of Governors of the Federal Reserve.[5] Government officials and bankers pointed to the limitations of Basel I in their remarks at the conference, while economic staff from the supervisory agencies and academics delivered papers exploring alternative approaches to capital regulation, including the use of banks' credit risk models as a basis for regulatory capital.[6] Although officials from the Federal Reserve Bank of New York were more tentative in their comments, Chairman Greenspan made a very strong case for change, and throughout 1998, calls for change in Basel I became a regular theme in public statements of Federal Reserve officials concerning bank regulation.[7]

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3. See Jaret Seiberg, "Greenspan Hints at Revision in Capital Rules on Credit Risk," *American Banker*, May 3, 1996, 1.

4. See Jaret Seiberg, "The Fed Considers Sweeping Changes In Risk-Based Capital Requirements," *American Banker*, December 13, 1996, 1.

5. Papers and speeches presented at the conference, entitled "Financial Services at the Crossroad: Capital Regulation in the Twenty-First Century," are reproduced in the October 1998 issue of the *Federal Reserve Bank of New York Economic Policy Review.*

6. Some officials also promoted as a possible alternative the so-called "precommitment" approach to capital regulation. This approach, evaluated in chapter 7, was eventually abandoned in favor of the internal ratings–based method.

7. See Greenspan (1998); Clay Harris, "Call to Revise Banks' Capital Adequacy Rules," *Financial Times,* September 22, 1998, 4; Laurence Meyer, "Increasing Global Financial Integrity:

Meanwhile important segments of the banking industry were also calling for change. Executives from individual banks and officials of trade associations such as the American Bankers Association and the Institute of International Finance (IIF) emphasized the contrast between the blunt Basel I approach and the increasingly sophisticated credit risk assessments generated by the models and other internal risk management techniques used by large banks. Shortly after the Fed conference, the IIF issued a report criticizing Basel I as "flawed" and calling for supervisors to move toward the use of banks' internal models as the basis for capital regulation (Institute of International Finance 1998).

Despite the growing agitation for change by banks, the Federal Reserve was still the only supervisory agency actively and publicly suggesting that modification—perhaps fundamental modification—of the Basel I standards was necessary. At the February 1998 Fed conference, Tom de Swaan, the Dutch chairman of the Basel Committee, delivered remarks on the reasons for considering major change in Basel I that, while not inconsistent with those of Fed officials, were considerably more guarded (de Swaan 1998). Indeed, de Swaan's principal emphasis was the need to maintain existing capital levels no matter what revisions were made, and he even hinted that higher levels might be necessary. He also sounded a note of caution on the degree to which supervisors could rely on market-generated capital levels.

Even in the United States, the other bank supervisory agencies had not joined the Fed's public calls for change. At a December 1997 conference, Comptroller of the Currency Eugene Ludwig gave a speech on capital regulation in which he made observations about the changing nature of banking, asked questions about the right approach to bank regulation, and provided a brief history of capital requirements, but did not call for a major change in Basel I.[8] Officials at the Federal Deposit Insurance Corporation (FDIC) and the Office of Thrift Supervision, the other two federal banking agencies, had not spoken publicly on the issue at all.

In early 1998, then, change in Basel I seemed nearly inevitable, but the pace and direction of change were quite unclear. Unlike prior major Basel Committee initiatives, this one was not impelled by a crisis specific to

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The Roles of Market Discipline, Regulation and Supervision," remarks at the 16th Annual Monetary Conference, Money in the New Millennium: The Global Financial Architecture, Cato Institute, Washington, October 22, 1998; and Susan M. Phillips, remarks at the International Swaps and Derivatives Association, 13th Annual General Meeting, Rome, March 26, 1998. Federal Reserve staff, normally very circumspect in their public comments on policy issues, were unusually outspoken at this conference. Press accounts quoted a staff economist as having characterized Basel I as a "lose-lose proposition" and saying that "[w]e should begin yesterday to reconstruct the accord."

8. See Eugene A. Ludwig, remarks to the Federal Financial Institutions Examination Council, December 12, 1997.

banks in member countries.[9] When Federal Reserve Bank of New York President William McDonough succeeded de Swaan as chair of the Basel Committee in June 1998, the momentum for change strengthened. In July, at the first meeting chaired by McDonough, the committee agreed to a thorough review of the Basel Accord. In September McDonough laid out the rationale and process for what he characterized as a "major effort" to revise the accord.[10]

The process was clear enough: While McDonough set no timetable in his September speech, he reported that the committee recognized "the need to move expeditiously, and to make significant progress in the next one to two years." In another speech two months later, he revealed that Claes Norgrens' group, now renamed the Steering Group on the Future of Capital, was to report back to the full committee at its December meeting. Furthermore, the committee "was 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."[11] In conducting its review, the committee would consult with banking supervisors in non–Basel Committee countries, with supervisors of nonbank financial institutions, and with financial institutions themselves.

The rationale for an overhaul of Basel I was also clearly stated. McDonough began by observing that competition in the industry had become even more intense and more global since Basel I. Like other supervisors, McDonough pointed to "sophisticated arbitrage strategies," notably securitization and credit derivatives, as having both complicated the task of understanding the risk positions of banks and undermined the utility of Basel I. He questioned the wisdom of reliance on quantitative capital

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9. The creation of the Basel Committee was itself the result of the 1974 crises at a number of G-10 banks. Similarly, Basel I resulted from the series of events set in motion by the Latin American debt crisis of the 1980s, and revisions to the Basel Concordat were made after the failure of the Bank of Credit and Commerce International in 1990. Although the worldwide financial turbulence from July 1997 to March 1999 provided a dramatic backdrop for the beginning of the Basel II process and underscored some of the flaws in the Basel I rules, G-10 country banks had not generally been seriously affected. Still, the crisis underscored the important role of capital regulation in financially significant countries. Reductions in lending to Southeast Asian countries by troubled Japanese banks may have contributed to the onset of financial crises in those countries. Moreover, several large banks did have exposure to the highly leveraged Long-Term Capital Management (LTCM) when that firm failed in the fall of 1998. Because the Federal Reserve Board of New York adroitly orchestrated the equivalent of a debt workout so as to forestall the dumping of LTCM's assets in order to repay banks, a crisis was avoided. However, the banks' exposure to a highly leveraged hedge fund served as another reminder of just how much bank exposures had changed in the preceding decade.

10. See William McDonough, "Issues for the Basel Accord," remarks at the Conference on Credit Risk Modeling and Regulatory Implications, London, September 22, 1998.

11. See William McDonough, "Credit Risk and the 'Level Playing Field'," remarks at the Conference on the Challenge of Credit Risk, Frankfurt am Main, Germany, November 24, 1998.

regulation alone, suggesting that ongoing supervision and market discipline should play important roles in assuring the adequacy of bank risk management. Finally, he noted the need to attend to operational risk and "stress loss potential" (i.e., low-probability but high-severity events that could threaten a bank's viability).

As to what the Basel Committee review might actually yield, however, McDonough was vague. He mentioned only two elements of what he anticipated would be a revised capital framework: first, an approach to capital requirements that could apply across countries and types of financial institutions, and second, the integration of quantitative capital requirements with "a set of qualitative expectations for banks in managing their risk and evaluating their capital needs." He provided no blueprint for how these aims would be accomplished. Although he mentioned credit risk models several times, he did not propose that the revised accord use those models as the basis for establishing regulatory capital requirements.

Neither did McDonough indicate whether the new regulatory requirements—however determined—should result in bank capital being higher, lower, or about the same as existing levels.[12] In fact, in marked contrast to the explicit Basel I aim of raising capital levels, nearly all participants in the public discussion preceding the launch of the Basel II process had studiously avoided this question. Generally, advocates of change suggested that capital requirements might go up for some kinds of lending and down for others, in accordance with the idea that regulatory capital should better align with economic risk. While large banks might have assumed that any such realignment would reduce the total capital requirement for their individual institutions, no supervisor had predicted such an outcome, much less committed to it—at least not publicly. Whatever the private views of bank supervisors, the financial uncertainty engendered by the Asian financial crisis, Russia's default on certain of its sovereign bonds, and the collapse of Long-Term Capital Management made the fall of 1998 a less than propitious time to suggest that banks could safely hold lower levels of capital.[13] Indeed, the most direct

12. McDonough alluded to a trend "observed until recently" for spreads in lending to erode "to levels which were worrisome" and a consequent reemergence of concern about the capital adequacy of "banks in some countries." However, the fact that he used the past tense suggested that these worries had abated. Moreover, he suggested later in his speech that capital requirements might be too high for certain kinds of lending, such as to highly creditworthy corporations (ibid., footnote 11).

13. For similar reasons, those involved in the early stages of Basel II never thought seriously of changing the 8 percent capital requirement of Basel I. Of course, by altering risk weights, the committee could achieve the same end as by changing the percentage of those risk-weighted assets required to be held as capital. But the optics of the change would be less dramatic.

comments by supervisors on the issue of capital levels—from Claes Norgren and Tom de Swaan—suggested that prevailing capital levels might be too *low*.[14]

Curious Release of the First Consultative Paper

In light of the expectations for far-reaching change raised during 1998, the committee's consultative paper issued in June 1999 (Basel Committee 1999b) was something of an anticlimax. Indeed, paradoxical as it might sound, the paper managed to be both anticlimactic and contentious. Subsequently referred to as the first consultative paper, or CP-1, it disappointed those who favored using internal credit ratings or credit risk models as the basis for capital regulation. It did not put forward proposals for either of these new paradigms for capital regulation. Instead, it built on the basic methodology of Basel I.

Although it revised rather than overhauled the capital scheme for credit risk, the committee indicated its intention to extend capital charges to operational risk and, for banks whose interest rate exposure was significantly above average, to that risk as well. The committee placed all the quantitative capital requirements in the context of what it described as a "three-pillar" approach. The capital rules were to be the first pillar, a robust supervisory review process the second, and market discipline the third. The committee stated that, under the second pillar, supervisors should have the ability to require banks to hold capital above the regulatory minimum. Under the third pillar, banks would be required to disclose more information that would enable market actors to make better assessments of the banks' risk positions. Pillars 2 and 3 were more suggestive than fully realized. The committee's work had been focused principally on pillar 1, as it would continue to be right through completion of the revised framework. As a result, while the "three pillars" define Basel II, they support a rather skewed edifice.

The most prominent, and controversial, innovation in the Basel I methodology was the committee's proposal to use ratings from "external credit assessment institutions," such as Moody's or Standard & Poor's, as the basis for assigning rated borrowers to a risk bucket (see box 4.1 for a summary of the CP-1 proposal.) Only one additional risk bucket would be created (a 150 percent risk weighting), but the use of external credit ratings would allow differentiation of risk weightings among corporate, sovereign, and bank borrowers. (Table 4.1 outlines the relationship between

14. At the same September 1998 conference at which McDonough laid out the agenda for revision of Basel I, Norgren was quoted as having said "[w]e have learned that the minimum is often not enough when the times get rough." See Clay Harris, "Call to Revise Banks' Capital Adequacy Rules," *Financial Times,* September 22, 1998, 4.

Box 4.1 Basel Committee proposals in the first consultative paper

Scope

- extension of capital requirements to holding companies that are parents of banks

Pillar 1: Minimum Capital Requirements

- use of credit ratings by external agencies for risk-weight determinations of exposures to sovereigns, banks, and corporations (table 4.1)
- use of credit ratings by external agencies for differentiating risk weightings of securitization tranches
- imposition of 20 percent conversion factor for off-balance-sheet commitments of less than one year
- statement of intention to develop internal ratings–based approach for large banks
- imperfect hedges recognized as partial credit risk mitigation in case of maturity mismatch between exposure and hedging instrument

Pillar 2: Supervisory Review of Capital Adequacy

- expectation that banks will operate above minimum capital levels and that supervisors have the ability to require higher capital level
- expectation that banks have an internal process for assessing capital needs
- supervisors should review banks' internal capital assessment and strategy
- supervisors should have approach for identifying and intervening in banks where capital levels are falling relative to risk

Pillar 3: Market Discipline

- generally stated expectation for bank disclosure of capital structure, risk exposures, and capital adequacy

Source: Basel Committee (1999b).

specific agency credit ratings and regulatory capital requirements.) The aim, of course, was to align the capital requirement for a given exposure more closely with actual credit risk. CP-1 also proposed special rules to deal with retained interests following securitizations, adjustments to capital requirements for certain credit risk mitigation measures taken by banks, consolidation requirements intended to reduce "double gearing," and a number of discrete changes to address other deficiencies of Basel I.

Table 4.1 External agency ratings and risk weights in the first consultative paper (percent)

Claim	AAA to AA−	A+ to A−	BBB+ to BBB−	BB+ to B−	Below B−	Unrated
Sovereigns	0	20	50	100	150	100
Bank option 1	20	50	100	100	150	100
Bank option 2	20	50	50	100	150	50
Corporations	20	100	100	100	150	100

Note: Risk weights illustrated using Standard & Poor's rating categories. Bank option 1 is based on risk weighting of sovereign in which bank is located. Bank option 2 is based on a rating agency assessment of the individual bank.

Source: Basel Committee (1999b).

The issue of internal credit ratings was not ignored.[15] The paper declared that the committee intended to issue a proposal for the use of banks' internal credit ratings in the calculation of regulatory capital (Basel Committee 1999b, paragraph 7). Although it was a bit ambiguous on the point, the committee seemed to suggest that it would complete that proposal during the year 2000—that is, within the same time frame as it finalized changes to the more conventional approach set forth in CP-1. The committee devoted several pages to rehearsing the benefits, drawbacks, and challenges of an internal ratings–based (IRB) approach to capital regulation. Yet, even as it essentially promised that an IRB proposal would be forthcoming, it gave no hint of the specifics that would successfully overcome the challenges in order to realize the benefits.

The CP-1 release was puzzling. It was certainly not a surprise that the committee had been unable to fashion an IRB approach in the less than 12 months since it had begun a formal review of Basel I. On the contrary, in the intervening period it had become reasonably clear that, notwithstanding the enthusiasm of some policymakers and Federal Reserve staff for moving forward, regulators were not yet convinced that there was a sound basis for doing so. Summarizing the September 1998 conference at which McDonough had laid out the agenda for revising Basel I, Bank of England staff observed that there were "significant hurdles that will have to be overcome" before banks' own systems could be used to set regulatory capital requirements (Jackson, Nickel, and Perraudin 1999, 100).

Ongoing work by the Models Task Force of the Basel Committee (which included many of the participants in the London conference) was

15. Echoing the conclusions of its staff study, the committee noted briefly that the use of full credit models might someday have promise but that "significant hurdles" of data reliability and model validation precluded any near-term proposal for their use in capital regulation. It committed itself only to monitor developments in the credit risk modeling area and to maintain a dialogue with industry (Basel Committee 1999b, paragraphs 52–53).

reaching the same conclusion, as eventually reported in a study issued shortly before CP-1 (Basel Committee 1999a). Although, strictly speaking, this judgment was made with respect to the use of full credit models, rather than with respect to the more limited step of using internal credit risk ratings, the analysis implicated the latter as well. The paucity of reliable data, which along with model validation was identified as a key hurdle to be overcome, applied to internal credit risk ratings just as to full-fledged modeling. A contemporaneous study by two Federal Reserve economists on risk rating by large US banks had found the state of their ratings systems less advanced than had been widely assumed (Treacy and Carey 1998).

The authors of the papers cited in the preceding paragraphs were not pessimistic about the potential for using banks' internal systems for regulatory purposes. They did, however, imply that an extended period of study and validation would be needed before a regulatory application of the internal systems could be deemed feasible. How, then, could the Basel Committee commit to advancing within a year a proposal for just this kind of application? And why had it rushed out a proposal for modifying what was becoming known as the "standardized" approach to capital requirements? McDonough had suggested in the fall of 1998 that the committee's proposals would be released toward the end of 1999. Yet the committee was beating its own deadline by six months. Might not the additional time have been profitably used to determine whether an IRB approach was feasible in the medium term?[16]

Discussions with some who followed or participated in the committee's work in 1999 do not yield clear and consistent answers to these questions. It appears that the committee, under pressure (some of it self-generated) to make capital regulation more sensitive to the credit risk actually assumed by banks, was attempting to improve the method that would remain applicable to the vast majority of banks, while assuring large banks that the goal of using internal risk systems for regulatory purposes had not been abandoned. A related factor may have been a desire to provide regulators in emerging-market countries with rules appropriate for their banking systems, a number of which had been badly disrupted by the inadequate regulation prevailing before the Asian financial crisis (although reliance on external ratings would be particularly inapposite in emerging-market lending). One banking industry observer even suggested that CP-1 was rushed in order to be done in time for the G-7 finance ministers' meeting in preparation for the Köln Summit, presumably so the ministers

16. The committee had actually completed the bulk of its work on CP-1 several months earlier. A press conference to issue the paper was scheduled for April 9, 1999, but a disagreement between Germany and other committee members on the risk weight to be assigned to commercial mortgages delayed release of the proposal for two months.

could note progress in reforming this part of the financial system in the wake of the 1997–98 emerging-market financial crisis.[17]

Whatever the committee's reasoning for the timing and contents of CP-1, the paper was not well received. Public criticism, somewhat muted in the months immediately following the CP-1 release, picked up in the fall. By the time of the March 31, 2000 deadline for written comments to the Basel Committee, nearly 200 had been received. Although the committee chose not to publish the comments, enough were released by their originators to give a fairly good picture of the views presented.[18] The complaints were directed both at what the committee had included and what it had omitted.

Despite the obvious advantage of allowing differentiated risk ratings for borrowers of the same type (e.g., corporations, sovereigns), reaction to the committee's proposal to use external agency ratings was largely negative. Even some US regulators were skeptical. Just a few days after the CP-1 release, newly appointed Comptroller of the Currency John D. Hawke said he did "not believe that the external ratings approach alone will go very far in solving the problems of the current accord."[19] One problem was that most borrowers did not have agency credit ratings, presumably because they did not issue substantial amounts of debt in public capital markets. Thus, small borrowers were placed at a fundamental disadvantage. Even most corporate borrowers, at least outside the United States, were not rated by external agencies.[20] Since a borrower that did not have an external rating would be treated much as under Basel I, CP-1 promised little increased risk sensitivity for broad groups of borrowers. A second problem was that agencies rated borrowers, not specific loan facilities. The credit risk entailed in lending to a specific borrower can vary depending on the terms of the particular facility.

A third problem was that agency ratings for sovereign borrowers had recently proven less than reliable in the run-up to the Asian financial crisis.

17. The report to the leaders by the finance ministers, issued just a week after CP-1, did include the Basel Committee proposals on capital regulation among measures taken to improve the global financial architecture.

18. Comments submitted in response to later consultative papers were posted on the Bank for International Settlements website.

19. See John D. Hawke, remarks to the International Monetary Conference, Philadelphia, June 8, 1999.

20. The use of the term "external credit assessment institutions" indicated that the eligible group was not limited to the familiar rating agencies such as Moody's. As later became clear, it also included government export credit agencies. While this feature of the proposal might help sovereign borrowers, the principal objective of a government export credit agency rating, it would still leave virtually all smaller firms and most non-US larger firms without eligible ratings. Moreover, the larger the group of eligible credit assessment institutions, the greater the opportunity for "ratings shopping."

The basic critique was that the agencies had essentially followed market sentiment, rather than help to establish it. Before the crisis, ratings for Thailand and Korea were almost certainly too high. Yet once the crisis hit, the agencies rapidly and substantially downgraded them. In its report on international capital markets released in September 1999, the International Monetary Fund pointed out that, had the CP-1 proposal been in place in early 1997, banks would not have been required to hold any more capital against the risk of sovereign defaults in the countries afflicted by financial crisis later that year (IMF 1999, 225).

At the same time, financial officials from emerging-market countries joined some banks in complaining that the CP-1 changes would create an undue disincentive against lending to emerging markets. Of course, to some extent that was the (unstated) intention of the committee, insofar as lending to emerging markets prior to the onset of the financial crisis in 1997 was considered to have inadequately reflected the risks entailed. However, the virtual absence of rated banks and firms in many countries made the external ratings approach especially troubling for emerging markets. In the absence of a rating, there was no way for a bank in an emerging market to obtain a favorable risk weighting, no matter what its actual credit history and capacity.[21]

Arguably the most serious blow to the committee's proposal came from the rating agencies themselves. The three largest of the four recognized rating agencies expressed varying degrees of reservation with respect to the CP-1 plan, principally because of fears that the agencies' independence, and thus their credibility, might be compromised.[22] The Basel proposal created incentives for a certain degree of "ratings shopping" among the established agencies.

The committee's stated intention to develop a method for imposing a capital charge for operational risk also drew criticism from banks. Because CP-1 did not include a specific proposal, there was nothing more than the concept to criticize. But, in a preview of the dissent that would meet the operational risk proposal in the second consultative paper (CP-2), a number of banks commented that operational risk—while undeniably significant—was unlike credit or market risk in that it was not susceptible to quantification in any meaningful way.

Banks questioned other discrete features of the proposal. But their most elemental complaint was directed at the committee's failure to move more resolutely toward an IRB proposal. Bankers' criticism of the proposal to use external credit rating agencies was generally a prelude to advocacy

21. On the other hand, emerging-market sovereigns with investment-grade ratings, such as Chile, would benefit from the shift to reliance on external agency ratings.

22. See Rob Garver, "Top Ratings Agencies Unanimous in Basel Opposition," *American Banker*, April 4, 2000, 2.

of an IRB approach. The shortcomings of the former could be remedied by a shift to the latter. CP-1 added only one risk bucket, many borrowers were unrated and thus would still be arbitrarily assigned to a risk bucket, and the track record of ratings agencies was not encouraging. The banks argued that only through building regulatory capital requirements on their own assessments would those requirements reflect actual risk.

At a banking conference in October 1999, key officials in the Basel process were already sounding less committed to CP-1. Danielle Nouy, secretary general of the Basel Committee, emphasized that CP-1 was a "very open document" and promised that the committee's next draft would be "very different."[23] Other officials, including McDonough and Greenspan, emphasized the importance of a collaborative effort between supervisors and banks to develop the IRB approach. Greenspan explicitly invited banks to pay close attention to the work of the Basel Committee in order to "influence the eventual outcome of the deliberations."[24]

In fact, large banks had not waited for Greenspan's invitation. Following release of the Basel Committee's paper on credit risk modeling, the IIF had asked some of its member banks to evaluate that paper. In October 1999, the IIF Working Group on Capital Adequacy, which had released a 1998 report advocating the use of banks' internal risk management systems as the basis for capital regulation, issued a report suggesting that the Basel Committee paper was setting the bar too high for the use of credit models as a basis for capital regulation (Institute of International Finance 1999). The previous month the IIF had organized a group of 32 senior managers from some of the world's largest banks to work together to affect the Basel Committee's work.[25] The group, chaired by Jan Kalff of the Dutch bank ABN Amro, was clear in its view that capital regulation should be based on the risk management systems of banks. A similar group was formed under the auspices of the International Swaps and Derivatives Association.

This transnational organization of banking interests highlights the changes that had taken place in the Basel process since negotiation of the first accord in 1988. Recall that the Basel I process was initiated by the United States and the United Kingdom, which together sought adoption by the Basel Committee of the bilateral capital arrangement on which the two countries had agreed the previous year. The negotiation itself followed a familiar pattern: Countries exercised available sources of leverage to prod

23. See Barbara A. Rehm, "Regulators Support Bigger Role for Market in Curbing Banks," *American Banker*, October 7, 1999, 1.

24. See Alan Greenspan, "The Evolution of Bank Supervision," remarks to the American Bankers Association, Phoenix, October 11, 1999.

25. US banks represented in the group included Citigroup, Bank of America, Chase Manhattan, and Bank One.

other countries into agreement on the basic contours of their proposal; certain compromises for particularized national interests were made along the way; and the interests of banks were, to a greater or lesser extent, mediated through their own countries' supervisors on the Basel Committee.

The Basel II process, by contrast, began without any clear proposal from any country. Although officials of the Federal Reserve Board were the most committed to revamping Basel I, even they lacked a specific proposal at the outset. The committee thus began a collective effort to determine alternatives to the Basel I capital standards. The committee eventually issued a series of proposals on its own authority and solicited comments from banks in particular, but, more generally, from anyone who cared to take the time to respond. Thus emerged an international variant on the kind of notice and comment procedure for proposed regulations found in national legal systems.[26] Large internationally active banks, in turn, organized themselves to maximize their influence in pursuit of their shared interest in this international rule-making exercise.

The repeated calls for collaboration by Basel Committee officials would be answered as the IRB approach was developed. The consequence was a further transformation of the Basel process. As recently as the spring of 1999, shortly before the release of CP-1, reports that German banking authorities were leaking details of the draft to their banks had elicited criticism from other Basel Committee countries, which preferred to exclude banks from the discussions until a complete draft was ready for comment.[27] Now, however, banks were being invited into the process. Thus, the Basel II exercise had evolved into a collective effort by national supervisors and large banks to create an entirely new paradigm for capital regulation. Specific national interests did not disappear, of course. Divergent interests and preferences would emerge as the IRB approach took shape. But the nature of this new Basel process generated as many disagreements *within* committee countries as among those countries. In particular, smaller banks that would not likely qualify for either of the two IRB approaches feared they would be disadvantaged. Within the United States—with its peculiar allocation of federal banking supervisory authority to four different agencies—there was friction among national supervisors over the scope and nature of the Basel II exercise that has continued to the present.[28]

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26. The evolution and implications of this procedure are discussed in Barr and Miller (2006). As discussed in chapter 6, the Basel II process was in fact an unusual hybrid of this variation on domestic administrative legal procedure and an international trade negotiation.

27. See George Graham, "Fresh Drive to Reform Bank Capital Rules," *Financial Times*, May 14, 1999, 5.

28. Through the early stages of Basel II, the other federal financial institution supervisors were either less enthusiastic about or, in at least one case, downright resistant to the use of more elaborate quantitative tools in setting capital requirements.

Some of the implications of this novel approach to an international arrangement will be explored in succeeding chapters. Before discussing the results of that approach, however, it is worth addressing the incentives and motivations of the principal participants. Those of the large banks are reasonably clear. They aimed, of course, to convince the Basel Committee supervisors that an IRB approach to regulatory capital requirements was feasible. Their reason for favoring an IRB approach almost certainly rested on the expectation that their required capital levels would decline.[29] To be sure, banks would prefer that a regulatory IRB approach converge with their internal approach to risk measurement. But, as evidenced by the fact that large banks accepted the final revised framework, which imposes its own requirements and formulas, they are willing to accept a divergent approach so long as their capital requirements decline.[30]

The incentives and motivations of the Basel Committee members are more difficult to pinpoint. Certainly they wished to rectify the key flaws of Basel I, and some were convinced that using banks' own risk assessment systems was the only viable route to this end. Officials from the Federal Reserve, who as a group were the most committed to an IRB approach among all Basel Committee supervisors, apparently also believed that the Basel II process could be used to prod large banks to improve their internal risk systems. Despite the publicly stated enthusiasm of Chairman Greenspan for banks' credit risk modeling,[31] some Federal Reserve staff were concerned that very large banks did not actually have a good grasp of the risks entailed in many of the nonlending activities that had become such a large part of their overall business. While this circumstance was in part a result of the technical challenges in measuring risk, it was also grounded in the incentive structure created within large banks. The various bank divisions had little interest in promoting clear and well-developed risk profiles of their activities, since this might mean more constraints on the very activities that—at least in the short term—were most likely to yield the highest profits. Just weeks after the CP-1 release, the Federal Reserve issued a supervisory letter that directed its examiners to evaluate the internal capital-management processes to judge their adequacy in determining financial institutions' capital needs (Board of Governors of the Federal Reserve System, Division of Banking

29. Large non-US banks had the additional incentive that many of their corporate customers did not have external credit ratings.

30. Chapter 5 will attempt to explain why banks have sought reductions in their regulatory capital requirements even as they maintained capital levels well above existing requirements.

31. As early as 1996, Greenspan praised the internal credit risk models being used by some banks and looked forward to their widespread adoption. See Alan Greenspan, "Banking in the Global Marketplace," remarks at the Federation of Bankers Association of Japan, Tokyo, November 18, 1996.

Supervision and Regulation 1999). The letter followed a review by Federal Reserve staff that concluded there was significant room for improvement in these processes.

Some Federal Reserve officials suggested at the time, as they have since, that the most effective way to incentivize banks to make the desired improvements was to tie the banks' internal processes to regulatory capital requirements. Additionally, they believed that the only way to focus adequate supervisory and bank attention on the challenges of achieving a viable IRB approach to capital regulation was simply to move forward, regardless of how many technical and policy questions were unanswered. Only if banks believed that the end point of an IRB capital requirement would be reached would they invest the resources necessary to refine their IRB methods. And only through this commitment would the considerable difficulties be better understood and overcome. Finally, only through such a process would the risk management officials of the banks obtain both the resources and the internal stature to engage in the informed and sophisticated risk management desired by the supervisors. From this perspective, close involvement of the banks in development of the IRB methodology was not only inevitable as a means to an end; it was a goal in itself.

It is unclear whether the supervisors as a group—or at least those who led the Basel II process—intended a significant reduction in capital for banks that adopted an IRB approach. The committee had stated its intention in CP-1 that "the new framework should at least maintain the overall level of capital currently in the banking system (Basel Committee 1999b, paragraph 10). Once it had committed itself to an IRB approach, the Basel Committee clearly intended *some* decline for banks qualifying for that approach. In CP-2, described in the next section, the committee explicitly stated its goal for IRB capital requirements as "covering the underlying risk at a reasonable level of confidence and providing a modest incentive to adopt more sophisticated risk management systems" (Basel Committee 2001a, paragraph 53). It suggested a decline of 2 or 3 percent in capital requirements, an amount presumably considered a sufficient incentive (Basel Committee 2001a, paragraph 48).

The committee's changes in, or omission of, this stated goal in subsequent releases combine with persistent but undocumented reports of an understanding between certain Federal Reserve officials and large US banks to raise the question of whether supervisors intended larger reductions in capital requirements to result from application of an IRB approach.[32] Some participants in the Basel II process have suggested as

32. The suggestions by Governor Susan Bies that the leverage ratio requirement for US banks should be removed following full implementation of Basel II can be read as sympathetic to significant capital reductions for A-IRB banks, insofar as the leverage ratio only begins to place a floor under regulatory capital if there are significant reductions from current risk-weighted capital levels. See Michele Heller and Todd Davenport, "Congressional Pressure for Consensus

much, mentioning numbers as high as 20 percent. That figure may have its origins in the committee's suggestion in CP-2 that capital charges for operational risk should be approximately 20 percent of credit risk capital charges. Since the committee had already indicated that aggregate capital was to remain about the same, one might fairly have concluded that credit risk capital charges would decline by approximately the same amount as the operational risk charges that would be imposed.[33] Later, when the Basel Committee significantly lowered the intended level of capital charges for operational risk, some banks apparently continued to expect substantially reduced credit risk capital requirements.

It may also be that the intentions of Fed officials changed over time. Officials may have underestimated the potential resistance of banks, and, in order to complete the Basel II process, they may have acquiesced in significantly lower capital requirements. Another possibility, not inconsistent with the first, is that the change in the composition of the Board of Governors during the Basel II process may have brought into positions of authority individuals considerably more disposed to permit banks to hold lower levels of capital. The issue of overall capital levels, obviously central to the entire Basel II exercise, remained contested—both in the technical sense of predicting what the advanced internal ratings–based (A-IRB) methodology will yield and in the normative sense of whether required capital levels should be generally and significantly lower.

In any case, by the end of 1999 it was already obvious that many large and even some not-so-large banks were intent on having an IRB foundation for their regulatory capital requirements. The US members of the Basel Committee, particularly the Federal Reserve, were advocating more strongly than ever a far-reaching shift to an IRB approach. While some European members, particularly German supervisors, had misgivings, the Basel Committee agreed at a meeting in early 2000 to forge ahead with such an approach. In June 2000, with the committee well on its way to developing its first IRB proposal, McDonough stated publicly that "we are more committed than ever to an internal ratings–based approach" and that the committee could "now envision extending the applicability

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on Basel II," *American Banker*, March 15, 2005, 4. Banks might also have seen such signals even where they were not intended. For example, in a March 2001 speech, Federal Reserve Board Governor Laurence Meyer suggested that "many institutions may desire to migrate directly to the advanced approach so as to achieve the largest possible reductions in regulatory capital." Although Meyer made this prediction in the context of emphasizing the high threshold standards that would be applied to banks wishing to elect the advanced IRB approach, banks may have drawn the inference that substantial capital reductions were likely for advanced IRB banks. See Laurence Meyer, remarks at the Annual Washington Conference of the Institute of International Bankers, Washington, March 5, 2001.

33. One contemporary account mentions this logic and the hope of banks for its realization. See "Capital Cushion Fight," *The Economist*, June 9, 2001.

of the internal ratings method approach to banks of varying sizes, including small and medium-sized institutions."[34]

Little had changed in the state of the art of quantitative risk assessment in the months since June 1999. What, then, *had* changed? First, widespread criticism of the external ratings approach revealed it to be an uncertain route to any of the various goals of the Basel II process. Second, Federal Reserve officials—particularly members of the Board of Governors—had become more assertive in championing the IRB approach. Third, the large international banks with potentially the most to gain from a change of regulatory paradigm to an IRB approach had organized themselves both at national and international levels in an effort to influence the final Basel II rules.

Shift to an Internal Ratings–Based Approach

In January 2001, the Basel Committee issued CP-2, which set forth the promised IRB approach (Basel Committee 2001a, 2001b). In fact, it set forth *two* IRB methodologies, reflecting the committee's new view that small and medium-sized institutions should have the option, if they were willing and able to invest the necessary resources, to elect such an approach. The committee indicated that it would "finalize" the new accord by the end of 2001, for implementation by 2004. As it turned out, the release of CP-2 was only the first step down what has been an arduous path to the committee's goal of implementing an IRB regulatory paradigm in its member countries.

CP-2 changed the nature of the Basel II exercise. In place of the approximately 60-page CP-1 and the 30-page Basel I was a package of over 450 pages, including the proposal itself and seven supporting documents. The proposal was not just long and detailed but technically complex, characteristics that have carried over into the final version of Basel II. Despite its length and complexity, however, CP-2 was fundamentally incomplete. Several key issues were left for later elaboration.[35] Furthermore, the committee acknowledged that it was uncertain about the proper calibration of the IRB risk-weighting formulas. Accordingly, it did "not have enough information at the moment to assess the full impact of the proposal" (Basel Committee 2001a, paragraph 52). As would later become clear during a series of quantitative impact studies (QIS), the committee

34. See William McDonough, "Update on the Major Initiative to Revise the 1998 Capital Accord," remarks to the 4th Annual Supervision Conference of the British Bankers Association, June 19, 2000.

35. Indeed, the committee characterized its approach as "evolutionary," anticipating revisions of its rules as risk management techniques developed further. Thus, even with respect to matters it did address in CP-2, the committee raised the prospect of regular changes.

has never really solved the problem of predicting the impact of its proposals on required capital levels.

Thus, despite its length, CP-2 was less a fully articulated plan resembling a proposed regulation in US administrative law practice than, in the committee's words, "a starting point for additional dialogue" (Basel Committee 2001a, 53). While the committee used this language to refer only to the issue of calibrating the risk weights, it may as well have referred to the entire proposal. The gaps in CP-2 and numerous elements of the proposal that *were* included elicited another round of strong criticism—principally from banks but also from consultants and commentators. These complaints led to abrupt shifts of position by the committee on some fairly basic issues and a series of delays in completing the revised framework.

The delays and extensive revisions not only called into question the wisdom of the committee's approach but also gave each bank or group of banks in the member countries ample time to organize in pursuit of changes in the proposal that would be to their liking. The result was a series of ad hoc accommodations by the committee to a wide variety of demands for change. By releasing CP-1 and CP-2—two fundamentally incomplete proposals—the Basel Committee ensured that it would spend much of the Basel II process reacting to criticism and on the defensive. In a sense, the committee became captive to its own process, forging indomitably ahead in order to avoid the failure of an abandoned project but needing constantly to placate the banks' opposition if it was to make progress.

Although a proposal as detailed as CP-2 defies easy summary, its key elements are set forth in box 4.2. Notwithstanding the extensive disparagement of the CP-1 proposal, the basics of the "standardized" approach to capital requirements remained the same, though several modifications were made, most for the stated end of increasing risk sensitivity. Among the more important were the addition of a fourth 50 percent risk bucket for corporate exposures, a preferential risk weight for short-term exposures to other banks denominated in the local currency, and the possibility that a bank or corporation could have a lower risk weighting than the sovereign in its country of incorporation. In response to the criticism that lending to developing country sovereigns would be seriously affected by the absence of external credit ratings for most such countries, the committee specified that export credit agencies were a permissible source of credit scores for sovereign exposures.

The committee's key innovations in CP-2 were the IRB proposals, which envisioned two distinct approaches. Creation of the "foundational" internal ratings–based (F-IRB) approach responded to the wider-than-expected demand among banks in member countries for participation in an IRB approach. The A-IRB approach was assumed to be applicable only to a relative handful of big banks. Thus was established the second key structural feature of Basel II. The first was the three-pillar approach

Box 4.2 Changes proposed in the second consultative paper

Pillar 1: Minimum Capital Requirements

Standardized Approach

- addition of export credit agencies as source of ratings for sovereign risk
- adjustments to risk weight proposed in the first consultative paper (CP-1) (e.g., exposure to a bank may be rated as less risky than that bank's sovereign)
- wider range of collateral acceptable for credit risk mitigation

Internal Ratings–Based (IRB) Approach

- creation of two IRB approaches
- foundational approach uses banks' estimates of probability of default and supervisory parameters for exposure in the event of default, loss if default occurred, and maturity of the exposure in calculation of risk weights for each sovereign, bank, and corporate exposure
- advanced approach permits use of bank estimates of probability of default, exposure in the event of default, loss if default occurred, and maturity of the exposure
- capital requirements determined through supervisory formulas into which probability of default, exposure in the event of default, loss if default occurred, and maturity of the exposure are inputs
- separate treatment of retail exposures based on risk associated with distinct segments of retail lending

Asset Securitization

- both standardized and IRB approaches
- clarification of "clean break" requirement
- differentiated capital requirements for originating, investing, and sponsoring banks

Operational Risk

- basic indicator approach to calculate requirement using percentage of a single indicator (e.g., gross income)
- standardized approach to use different indicators and percentages for different business lines

(box continues on next page)

Box 4.2 Changes proposed in the second consultative paper *(continued)*

- internal measurement approach to use combination of internally-developed data and supervisory factors

Pillar 2: Supervisory Review of Capital Adequacy

- elaboration of four principles from CP-1
- interest rate risk to be evaluated as part of supervisory review rather than subject to capital charge calculation

Pillar 3: Market Discipline

- elaboration of required disclosures for:
  - scope of application;
  - composition of capital;
  - risk exposure assessment and management processes; and
  - capital adequacy.
- distinctions between "core" and "supplementary" disclosures
- expectation of supervisory response to inadequate bank disclosures

Source: Basel Committee (2001b).

adopted in CP-1. Now CP-2 had introduced three separate methodologies for banks of varying risk management capabilities. This feature applied not just to the calculation of risk weights but also to other key elements of pillar 1.

The essence of the IRB approaches was that qualifying banks could use their own estimates of the probability of default of each of its exposures. Under the A-IRB approach, banks would also be able to use their own estimates of their exposure in the event of default, loss if default occurred, and maturity of the exposure. These values would be converted into risk weights through formulas devised by the supervisors. Separate formulas were provided for corporate, sovereign, and bank exposures. A somewhat different framework would apply to retail exposures.[36] The committee indicated that separate frameworks were also necessary for project finance and equity exposures but that it had not yet developed them.

36. Since banks do not customarily assign ratings to individual retail exposures, the committee chose to follow bank practice in allowing the grouping of exposures into categories, or "segments," based on similar risk characteristics.

To be eligible for an IRB approach, a bank would have to meet minimum requirements relating to its internal rating, credit assessment, and disclosure practices. To qualify for the A-IRB approach, a bank would have to meet additional requirements applicable to the calculation of exposure in the event of default, loss if default occurred, and maturity of the exposure. In proposing reduced capital requirements for credit risk mitigation techniques such as collateral and credit derivatives, the committee also set forth different methods, with the A-IRB approach again allowing the greatest use of internal assessments.

The committee provided special rules for calculating capital requirements for securitization exposures. Reflecting the concern that securitization was a form of regulatory arbitrage under Basel I, CP-2 mandated the deduction from capital of retained first-loss positions and similar credit enhancements. The capital required for other securitized holdings depended on whether the bank had originated the securities or was an investor in securitized assets of another issuer. Here again, the committee contemplated standardized, F-IRB, and A-IRB approaches. However, its securitization proposals for the IRB approaches were explicitly tentative and not fully developed.

While the committee had acquiesced to much of the criticism of CP-1, it held fast to its objective of introducing a capital charge for operational risk. Once again, though, CP-2 was more suggestive than fully elaborated. The committee proposed to parallel its three approaches to credit risk capital requirements with three approaches to operational risk. The *basic indicator approach* would link the charge to a "single indicator that serves as a proxy for the bank's overall risk exposure" (Basel Committee 2001a, paragraph 163). The committee suggested, but did not specify clearly, that gross income would be the relevant indicator. The *standardized approach* would also base the charge on an indicator that proxied for risk exposure, but here both the indicator and the percentage taken would vary by business line (e.g., corporate finance, retail banking). Finally, the *internal measurement approach* would permit a bank to use its own inputs to quantify the risk of operational losses in each of its business lines; the output would then be adjusted by a factor designated by the committee to yield the operational risk charge.

Notwithstanding the continued insistence of the committee that all three pillars were to be important regulatory tools, the disproportionate emphasis on pillar 1 had, if anything, increased in CP-2. The supervisory review process of pillar 2 was elaborated modestly from the CP-1 baseline through the articulation of four supervisory principles (box 4.3). The committee also issued guidelines for supervisory review of the minimum standards for IRB eligibility, supervisory transparency and accountability, and the review of interest rate risk. The last of these represented another accommodation by the Basel Committee to criticism from banks, which had argued in reaction to CP-1 that the variety of their methods for

Box 4.3 Key principles of supervisory review in the second consultative paper

Principle 1: Banks should have a process for assessing their overall capital in relation to their risk profile and a strategy for maintaining their capital levels.

Principle 2: Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the results of this process.

Principle 3: Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

Principle 4: Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

Source: Basel Committee (2001b).

managing interest rate risk made it inappropriate for pillar 1 coverage. The implications of some of these guidelines were potentially far-reaching. For example, the CP-1 idea that banks should generally hold capital above the minimum required level was repeated. Another principle, seemingly echoing the US system of prompt corrective action, suggested that supervisors should intervene "at an early stage" to prevent capital from falling below regulatory minimum levels. Yet all of these guidelines seemed hortatory in nature and were generally addressed to supervisors, rather than banks.

The pillar 3 proposals in CP-2, on the other hand, built on an earlier committee paper to present a fairly detailed list of items to be disclosed by banks. The committee specified disclosures that it believed would facilitate the exercise of market discipline on risk-taking by banks. These requirements, divided into core and supplementary disclosures, were grouped into 10 topical areas (box 4.4). Substantially greater disclosure was recommended for qualifying banks that elected an IRB approach. Despite the detail it provided, the committee's expectations for implementation of pillar 3 were somewhat ambiguous. In particular, it noted that the legal authority of supervisors to require public disclosures by banks varied among member countries. Thus, although "some kind of enforcement response" was expected, that response might be indirect in some cases.

Box 4.4 Areas for public disclosure by banks in the second consultative paper

- Scope of application of capital accord within a banking group.
- Breakdown of bank's capital and supporting accounting procedures.
- Breakdown of credit risk exposures and description of credit risk management techniques.
- Identification and use of external credit assessment institutions (for banks using standardized approach).
- Internal ratings–based (IRB) methodology, coverage, and ex post performance of IRB methods, broken down for each portfolio (for banks using an IRB approach).
- Exposures covered by credit risk mitigation measures, process for managing collateral, and methods for assuring continued creditworthiness of guarantors and credit derivative counterparties.
- Methodology for calculating market risk capital requirements and, for banks using internal models approach, information about model, value-at-risk data, and backtesting.
- Operational risk methodology and exposure(s).
- Interest rate risk management technique and impact on earning and regulatory capital of rate shocks.
- Regulatory capital requirements for credit (including off-balance-sheet exposures), market, and operational risk; analysis of factors affecting capital adequacy; economic capital allocated to bank's transactions, products, customers, business lines, or organizational units, as appropriate.

Source: Pillar 3 (Market Discipline), supporting document appended to Basel Committee (2001b).

The committee asked for comments on CP-2 by May 31, 2001. More than 250 comments were received in this four-month period.[37] Even before that date, interested parties had spoken publicly, and privately to Basel Committee members, of their concerns. Many of the comments came from banks and associations representing banks or risk management officers, but comments were also received from other financial institutions, central banks and banking regulators around the world, international

37. Comments to CP-2 and CP-3 were all uploaded onto the Basel Committee website. Comments on CP-2 may be found at www.bis.org/bcbs/cacomments.htm (accessed May 15, 2008).

institutions, academics, think tanks, and credit rating agencies.[38] While it is obviously impossible to distill thousands of pages of comments into a fully representative synopsis of a few paragraphs, the most frequently recurring themes can be summarized as follows.

First, commenters speaking directly or indirectly on behalf of banks generally applauded the committee's embrace of IRB capital regulation, though quite a few continued to advocate faster movement toward the full use of internal models. Second, many academic or quasi-academic commenters expressed skepticism about the feasibility of the IRB approach to capital regulation, though the degree of skepticism varied considerably within this group. Third, while banks and others offered suggestions on a wide range of technical issues, a few provisions elicited criticism from a particularly high proportion of commenters. Among these were the proposal for a formulaic approach to a quantified capital charge for operational risk and the proposal to require credit risk capital charges for expected, as well as unexpected, losses.[39] Fourth, some commenters took issue with the risk-weighting formulas under the IRB approaches (and, in some cases, the standardized approach). Most frequently mentioned were the effects on firms in emerging markets and on small and medium-sized enterprises in the Basel Committee countries themselves. The committee's use of a "scaling factor" that multiplied by a factor of about 1.5 the probability of default value generated by the bank's internal system was also criticized. Fifth, many commenters noted that the CP-2 proposals were incomplete in important respects and thus they could not judge the committee's proposals as a whole. Sixth, many banks complained that the menu of disclosures proposed under pillar 3 would require banks to reveal much proprietary information and, in any case, would be needlessly expensive for the likely value to investors.

Seventh, and ultimately most important, many banks complained that regulatory capital would rise under the CP-2 proposals. The banks' conclusion, based on some quick number crunching, was borne out by the committee's second quantitative impact study (QIS). QIS-2 had been initiated in April 2001, a few months after release of the CP-2. The results, reported in November of that year (Basel Committee 2001c), revealed that regulatory capital levels would increase under each of the three CP-2 ap-

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38. The very fact that certain entities submitted comments raised interesting questions. For example, the Federal Reserve Banks of Chicago and Richmond both sent letters to the Basel Committee, giving rise to the inference that the Board of Governors and the New York Fed had not fully involved the rest of the Federal Reserve System in developing their Basel Committee positions.

39. This proposal was particularly unwelcome to banks in the United States and other countries where the practice is to set aside reserves for expected losses. The banks argued that the CP-2 proposal would, in effect, require them to provision for expected losses twice—once in their reserves and once in their capital requirements.

Table 4.2 Results of second quantitative impact study change in capital requirements under second consultative paper proposals (percent)

	Standardized		Foundation IRB		Advanced IRB	
Group	**Credit**	**Overall**	**Credit**	**Overall**	**Credit**	**Overall**
G-10						
Group 1	6	18	14	24	−5	5
Group 2	1	13				
European Union						
Group 1	6	18	10	20	−1	9
Group 2	−1	11				
Other (non-G-10, non-EU)	5	17				

IRB = internal ratings–based

Notes: The second quantitative impact study (QIS-2) exercise involved 138 banks from 25 countries. Group 1 banks were diversified, internationally active banks. Group 2 banks were smaller or more specialized banks. Banks from Basel Committee member countries that were also European Union (EU) members were included in both the G-10 and EU categories in the reported results.

Source: Basel Committee (2001c).

proaches (see table 4.2 for a summary of the results).[40] For the A-IRB approach, the capital charge for credit risk alone would decline modestly, but the proposed new requirement for operational risk would result in increased overall regulatory capital. The overall percentage increases for the standardized approach were in the mid-teens. Most embarrassing for the Basel Committee, the overall percentage increases for the foundational IRB approach were even higher. Thus, under the CP-2 proposal, banks would have no incentive to shift from a standardized to the F-IRB approach.

As noted earlier, the committee's stated intentions were to maintain average regulatory capital levels unchanged from Basel I under the new standardized approach and to bring about a modest reduction from Basel I levels for banks adopting one of the IRB approaches. However, in light of the implications of the CP-2 methodologies for minimum capital levels, the committee now had a credibility problem. It did not seem to understand the effects of its own proposals. Far from being the "dream" for banks that Bill McDonough had promised, some banking executives, in the words of one, saw "themselves being railroaded into the new approach at a lot of cost."[41]

40. By the time the Basel Committee released the QIS-2 results, it had already decided to reduce the operational risk charge significantly. Thus, when the banks initially ran their numbers after release of the CP-2 proposals, they would have observed a substantially greater increase in capital requirements.

41. See John Willman, "Industry Backs Postponing New Rules on Amount of Capital Banks Must Hold," *Financial Times,* June 25, 2001.

The complaints about regulatory capital levels were in one sense a combined recapitulation of many of the banks' other complaints. The operational risk charges, inclusion of expected losses in the capital requirements, and specifics of the risk-weighting formulas all contributed to the required capital level. Similarly, a number of banks had objected to what they saw as arbitrary limitations on the degree to which credit risk could be mitigated, either directly through such devices as collateral or indirectly through portfolio diversification. In another sense, though, the banks' objection to the capital levels required by the CP-2 proposals was their *only* complaint. An increase in regulatory capital would, at least presumptively, entail foregone profits from the additional increment that could otherwise have been lent out. Hence any feature of CP-2 that boosted capital requirements was unwelcome. On the other hand, the banks were quite rationally prepared to accept regulatory features that they found arbitrary, costly, or even ill-conceived, so long as their capital requirements declined enough to make the changes on net profitable.

Process of Continuous Revision

The reception of CP-2 by bankers and other industry observers was no more positive than that accorded CP-1 a year-and-a-half earlier. Within a few months of the January 2001 release, the Basel Committee faced an unenviable situation. Its proposals, already lengthy and complex, were admittedly incomplete. Numerous technical features of the proposals were widely questioned. The impact of the proposals on minimum capital requirements appeared to be the opposite of what the committee had intended. Although US regulators had been the prime movers of a wholesale revision of the capital accord, they were internally divided. Soon there would be questions raised by elected officials in both Europe and the United States on the competitive implications for banks.

In May, influential groups of banks requested a delay in the revision of CP-2 in order to provide adequate time for the industry to react to the still inchoate proposals. In light of all these difficulties, it was unsurprising that the Basel Committee soon acknowledged that it could not keep the timetable announced in the CP-2. On June 25, the committee issued a press release announcing a delay of the final accord until 2002 and indicating a number of areas in which it intended to make changes in response to criticisms of the CP-2. This would not be the last delay. The next version of the committee's proposals would not be issued until April 2003 and, even then, would become known as the third consultative paper (CP-3) rather than the "final" version promised by the committee, which would not be issued until June 2004.

Delays and missed deadlines are common in international negotiations. Yet the three-and-a-half years between the issuance of CP-2 and release of the final revised framework were not characterized by the long periods of inactivity that usually attend such delays. Nor did the committee retreat from public view to work on its proposals in splendid isolation. On the contrary, it was now engaged in more or less constant negotiations, frequent revisions of its proposals, and nearly continuous dialogue with the banking industry. Between the June 2001 announcement and the release of CP-3, the committee issued no fewer than 10 substantive proposals on specific elements of the IRB approach (summarized in box 4.5). In truth, the committee's process appeared driven by its efforts to respond to the nearly constant barrage of objections to its proposals, including its failure to have adequately elaborated certain elements of the CP-2 package.

In many instances, it is not easy to determine if the committee's modifications in response to the many objections from banks reflected an enhanced technical understanding of matters not fully grasped in CP-2, on the one hand, or a tactical accommodation in the face of broad-based opposition, on the other (or some of both). For example, US banks with significant credit card operations had complained about the CP-2 proposals. In July 2002, the committee announced a series of changes in the treatment of retail exposures. The risk-weight curve for qualifying revolving exposures was changed in such a way as to "produce capital requirements materially below those previously proposed by the committee."[42] Risk weightings for other retail exposures and for residential mortgages were reduced. The former change was justified as an "effort to achieve greater risk sensitivity," the latter as "an effort to maintain consistency with likely changes in capital requirements under the retail IRB framework."

Whatever the motivations for any specific change, the cumulative effect of so many alterations was helpful neither to the committee's credibility nor to the coherence of its proposals. Whether the committee had such limited knowledge of risk-weighting procedures that it needed to be educated by the banks at every step, or it understood those procedures but was acquiescing to the demands placed before it, the pattern of regular and extensive changes could hardly produce confidence. Committee members seemed aware of the effects of their activities but were apparently unable to change course.[43]

The period between CP-2 and CP-3 also saw an increase in pressures on Basel Committee members from elected officials. The highest profile

42. See Bank for International Settlements, "Basel Committee Reaches Agreement on New Capital Accord Issues," press release, July 10, 2002.

43. In February 2002, two members of the Basel Committee were quoted, albeit anonymously, precisely to this effect. One observed that "[a]s soon as you develop an approach, it's not too long before you hear from the banks complaining about something. So you adjust—at the cost of a more complex calculation for everybody." Another was quoted as characterizing Basel II as the "great monster." See "The Good Tailors of Basel," *The Economist,* February 21, 2002.

Box 4.5 Proposals issued between the second and third consultative papers

Date	Proposal
July 2001	Modification of treatment of expected and unexpected losses.
August 2001	Proposal on internal ratings–based (IRB) treatment of equity exposures.
September 2001	Changes in credit risk mitigation techniques (including moving the “w” floor to pillar 2 and allowing netting among counterparties in repo-style transactions).
	Reduction in number of disclosures required under pillar 3 (market discipline).
	Changes and elaborations in operational risk proposal (including reduction in percentage of minimum capital to be required as operational risk charge, elaboration of an advanced management approach using banks’ internal systems).
October 2001	Proposal on IRB treatment of securitizations.
	Proposal on IRB approach to specialized lending exposures.
July 2002	Major changes in previously announced proposals (including creation of new risk-weight curve for credit card exposures, more favorable risk weightings for exposures to small and medium-sized enterprises, elimination of floor capital requirement under an advanced management approach to operational risk, changes in floor capital requirements).
October 2002	Second set of proposals on treatment of asset securitizations.
February 2003	Guidelines for bank management of operational risk.

Source: Basel Committee.

example was Chancellor Gerhard Schröder’s warning in the fall of 2001 that Germany would veto any European capital adequacy directive based on the CP-2 proposal. Behind this threat lay the familiar German concern with the risk weighting of exposures to small and medium-sized business.

Coincidentally (or, perhaps, not so coincidentally), the committee soon thereafter released the results of QIS-2, on the basis of which it began mooting ideas for a number of changes to CP-2, including the risk weightings for small and medium-sized business lending (Basel Committee 2001d). In July 2002, the committee announced modifications to its proposal that would reduce the risk weighting of such exposures.[44]

As the Basel process dragged on, legislators began to pay more attention and, inevitably, become more involved. Some German members of the European Parliament echoed Chancellor Schröder's concerns about the impact on small and medium-sized business. Several influential members of the US Congress communicated to US regulators their unease over various aspects of CP-2. Senator Richard Shelby (R-AL), chairman of the Senate Banking Committee, worried about the competitive effect on smaller banks that would not use an IRB approach, a concern that would later be echoed by his counterpart, Representative Michael Oxley (R-OH), chairman of the House Financial Services Committee.

Representative Oxley, along with members of his committee from both parties, also expressed concern about the proposals on operational risk and, more generally, the potential for competitive disadvantages for US banks. The former item arose from complaints by State Street Bank & Trust and Mellon Bank, which have very sizable processing, custodial, or investment management businesses relative to their conventional commercial banking operations. These banks stood to incur the significant new capital charges for operational risk while deriving little or no benefit from the reduced capital requirements for credit risk contemplated under Basel II.[45]

The committee released CP-3 (Basel Committee 2003a) in April 2003 and, less than a week later, the results of its third quantitative impact study, QIS-3 (Basel Committee 2003b, 2003c). Both documents incorporated major changes—previously announced by the committee—on retail exposures, small business lending, operational risk, credit risk mitigation, and asset securitization. Similarly, CP-3 included a number of technical, though in some cases significant, modifications to the pillar 1 rules that had first been set forth in the committee's October 2002 instructions to banks for completing the QIS-3 survey (Basel Committee 2002b). Thus, to a considerable extent, the results of QIS-3 were a test run of the CP-3 rules, even though the study had been conducted prior to the release of CP-3 itself.

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44. Ibid., footnote 42.

45. See Steven G. Elliott, letter on behalf of Mellon Financial Corporation to Basel Committee on Banking Supervision, May 29, 2001; and David A. Spina, chairman and chief executive officer, Street Corporation, testimony before the US House of Representatives Financial Service Committee Subcommittee on Domestic Monetary Policy, Technology and Economic Growth, February 27, 2003.

These results suggested that the tide had turned in favor of banks that would adopt the A-IRB approach. Overall capital requirements were projected to be only about 2 percent lower for A-IRB banks. However, credit risk capital requirements were down about 14 percent; the net reduction of only 2 percent resulted from the capital charges for operational risk. Insofar as there was continuing pressure on the committee to provide A-IRB banks with more flexibility on operational risk, these banks could reasonably have expected even more favorable results as further changes were made. Moreover, in releasing the results, the committee indicated that its biggest area of uncertainty was credit risk mitigation, where many banks' data systems had not been able to produce good information on all the collateral that would have qualified to reduce capital requirements. Thus, in the committee's view, the QIS-3 results probably overstated capital requirements (Basel Committee 2003b).[46] In addition, some banking industry analysts thought that the different mix of assets in large US banks, compared with European and Japanese banks, would yield overall capital reductions of 10 to 15 percent.[47]

In the immediate aftermath of the CP-3 release, prospects for Basel II looked no better than previously. They may even have looked a bit worse. The comments on CP-3 filed with the committee were numerous, lengthy, and in many cases quite critical. Some recapitulated common complaints lodged after CP-2—the requirement for capital to be held against expected losses for which provisions had been taken, the reluctance of the committee to lower capital requirements for well-diversified portfolios, the specifics of the formulas for some types of exposures, and the cost of the entire undertaking for prospective A-IRB banks. But there were some new emphases as well.

The IIF, echoed by a number of other banking associations, identified the procyclicality of the proposals as a fundamental defect (Institute of International Finance 2003). As the IIF itself noted, all risk-weighted capital requirements are inherently procyclical, in that they require more capital to be held—and thus dampen new lending—as the credit circumstances of borrowers decline. This issue is discussed in detail in chapter 5. For present purposes, it suffices to note that this new emphasis by the banking groups was an adroit reformulation of earlier arguments, since they charged that the failure of the Basel Committee to incorporate in its formulas the mitigating effects of portfolio diversification exacerbated the procyclical character of the committee's proposals. The potential drag of procyclical banking regulation on expansionary monetary policy during a recession was of

46. Some representatives of the banking industry questioned whether more complete knowledge of bank collateral positions would ultimately reduce capital requirements (Institute of International Finance 2003).

47. See Rob Garver, "Basel Rules Seen Lowering Requirements Up to 15%," *American Banker*, May 6, 2003, 4.

obvious concern to central bankers on the committee, who were both banking supervisors and guardians of macroeconomic policy.

Beyond continued complaints from banks, the Basel process seemed in mid-2003 to be suffering from internal dissension as well. To some extent, disagreement arose from the different domestic circumstances of the European and US regulators. As they negotiated the international arrangement, European members of the Basel Committee were looking ahead to a revised European Union (EU) capital adequacy directive (CAD). Issues that were addressed in the Basel deliberations would, at least presumptively, not be reopened when the new CAD was drafted for approval by the council and the European Parliament. In addition, continental bank regulatory systems had traditionally relied less on the ad hoc supervisory interaction between banks and regulators characteristic of the US and UK systems and more on outside auditors to assess bank compliance with capital regulations. Thus, regulators from the continental European countries had a dual incentive to seek more, rather than less, detail in the Basel arrangement.

For their part, US regulators were feeling considerable pressure from banks and, increasingly, from members of Congress on such issues as capital requirements for expected losses, operational risk, and the proposed capital requirement for the unused portions of credit limits for credit cards. The business profiles of influential US banks and, in the case of expected losses, US practices of provisioning meant that these were important constituency issues for US regulators.[48] European regulators were also unhappy with US regulators for announcing in February 2003 their unilateral

48. Under the definition of capital created by Basel I, banks are permitted to count loan-loss reserves of up to 1.25 percent of risk-weighted assets as tier 2 capital. However, in order to qualify for tier 2 treatment, these reserves must not have been set against any particular exposures identified as impaired. Instead, they must have been "generally" provisioned—that is, set aside on the basis of past experience that losses of a certain magnitude could be expected in the bank's current portfolio (Basel Committee 1988, 16). Under CP-2, capital requirements would apply to an identifiable expected, as well as unexpected, loss from a particular exposure, even where the bank had set aside reserves to cover that expected loss. CP-2 indicated that the definition of capital would remain as under Basel I. Since provisioning for identified losses was not eligible for tier 2 capital treatment, banks that engaged in such provisioning would get no capital benefit. Unlike Basel I, however, where the capital charge for a loan was based solely on the category of borrower, under the IRB approaches of CP-2 the bank's capital charge against an impaired loan would increase, because the probability of default and/or loss given default would be increasing. Hence, in the view of many US banks (and Comptroller Hawke), CP-2 essentially required a double charge for the same expected loss. The Basel Committee was aware of this issue. However, it noted that, in many countries, provisioning was essentially limited to general provisioning, which was taken into account in the calculation of tier 2 capital. Hence it proposed calculating capital charges on the basis of expected as well as unexpected losses, with some complicated offsets for provisioning, particularly specific provisioning. The problem was that the United States was not like most countries, since regulatory and accounting practice required banks to provision for identifiable expected losses.

decision that the new Basel rules would apply only to the very largest US banks,[49] a decision that was also influenced heavily by domestic politics.[50]

To make matters more complicated, it appeared that US regulators themselves were far from united on the new proposals. Only two days after CP-2 was issued, a senior official of the Office of the Comptroller of the Currency had questioned publicly whether the degree of complexity contained in the proposal would be acceptable to banks or excessively burdensome for bank examiners. This was only the first of what would become periodic expressions of skepticism from the comptroller's office, including the comptroller himself.[51] Over time, it became clear that FDIC officials were also concerned about the direction in which the Basel Committee proposals were headed, particularly in their effects on required

49. While the Europeans were understandably disappointed, they should not have been completely surprised. In late 2000, before CP-2 had been formally issued but well after its direction had become clear to Basel Committee members, the US bank regulatory agencies issued an advance notice of proposed rule making in which they referred to the possibility of the new Basel agreement adopting an IRB approach and solicited views as to options for capital rules applicable to "noncomplex" institutions (US Department of Treasury et al. 2000).

50. The shifting policy of the US banking agencies with respect to the capital rules that would be applicable to the roughly 8500 non A-IRB financial institutions is one of the stronger pieces of evidence for the proposition that the agencies had not fully thought through their goals and strategy before embarking on Basel II. The 2003 announcements was apparently motivated by the conclusion that the expense of shifting from Basel I as modified by US practice to the standardized approach of Basel II was not worth the anticipated safety and soundness benefits. However, as it became clear that the regulatory capital requirements of the A-IRB banks would decline significantly, representatives of all the other banks complained that they would be unfairly disadvantaged in those business lines such as residential mortgages where there was competition between the largest banks and regional, or even community, banks. The regulators responded by proposing a "Basel IA" that would, among other things, reduce capital requirements for some exposures, such as mortgages. Then, as part of the 2007 compromise on A-IRB implementation, described later in this chapter, the agencies shifted from a "Basel IA" approach to an intention to propose a "standardized" approach.

51. Comptroller Hawke's skepticism was expressed especially often in the first half of 2003 through press interviews, speeches, and congressional appearances. Though he embraced the idea of a reform project, Hawke underscored his belief that the proposals were excessively complex and worried about the imprecision of forecasts as to how Basel would change capital requirements. He emphasized repeatedly that he would carefully consider all comments to proposed implementation of the eventual Basel II rules in the United States and would not hesitate, if necessary, to make changes in the method of US implementation. Stressing that Basel II would not be an agreement binding under international law, he implied, but did not explicitly say, that these changes would not necessarily be completely consistent with the Basel II agreement itself. See Charles Pretzlik, "US Regulator Questions Basel Timetable," *Financial Times,* June 17, 2003, 28. See also John D. Hawke, testimony before the Subcommittee on Domestic Monetary Policy, Technology and Economic Growth of the Committee on Financial Services, US House of Representatives, February 27, 2003; remarks to the Centre for the Study of Financial Innovation, London, March 13, 2003; testimony

capital levels.[52] There were even occasional hints that the bank supervisors within the Federal Reserve were less enthusiastic than the governors and staff economists who had been championing the Basel II process.

After influential members of the House Financial Services Committee introduced a bill to require the four banking agencies to develop a unified position on Basel issues (and giving the secretary of the treasury default authority to determine the US position), the regulators proclaimed during June 2003 hearings on this bill that they were working well together. But just a month later, in releasing their joint advanced notice of proposed rule making for implementation of Basel, Comptroller Hawke and FDIC Chairman Donald Powell released separate statements that called into question the very concept of the IRB approach.[53] These disagreements have flared and subsided with changes in the personnel leading the banking agencies and in the Basel proposals themselves. But they have never disappeared and, indeed, continue to the time of this writing to bedevil US implementation efforts.

Despite all these problems, prospects for the Basel II effort brightened considerably in the fall of 2003. Whether part of an intentional strategy to gain the big banks as a key ally, or as a result of a series of reactive changes, the Basel Committee was slowly winning over the large banks. The successive modifications led banks to see the possibility of significantly reduced capital requirements. Also, for quite independent reasons, some US and European regulators were becoming increasingly intent on producing a final revised framework and moving to implementation. As already mentioned, the Europeans needed to move forward on a new EU capital adequacy directive and were thus anxious to have a completed Basel II. Federal Reserve officials, while acknowledging that a good deal of refinement was still necessary for the A-IRB approach, had taken the position that the only way to learn enough to make these refinements was to implement the new rules. Finally, Bank of Spain Governor Jaime

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before the Committee on Banking, Housing, and Urban Affairs, US Senate, June 18, 2003; and testimony before the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services, US House of Representatives, June 19, 2003.

52. Documentary evidence of the disagreement, in the form of a memo by FDIC Chairman Donald Powell and a reply from Federal Reserve Board Vice Chair Roger Ferguson, was leaked to the press in June 2003. Powell expressed concern that the Basel II proposals would leave large banks insufficiently capitalized and create competitive disadvantage for small banks. He also complained that the Basel II process was being "rushed into place, with discussions of significant alternatives now virtually ruled out by the timeline and by the international collaborative nature of the project." Ferguson replied that the Basel process had been "transparent and consultative" and that it was time to "move on to the next step" in the international process. See Rob Garver, "Basel Proposal Prompts FDIC to Query Fed, OCC," *American Banker*, June 17, 2003, 1.

53. See Rob Garver, "Split Among US Regulators May Stall Basel II Capital Plan," *American Banker*, July 14, 2003, 1.

Caruana succeeded Bill McDonough as chair of the Basel Committee in May 2003, bringing with him a style of shuttle diplomacy that was well suited to mediating the bevy of disputes that hindered completion of an agreed-upon version of the new capital accord.

The watershed moment came at the October 2003 Basel Committee meeting. The fruits of Caruana's efforts were apparent in what became known as the "Madrid compromise." The committee announced a proposal to modify the requirement for capital to be held against expected losses, a major victory for US banks (and for Comptroller Hawke, who had championed their cause).[54] The committee also announced its intentions to eliminate the so-called "supervisory formula" for asset securitization that had so rankled the large banks,[55] revisit the treatment of credit card exposures, and modify certain credit risk mitigation techniques.[56] Caruana had successfully navigated around German objections that the United States was trying to reopen major negotiating issues so that US regulators could take home a major prize to their banks. The apparent quid pro quo had been that, despite misgivings with the timetable in some US quarters, a final revised framework would be completed by mid-2004. Hawke, for the first time, expressed optimism about prospects for the Basel process.[57]

In the succeeding months, the committee elaborated its changes on expected losses, securitization, and other issues (see box 4.6 for a summary of all changes between CP-3 and the final revised framework). In May 2004, the committee announced that it had resolved remaining issues—including changes to the formula for revolving retail exposures (credit cards)[58]—and that it would publish the text of the new framework in June.[59]

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54. The compromise was that a bank would not be required to hold capital against expected losses from an exposure to the extent that it had taken provisions for those expected losses. If, however, the expected loss exceeded the actual provisions, the shortfall must be deducted equally from tier 1 and tier 2 capital. A provision exceeding the expected loss can be included in tier 2 capital. Because of this last feature, the loan loss reserves are no longer eligible for tier 2 capital treatment under the IRB approach (Basel Committee 2004a). The final revised framework limits the increase in tier 2 capital to 0.6 percent of risk-weighted assets.

55. The supervisory formula was a method for risk weighting unrated securitized exposures. As proposed in CP-3, it was, even by Basel II standards, incredibly complicated. In the end, the formula was not eliminated but modified. The change aligned the capital charge for these exposures more closely to banks' internal ratings (Basel Committee 2004b).

56. See Bank for International Settlements, "Basel II: Significant Progress on Major Issues," press release, October 11, 2003.

57. See Gary Silverman, "US Banks 'Should be Pleased' at Latest from Basel II," *Financial Times,* October 15, 2003, 15.

58. The compromise here involved fixing a specific, reasonably low, correlation number for potential losses attributable to the unused portions of credit lines.

59. See Bank for International Settlements, "Consensus Achieved on Basel II Proposals," press release, May 11, 2004.

Box 4.6 Basel Committee proposals between the third consultative paper and the final revised framework

Date	Proposal
August 2003	Principles for cross-border implementation of new accord.
October 2003	Proposal on treatment of expected losses and statements of intention to simplify treatment of asset securitization, to revisit treatment of credit card exposures, and to modify certain credit risk mitigation techniques.
January 2004	Modifications for expected losses. Changes to the securitization framework. Principles for home-host recognition of advanced management approach operational risk capital. Clarifications on implementation of pillar 2.

Source: Basel Committee.

Revised Framework

On June 26, 2004, the Basel Committee officially released Basel II, formally called "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" (Basel Committee 2004c). Including appendices, the paper was 250 pages long. The revised framework incorporated the October 2003, January 2004, and May 2004 proposals, and made some additional changes—notably in the areas of credit risk mitigation and qualifying revolving retail exposures. For all the technical and political adjustments along the way, the stated aims of the committee echoed those voiced at the outset of the long Basel II process.

> The fundamental objective of the committee's work to revise the 1988 accord has been to develop a framework that would further strengthen the soundness and stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks. (Basel Committee 2004c, paragraph 4)

The committee added that it believed "the revised framework will promote the adoption of stronger risk management practices by the banking industry, and views this as one of its major benefits." This outcome, while in some sense a corollary of the safety and soundness aim, had not been emphasized by the committee as a whole when the Basel II process began, although Federal Reserve officials had embraced such a goal.[60]

So too, for all the modifications made in the preceding few years, the basic structure of the revised framework had not changed, including the three-pillar approach introduced in CP-1, the three alternative methodologies unveiled in CP-2, the inclusion of a capital requirement for operational risk, special rules for dealing with securitizations, and adjustments to take account of credit risk mitigation techniques (box 4.7 outlines the main elements of the revised framework). However, the legacy of years of compromise and adjustment is conspicuous, in the form of dozens of rules or standards on which discretion is granted national supervisors in implementing the revised framework into national law. To some degree, these items reflect the committee's awareness that various features of national banking law and practice may require somewhat different treatment in capital adequacy regulation.[61] They also reflect the concern expressed by then-Comptroller Hawke and others that the Basel II process was overspecifying its rules, particularly for the IRB methodologies. At the same time, though, the exercise of discretion on many of these rules will permit nontrivial divergences in national implementation, thereby calling into question the purported goal of removing capital regulation as a source of competitive inequality.[62]

60. Even after release of the revised framework, work continued—jointly with the International Organization of Securities Commissions—to align the new rules with the requirements for market risk, refine and expand recognition of the effects of guarantees, and provide a new way of modeling exposures to counterparty credit risk. This additional work was subsequently joined to the text of the 2004 document and is now available in a comprehensive version (Basel Committee 2006g).

61. A number of provisions granting national discretion actually grant discretion to apply more stringent criteria than set forth in the revised framework. As was the case under Basel I, and as is implicit in the concept of pillar 2, national supervisors will never be understood to have deviated from shared expectations by imposing stricter capital requirements on their banks. Thus, at first glance, this set of provisions is something of a puzzle. However, in many cases the Basel Committee members intending to apply such criteria may want them mentioned specifically in the revised framework.

62. An example should illustrate the point. As a result of the political accommodation with Germany, a favorable adjustment is made to the risk-weight formula for corporate exposures as applied to small and medium-sized enterprises. The revised framework stipulates that the determination of whether a corporation qualifies as a small or medium-sized enterprise is generally to be based on its annual sales. However, supervisors are permitted to allow banks to substitute total assets for total sales as the determinative threshold "when total sales are not a meaningful indicator of firm size" (Basel Committee 2004c, paragraph 274). The standardized approach also contains numerous opportunities for the exercise of national discretion, not least of which is that national supervisors are to make the determination whether an external credit assessment institution qualifies for use by its banks (Basel Committee 2004c, paragraph 90).

Box 4.7 Outline of revised framework (Basel II)

Pillar 1

Credit Risk

Standardized Approach

- addition of a 150 percent risk category to the 0, 20, 50, and 100 percent Basel I categories
- risk ratings may be based on evaluations of external credit assessment institutions; corporate exposures may thus be as low as 20 percent
- credit conversion factor approach retained for off-balance-sheet exposures; conversion factor for commitment with maturity under one year increased from 0 percent under Basel I to 20 percent
- addition of alternative, "comprehensive" method to Basel I approach for using collateral to reduce credit risk
- supervisory discretion to allow guarantees and credit derivatives to reduce capital requirements

Internal Ratings–Based Approaches

- exposures allocated to risk categories based on internal bank assessments of probability of default and—in the advanced internal ratings–based (IRB) approach—loss given default, exposure at default, and maturity
- probability of default, loss given default, exposure at default, and maturity used as inputs for risk-weighting functions provided in the revised framework
- separate functions for sovereign, bank, corporate, retail, and equity exposures
- corporate exposure function varies for project finance, object finance, commodities finance, income-producing real estate, and high-volatility commercial real estate
- retail exposure function varies for residential mortgage loans and revolving exposures (credit cards)
- expected losses dealt with through provisioning and adjustments to capital
- extensive requirements for IRB eligibility—e.g., rating system design, validation of internal estimates, disclosure requirements
- scaling factor to IRB capital requirement to be imposed in order to achieve aim of maintaining aggregate levels of capital

(box continues on next page)

Box 4.7 Outline of revised framework (Basel II) *(continued)*

Securitization Exposures

Standardized Approach

- external ratings used to risk-weight exposures
- deductions from capital generally required for unrated exposures
- originating banks required to deduct retained exposures below investment grade
- with exception of eligible liquidity facilities, off-balance-sheet exposures generally converted to credit equivalent at 100 percent
- special capital requirements for early amortization provisions

Internal Ratings–Based Approach

- for externally rated exposures, IRB banks must use ratings-based approach, similar to standardized approach but taking into account seniority and granularity of exposure
- unrated exposures generally risk weighted through highly complex supervisory formula that incorporates certain bank-supplied inputs
- bank may use internal assessment approach for exposures to an asset-based commercial paper program
- special capital requirements for early amortization provisions

Operational Risk

- basic indicator approach requires capital charge of 15 percent of bank's average annual gross income in preceding three years
- standardized approach requires capital charge of between 12 and 18 percent of bank's average annual gross income in preceding three years for each of eight lines of business
- advanced measurement approach requires capital charge equal to risk measure generated by bank's internal operational risk measurement system

Market Risk

- conforming changes to 1996 Market Risk Amendment to minimize arbitrage possibilities between assets held in banking book and those held in trading book

(box continues on next page)

Box 4.7 Outline of revised framework (Basel II) *(continued)*

Pillar 2

Four Principles for Supervisory Review

- bank process for assessing overall capital adequacy in light of its risk profile
- supervisory ability to monitor and enforce regulatory capital requirements
- supervisors should expect banks to operate above minimum regulatory capital levels and have ability to require banks to hold capital above minimum
- supervisors should seek to intervene at an early stage to prevent capital from falling below minimum levels and should require remedial action

Selected Specific Issues

- supervisors must take action to deal with "outlier" banks, defined as those whose capital could decline by more than 20 percent in response to an interest rate shock of 200 basis points
- supervisors should assess bank credit risk concentration and management
- supervisors should adapt to securitization innovations

Pillar 3

- banks should have a formal disclosure policy and internal controls to implement it
- specific disclosure requirements on scope of application of revised framework in the banking group, capital structure, capital adequacy, credit risk, credit risk mitigation, counterparty credit risk, securitization, market risk, operational risk, equities, and interest rate risk
- credit risk disclosure requirements include explanation and description of internal ratings system for portfolios subject to IRB approach

Source: Basel Committee (2004d).

The committee stated its intention that the revised framework be "available for implementation" as of the end of 2006. However, the "most advanced approaches" required another year of impact studies or "parallel calculations" and thus would not be available for implementation until the end of 2007. In fact, the pace of implementation was slower, particularly in the United States. The European Union moved forward relatively expeditiously and without major controversy. As previously noted, the negotiation of Basel II was understood within Europe as a prelude to a new capital adequacy directive. In October 2005, the European Union adopted a new directive that incorporated the Basel II rules without significant change. That directive, binding on the member states but not applicable directly to financial institutions, is now in the process of national implementation. As described in chapter 6, implementation elsewhere—including in numerous non–Basel Committee countries—is proceeding unevenly but is in general moving forward.

Implementation in the United States has been substantially more controversial. As with Basel I, the federal banking regulators maintain they can implement the internationally agreed-upon capital standards under preexisting statutory authority. Thus, there have been no efforts to seek congressional approval or implementation of Basel II. Because prudential bank regulation is rarely a matter of general public concern except in the wake of financial failures such as the savings and loan crisis in the 1980s, debate over Basel II was confined to banking interests, regulatory agencies, a relative handful of influential members of Congress, and a small group of academics and policy commentators. Even with this qualification, though, consideration of Basel II has still been more open and sustained than in most other countries, as is often the case with international arrangements in the United States. In part for this reason, the implications of Basel II for bank safety and soundness have been addressed to a greater extent than elsewhere. However, the jockeying for competitive position has, if anything, been more spirited in the United States. Particularly in light of the fundamental questions about financial regulation raised by the subprime crisis, it is too early to say if national competitive equality concerns will ultimately trump prudential regulatory concerns, but the political history of Basel II suggests the possibility is real.

As described earlier in this chapter and further elaborated in chapter 6, congressional and constituency pressures on the Federal Reserve and the other regulators during the negotiations were largely centered on potential competitive disadvantages for US banks—whether with respect to the effects of A-IRB requirements on the portfolios typically held by large US banks, the impact of operational risk requirements on large custodial banks, or the impact of reduced capital requirements for large banks on their smaller competitors. In the two years following the release of the revised framework, however, a mild backlash occurred. Senators Shelby and Paul Sarbanes (D-MD), the chair and ranking member of the Senate Banking Committee, respectively, held hearings in 2005 and 2006 during which they openly expressed concern about the impact of Basel II on the safety and soundness of American banks. Sheila Bair, the newly confirmed chair of the FDIC, struck a distinctly more cautious note than her counterparts at the Federal Reserve and the Office of the Comptroller of the Currency,[63]

63. John Dugan, who had succeeded Jerry Hawke as Comptroller in 2005, seemed generally more favorably disposed to Basel II.

even as all four bank regulatory agencies continued to profess they were working successfully together.

With substantial uncertainty concerning the actual effects of the A-IRB approach on capital levels (to be discussed in the next chapter), as well as some concern with specific features of the pillar 1 rules, the strongest proponents of the A-IRB approach were on the defensive again. But now the questions were coming from those who feared regulatory capital would be reduced too much, rather than too little. After prolonged delay, the four federal bank regulatory agencies finally issued their notice of proposed rule making. The agencies reiterated their position that A-IRB would be required of "core" banks, defined as those with consolidated assets of at least $250 billion or consolidated total on-balance-sheet foreign exposure of at least $10 billion. Other banks were to be allowed to "opt in" to the A-IRB approach if they meet the qualifications set forth in Basel II, as elaborated by the US agencies. The proposed regulation also modified the rules in the revised framework in ways that would effectively increase capital requirements (US Department of the Treasury Office of the Comptroller of the Currency et al. 2006a).[64] In addition, the agencies proposed three overall safeguards against a significant drop in capital requirements for A-IRB banks:

- a transition floor for each bank in its first three years under A-IRB of 95 percent, 90 percent, and then 85 percent of the amount of capital that would be required under "general" capital rules, in contrast to the Basel II floors of 90 percent and 80 percent of Basel I requirements during the first two transition years[65];
- a commitment to modify the A-IRB framework if the aggregate capital of banks covered by it declines by more than 10 percent; and
- retention of the leverage ratio requirement and prompt, corrective action requirements under US law.

In proposing these safeguards, the agencies invoked the original stated aim of the Basel Committee to maintain the overall level of risk-based capital requirements. The proposal, which obviously masked some tension among the bank regulatory agencies, produced a counter reaction from cer-

64. For example, the proposed rule contained a broader definition of "default" than was included in Basel II and did not allow the adjustment successfully inserted by the Germans that provided a lower capital requirement for lending to small and medium-sized businesses.

65. The reference to "general" capital rules is apparently intended to refer to the rules that will be applicable to US non-A-IRB banks as of the time the A-IRB approach is adopted by a bank. Today those rules would be existing capital rules. By the time of implementation, those rules may have been changed under the so-called Basel IA initiative of the federal banking agencies.

tain banking industry interests. They argued that the "nonconformity" of the proposed regulation with Basel II would place US banks at a significant competitive disadvantage relative to their European counterparts. Four large banks that would be mandatory A-IRB institutions suggested that the standardized approach of Basel II be an option for all US banks, presumably because the safeguards in the agency-proposed rule could limit their capital reductions to the point where they did not exceed the expense of implementing the A-IRB approach. This proposal, in turn, was anathema to the Federal Reserve, which reiterated the disutility of a standardized risk-weighted capital approach for large, complex banking institutions.

After the 2006 elections—which saw both the retirement of Senator Sarbanes and the shift of Senator Shelby from chair to ranking member of the Banking Committee—congressional pressure to maintain capital levels waned. A period of uncertainty followed, during which it was rumored that the Federal Reserve and the Office of the Comptroller of the Currency might issue their own regulations that would omit the proposed rule's safeguards. Just when it appeared that the traditional consensus-based action of the banking agencies on capital regulation might break down, Fed Chairman Ben Bernanke became more directly involved and helped forge a compromise, announced by the agencies in July 2007. The three years of transition floors would be retained, along with the leverage ratio and prompt corrective action (themselves statutory requirements). However, the 10 percent aggregated capital floor, which had always been the most controversial of the safeguards, was dropped in favor of a commitment to evaluate the framework after the second transition year, and to address any "material deficiencies" that might be identified.[66] The agencies further announced that they would issue a proposed rule providing all "noncore" banks with the option of electing the standardized approach of Basel II. In so doing, the agencies explicitly dropped the idea of a "Basel IA"[67] and implicitly reaffirmed that the largest US banks would be required to adopt the A-IRB approach.[68]

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66. The agencies announced their agreement in the form of a press release, likely issued to quell speculation that the tradition of the four acting in unison on capital requirements had collapsed.

67. This was not, however, the end of efforts to develop an alternative to Basel I for US banks that would not adopt the A-IRB approach. In June 2008 the banking agencies issued for public comment a rule that would create a "standardized framework" for such banks. The Federal Reserve described the proposal as one that would "implement certain of the less-complex approaches for calculating risk-based capital requirements that are included in the international Basel II capital accord." Federal Reserve Press Release, June, 26, 2008. Reactions from many smaller banks were not favorable. Principal concerns included the relative complexity of the proposed new risk-bucket system and the addition of operational risk capital charges. The agencies indicated their intention to issue a final rule by mid-2009.

68. Even this apparent resolution was not without ambiguity. The staff memorandum to the FDIC board recommending adoption of the final rule implementing A-IRB indicated that

In November the agencies finally approved the text of a joint rule that reflected the July agreement (US Department of the Treasury Office of the Comptroller of the Currency et al. 2007). Early on, the comments of banking interests filed in response to the proposed rule had criticized each deviation from the Basel II text, large and small, as creating a competitive inequality for US banks. In the final rule, the agencies noted that complaints about competitive effects had been a pervasive theme in the comments. They accommodated the banks on a number of specifics, including withdrawing their proposal for a broader definition of default for wholesale exposures than is included in Basel II. But in other instances the agencies held firm, as in their continued refusal to permit US banks to apply the special function for small and medium-sized enterprises that had been successfully demanded by German supervisors in the negotiations.

The wariness among the banking agencies concerning Basel II's implementation in the United States is perhaps most evident in their awkwardly worded (and doubtless painstakingly negotiated) statement of intention on reviewing, and possibly modifying, operation of the A-IRB approach. During the transition years, the agencies will jointly issue annual reports on the effectiveness of the new framework. In addition, after the end of the second transition year, the agencies will publish a study "to determine if there are any material deficiencies." If this study finds there are material deficiencies, banks would not be permitted to "exit the third transitional floor period" before unspecified regulatory changes are made. However, as further evidence of the continuing difference in perspective among the agencies, the primary federal supervisor of a bank could disagree with the finding of material deficiency and authorize the bank to exit the transitional period if it provided a public report explaining its reasoning.[69]

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the notice of proposed rule making to make the standardized approach an option for "certain" US banks would "pose a question in the Basel II standardized notice of proposed rule making whether core banking organizations should be allowed to adopt the standardized approach as an alternative." The Federal Reserve had vigorously opposed this idea earlier, and there is no reason to believe it has had a change of heart. The final joint rule is worded so as to preserve the position of both agencies: "The agencies have decided at this time to require large, internationally active US banks to use the most advanced approaches of the New Accord."

69. The agencies apparently expect that their disagreements of the past few years will not abate during the transitional period. Presumably an agency that concluded there was no material deficiency in the A-IRB system could simply withhold approval of the joint evaluation, thereby obviating the need to disagree with it and allow a bank to exit the transitional period. The agencies may anticipate that they will need to compromise in order to issue the evaluation. The Federal Reserve Board and Office of the Comptroller of the Currency nonetheless will preserve their ability (which is legally unimpaired in any case) to let banks exit the transitional period and thus allow their capital to drop below 80 percent of the levels that would be required under the rules then applicable to non-A-IRB banks in the United States—presumably some form of the standardized approach.

Responding to the Subprime Crisis

Even as US regulatory agencies were struggling to reach consensus on an implementation plan, and before Basel II was up and running anywhere, dramatic developments in financial markets raised questions as to both the soundness of the A-IRB approach and the wisdom of supervisors having spent so much of the preceding decade focused on it. The catalyst was the subprime crisis that erupted in the summer of 2007 and, as of this writing in the spring of 2008, has yet to fully play out. The supervisory response has been somewhat schizophrenic: a general though not universal reaffirmation of the importance of implementing Basel II, along with proposals for some significant changes in response to the revealed flaws of the revised framework.

Problems in the market for securitized subprime mortgages became apparent early in 2007, when spreads on various structured products widened substantially, a seemingly lagged response to two years of increasing delinquencies on the underlying subprime mortgages (Borio 2008, 5). After a brief rebound, market repricing took hold with a vengeance in the early summer. Spreads shot upwards precipitously on most securities backed by home equity loans, including many that had been highly rated by external rating agencies and that were now downgraded en masse. Delinquency rates for subprime mortgages continued their upward trend. Many off-balance-sheet entities created by financial institutions to transfer risk were having difficulties rolling over their issues of commercial paper, because the institutional investors that buy this paper had realized they could no longer rely on the quality of the underlying mortgage-based assets. The off-balance-sheet entities—both conduits and the now-infamous structured investment vehicles—were thus forced to call upon the backup liquidity facilities provided by the sponsoring financial institution.

By late July 2007, the impact of these developments on banks was dramatically illustrated when IKB, a German bank, was unable to provide adequate support to one of its sponsored funding vehicles and had to be rescued by its principal shareholder and a consortium of other banks.[70] Though IKB was a relatively small bank, its difficulties were not dissimilar to those experienced by much larger banks on both sides of the Atlantic. A number of hedge funds and large nonbank mortgage companies also experienced severe difficulties. The spread of liquidity problems and continued credit deterioration in the underlying mortgage assets soon developed into something approaching a systemic liquidity crisis. In August LIBOR rates spiked suddenly. Banks had become increasingly unwilling to lend to one another, both because of concerns about the condition of potential counterparties afflicted with falling asset values and because they were

70. See "Sold Down the River Rhine," *The Economist*, August 9, 2007, 32.

focused on strengthening their own liquidity positions. In September a British bank—Northern Rock—suffered a deposit run and had to receive emergency assistance from the Bank of England.

The ensuing months saw a cascade of adverse developments that reinforced one another. Throughout the fall and winter, large US and European banks that had sponsored off-balance-sheet entities or dealt substantially in various forms of securitized mortgage assets took a series of write-downs. Following a stillborn effort by three large banks—encouraged by the Bush administration—to create an $80 billion fund to purchase assets from structured investment vehicles in order to relieve the liquidity crunch, a number of banking organizations brought tens of billions of dollars of structured investment vehicle assets back onto their balance sheets in the fall. The fact that at least one of these institutions, Citigroup, had no contractual obligation to do so suggested that *no* capital requirements would have captured the risks that had been effectively assumed.[71] Capital ratios of banks and bank holding companies dropped, and a number of banks sought large injections of new equity from sovereign wealth funds and other sources of readily available capital. Credit problems spread to other forms of securitized assets, while credit markets remained somewhere between impaired and frozen.

At first glance, the origins and severity of the subprime crisis seem to reflect very badly on Basel II. After all, three of the prominent features of the revised framework were reliance on external rating agencies, use of internal risk assessments, and lower capital requirements for residential mortgages. Yet defaults on mortgages were at the center of the crisis, credit models had clearly failed to capture the risks embedded in the securitized assets, and the rating agencies had seemed—as in the Asian financial crisis a decade before—to be behind the curve.[72] The origins of the subprime crisis—from the so-called "originate-to-distribute" model of mortgage lending to the serious liquidity problems of financial institu-

71. The motivation for Citigroup's action was understood by market actors to be grounded in reputational considerations. If Citigroup did not stand behind an entity that it had created, its customers might become more reluctant to involve themselves in future Citigroup ventures. Appropriately enough, Citigroup's response in late 2007 had been anticipated 20 years earlier by its then-chairman, Walter Wriston, in testimony before the Senate Banking Committee: "[I]t is unconceivable that any major bank would walk away from any subsidiary of its holding company. If your name is on the door, all of your capital and assets are going to be behind it in the real world. Lawyers can say you have separation, but the marketplace . . . would not see it that way" (US Senate 1987, 9).

72. In the spring of 2008, reports surfaced to the effect that Moody's own computer modeling had incorrectly assigned higher-than-warranted ratings to various forms of structured debt instruments. See Sam Jones, Gillian Tett, and Paul J. Davies, "Moody's Error Gave Top Ratings to Debt Products," *Financial Times*, May 21, 2008, 1. If further inquiry bears out these reports, the incident will at once capture the potential dangers of excessive reliance both on modeling and on external rating agencies in setting regulatory capital.

tions—led some to resurrect the criticism that the Basel II exercise had commanded far too much of the Basel Committee's attention in the preceding decade, at the expense of other important supervisory challenges.

Defenders of Basel II countered that, had the revised framework been in place, banks would have been required to set aside capital against the risks entailed in their credit enhancements for their off-balance-sheet entities, whereas Basel I did not require any capital set-asides for commitments of less than a year's duration. They also underscored the core aim of Basel II to provide greater risk sensitivity. Finally, they suggested that Basel II's emphasis on better risk management and stress-testing might have placed banks in a stronger position.[73] The first point was somewhat weakened by the fact that US regulators had unilaterally instituted capital requirements for credit enhancements in 2005, well before the subprime crisis. The last two points undoubtedly had merit but did not really counter the criticism concerning models, rating agencies, and the lowering of capital requirements for mortgages.

Even as strains on banks from the subprime crisis were becoming evident in the spring and summer of 2007, regulators from Basel Committee countries generally gave no indication that events counseled a reconsideration of Basel II. On the contrary, the emphasis in public statements was on the need to move forward with implementation.[74] As losses mounted and strains became a full-blown crisis, however, serious questions about the adequacy of regulatory systems for commercial banking and other large financial institutions were being asked by knowledgeable people both in and out of the official sector. At their October 2007 meeting, the G-7 finance ministers and central bank governors instructed the Financial Stability Forum (FSF)—an umbrella group of national and international financial authorities that includes the Basel Committee—"to undertake an analysis of the causes and weaknesses that have produced the turmoil and to set out recommendations for increasing the resilience of markets and institutions going forward" (Financial Stability Forum 2008, 1) In April 2008, the FSF released its report and recommendations, which included proposed changes to Basel II. A week later, the Basel Committee echoed the FSF in its own press release.[75]

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73. See "Special Report on the World Economy: On Credit Watch," *The Economist*, October 20, 2007, 94.

74. See Randall S. Kroszner, "Basel II Implementation in the United States," speech at the New York Bankers Association Annual Visit, Washington, July 12, 2007; see also Nout Wellink, "Basel II and Financial Institution Resiliency," remarks at the Risk Capital 2007 Conference, Paris, June 27, 2007. Most regulators avoided saying much of anything about Basel II during this period. At least one used the developing problems to highlight preexisting skepticism about the new regime. See Sheila Bair, remarks at the Risk Management and Allocation Conference, Paris, June 25, 2007.

75. Bank for International Settlements, "Basel Committee Announces Steps to Strengthen the Resilience of the Banking System," press release, April 16, 2008.

Box 4.8 Proposed changes to Basel II following the subprime crisis

Pillar 1

- higher capital requirements for complex structured credit products "which have produced the majority of losses during the recent market turbulence"
- strengthened capital treatment of liquidity facilities extended in support of off-balance-sheet entities
- strengthened capital requirements for assets held in the trading book (in cooperation with the International Organization of Securities Commissions)
- monitoring of Basel II minimum requirements and capital buffers over the credit cycle in order to determine if further measures were needed "to help ensure . . . a sound capital framework for addressing banks' evolving and complex risk profiles"

Pillar 2

- new guidance on risk management practices, including management of firmwide risks, stress testing, capital planning, off-balance-sheet exposures, and associated reputational risks; management of risks relating to securitization; and supervisory assessment of banks' valuation practices

Pillar 3

- enhanced disclosures relating to complex securitizations, asset-backed commercial paper conduits, and the sponsorship of off-balance-sheet entities

Other

- sound practice standards for the management of liquidity risks
- supervisory guidance for assessing banks' valuation practices

Source: See footnote 75.

The intended changes, summarized in box 4.8, were obviously directed at the most immediate culprits in the subprime crisis—securitizations and exposures to off-balance-sheet entities. In one sense, the committee had proposed the minimum number of adjustments while still appearing responsive. The most immediate attention was directed toward liquidity management, a response essentially compelled by the circumstances of the crisis, in which liquidity problems had played such a prominent role.[76] This acceleration of the committee's activities on liquidity risks could be read as an implicit acknowledgement that it had erred in deferring major work on this subject until Basel II was completed. Still, the committee evidenced no reconsideration of the risks associated with residential mortgages themselves (as opposed to securitizations of those mortgages) or disquiet with the role of external rating agencies in Basel II, much less with the core reliance of the IRB approaches on internal risk models.

Conclusion

Robert Putnam's (1988) well-known idea that the politics of international negotiations are often best understood as a "two-level game" in which domestic and international politics are entangled is a useful heuristic device in assessing the Basel II process. Kapstein (2006) models patterns of international cooperation among financial supervisors by inserting into the two-level game the privately generated demands for a level playing field and the publicly generated demands for a stable international financial environment. While Kapstein focuses more on the substantive merits of Basel II than on the strategic setting within which the agreement was forged, the review of Basel II history in this chapter can also be filtered through the Putnam metaphor to reveal factors that helped shape those substantive outcomes.

The principal conclusion that emerges from this review is that the Basel II process was launched without an adequately developed set of goals. The regulators participating in the Basel Committee set out to deal with the problems created by Basel I but, as soon became clear, they had little idea of where they were headed. Indeed, the international process was being used by the Federal Reserve to overcome the resistance of other US bank supervisors to the use of internal models, rather than to advance a well-developed capital requirements model. There was thus no shared US negotiating position or substantive goal. As a result, the various national participants could not know what Putnam characterizes as the "win-sets" of negotiators—the set of possible international outcomes that are politically viable at home.

76. The committee had already issued a February 2008 paper on liquidity risk that reviewed recent developments that had revealed the inadequacy of banks' systems for managing this risk and surveyed relevant existing supervisory regimes (Basel Committee 2008a). In June 2008, the committee issued a consultative draft (Basel Committee 2008b) that overhauled the guidance it had previously issued in 2000. The new guidance was built around 17 principles. Most were directed toward sound risk management practices for banks, though a few were directed at supervisors. The committee did not propose any quantitative liquidity requirements.

In the United States, moreover, Federal Reserve officials appear to have misjudged—or at least taken insufficient account of—the domestic political economy of capital regulation. It appears that they were so focused on converting other regulators—both in the United States and other Basel Committee countries—to some variant of an internal models approach that they never devised a domestic political strategy to deal with constituent interests and pressures. In the absence of the banks' need for government assistance, as had occurred prior to the negotiation of Basel I, there was no political momentum from external sources such as Congress for revamped capital regulation. The features of the Basel II process resembling trade negotiations accordingly took on increased prominence, as banks and at times their allies in elected office pressured regulators for increased competitive advantage, with little regard for prudential considerations. The influence of the large financial institutions was strengthened further as it became apparent that the committee had insufficient expertise to develop the A-IRB approach on its own and thus relied on the banks to provide much technical input into the process.

Though harder to document, a possible additional factor was that, once publicly committed to the Basel II process, its principals were loath to abandon it, even as they lost control of the exercise that was becoming extraordinarily complex and being buffeted by domestic political forces. The declaration by former US Trade Representative Carla Hills that "no agreement is better than a bad agreement" has become something of a mantra for trade negotiators trapped in difficult negotiations, presumably intended to reassure domestic constituencies that their interests will not be sacrificed in an effort to maintain international harmony. In fact, Ambassador Hills may be one the few trade negotiators to have actually lived by her oft-echoed declaration. Negotiators more frequently appear to regard an inability to reach agreement as failure and thus are more likely to conclude an agreement and then defend it as best they can. This tendency is doubtless due in part to their personal interests, since negotiators who do not negotiate agreements have few accomplishments to which they can point at the end of their tenure in office. Yet, just as domestic interests fear, a troubled negotiation may also be brought to a "successful" conclusion because of concerns that collapse of the effort will have negative effects on existing patterns of cooperation.

Whatever their reasons, the principals in the Basel II negotiations doggedly continued their effort, even if that meant repeatedly accommodating the demands of financial institutions and individual Basel Committee countries. The next chapter evaluates the results of those negotiations and, given this background, not surprisingly finds serious flaws in Basel II. While it is, of course, impossible to say whether the product of a new Basel Committee effort on capital regulation would have been substantially improved by a more extended period of study and consultation in a nonnegotiating context, it is reasonable at least to conclude that the way in which the Basel II process was launched and conducted increased the chances of a suboptimal outcome.

A final point is that the revised framework was not the last word on the Basel II exercise. This is one of the respects in which that exercise resembles a domestic regulatory process more than a trade negotiation. Release of the revised framework may have signified an end to major changes, and the text itself technically has not been changed. Still, the Basel Committee issued no fewer than eight papers elaborating or interpreting the revised framework between July 2004 and August 2006.[77] Indeed, at the time the revised framework was released, Basel Committee Chair Jaime Caruana indicated that Basel II will, in response to technological developments, continue to change even after it takes effect. As detailed in the preceding section, the 2007–08 subprime crisis prompted reconsideration of significant elements of Basel II even before it had been fully implemented. Unlike Basel I, which was amended a handful of times over its first decade, Basel II may be subject to nearly continuous revision. This prospect raises the question whether that process will be a fundamentally technical one or whether it will present repeated occasions for the reassertion of nationally grounded interests.

The current situation in the United States does not suggest an obvious answer to this question. Following release of the revised framework, there was a temporary rebalancing of the political and institutional forces affecting capital regulation in the United States. The result was an extended domestic debate and a partial retreat from a commitment to the A-IRB approach. The relative weights of competitive equality and prudential concerns shifted back and forth several times, a phenomenon perhaps made possible by the absence of general political interest in the subject. As of this writing, the domestic politics of capital regulation in the United States had not found an equilibrium point. While the aftermath of the subprime crisis may give an advantage to prudential considerations, experience suggests that this weight will rather quickly be removed from the scales once the crisis has passed.

77. Most of these papers have been in the form of guidance in the interpretation or implementation of the revised framework (Basel Committee 2004e, 2005a, 2005b, 2005c, 2005d, 2006a, 2006b). One was a more significant effort to deal with potential "double default" situations involving exposures arising from trading activities (Basel Committee 2005e).