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Basel II as an International Arrangement

The preceding chapter raised significant questions as to whether the advanced internal ratings–based (A-IRB) approach of Basel II is a suitable model for domestic banking regulation. This analysis, though indispensable to determining whether Basel II is an advisable policy innovation, cannot end the inquiry. Basel II is, after all, an *international* arrangement, the product of an international committee of bank supervisors whose very existence evidences the belief that some degree of coordination on bank regulation is necessary. Thus, the ultimate assessment of Basel II also depends on whether it is likely to achieve valuable international cooperation. This chapter explores the relationship between the international arrangement and the Basel II regulatory paradigm to be implemented in domestic laws.

Described as an international arrangement rather than as the domestic regulatory model created by that arrangement, Basel II is a harmonized set of capital adequacy and supervisory requirements that, at least with respect to the IRB approaches, were developed more or less from scratch through international negotiations. These harmonized requirements, which are both detailed and complex, are to be overseen within a fairly informal institution composed of national banking supervisors. Basel I was also a harmonized set of capital adequacy requirements—albeit a considerably simpler one—overseen within the informal setting of the Basel Committee. Unlike Basel II, however, it did not include any explicit expectations as to how national officials would go about implementing the capital requirements for banks. That is, it laid down only the substantive rules that should be made binding on banks at the national level, not a particular approach to supervision. Moreover, the starting point for its negotiation was the bilateral US-UK understanding, which itself was based on notions of risk-weighted capital requirements that had been evolving for some time in a number of countries.

The potential benefits of the Basel approach to an international harmonization of capital requirements (again, with a special emphasis on the IRB methods) may be grouped into four categories.[1] First, shared capital rules may provide reassurance to each country that banks in other countries are sufficiently sound that they are unlikely to create significant counterparty risks for the country's own banks, or even trigger an international financial crisis. This potential benefit, shared by Basel I and Basel II, is most obvious as it applies to large, internationally active banks of the Basel Committee member countries themselves. To the degree that sensible harmonized standards are emulated by nonmember countries, two further benefits could ensue—increased assurances of soundness of large, internationally active banks from nonmember countries and decreased risk of emerging market financial crises triggered by a domestic banking crisis.

Second, capital harmonization may make conditions of competition among banks from different countries more equal. As discussed in chapters 3 and 4, this has been a strong motivating factor for both Basel I and Basel II.

Third, harmonized rules, standards, and supervisory procedures may facilitate consistency and efficacy of supervisory treatment for multinational banks. This enhanced international supervisory cooperation may derive in part from an international parallel to the domestic benefits of a "common language" for bank risk positions, a subject that has assumed greater importance to supervisors based on their experiences under Basel I.

Fourth, harmonization may yield direct benefits for nongovernmental actors. Multinational banks subject to supervision in multiple countries may find their regulatory burdens substantially reduced if a single set of capital requirements applies to all their subsidiaries and branches. The trading of credit risk and the scrutiny of banks by investors may be facilitated by the same common language developed for supervisory purposes. These kinds of effects may also be indirectly beneficial for safety and soundness goals.

1. The committee's statement of objectives in the first consultative paper included continued promotion of safety and soundness of the financial system, enhancement of competitive equality, a more comprehensive approach to risk (the "three-pillar" approach), and combining a focus on internationally active banks with the development of principles applicable to all banks (Basel Committee 1999b). With the shift in emphasis toward IRB approaches, the committee explicitly added increased risk sensitivity to its list of aims (Basel Committee 2002a), although this overall aim had obviously informed the Basel II project from the outset. Finally, as already noted, the committee has indicated its intentions to maintain aggregate capital levels at roughly current levels and provide an incentive for banks to adopt the IRB approaches. The aims of a more comprehensive approach to risk and increased risk sensitivity are, in fact, specific objectives in pursuit of the overall aim of increased safety and soundness.

Every effort to standardize regulation internationally raises the question of whether the harmonized regulation is appropriate for all countries. This is a particularly salient question with respect to Basel II, which attempts to harmonize rules at a level of detail greater than in any previous international effort in any regulatory area. The relevant inquiry consists of two parts. First, how effective is Basel II likely to be in achieving the desired benefits from harmonized banking regulation? Second, will these gains from harmonization outweigh the costs of accepting uniform international standards in place of a regulatory regime customized for national circumstances and preferences and administered more or less autonomously? The remainder of this chapter examines the relative importance of each of the potential gains from international cooperation and the likelihood that Basel II will in fact achieve these gains.

Like the previous chapter, this one is largely predictive, since policy decisions are by definition forward-looking. Indeed, because Basel is such a novel international arrangement, experience with existing arrangements is only obliquely instructive. We must rely on what we do know—the current state of banking regulation, the capabilities and political constraints of supervisors, the institutional features of the Basel Committee, and the history of the negotiations—in projecting the impact of Basel II. For all its elusiveness, though, this exercise is essential to answering the question of whether Basel II is well advised. The very novelty of Basel II also makes it an experiment of considerable interest in addressing challenges in regulating other forms of international economic activity or considering alternatives to trade agreements as mechanisms for reducing barriers to international trade and investment.

Safety and Soundness

As noted in previous chapters, enhancing the safety and soundness of internationally active banks has been a stated aim of the Basel Committee in both Basel I and Basel II. The idea is that the failure of one significant bank could, in an internationally integrated banking environment, create problems for banks from other countries. In an extreme case, a systemic crisis could develop. Indeed, the Basel Committee was itself formed by national supervisors in response to international financial tremors following the failures of the New York–based Franklin National Bank and the Cologne-based Herstatt Bank in 1974.

As a preliminary matter, it is interesting to note that neither in Basel I nor in its work on Basel II has the committee ever specified the precise safety and soundness objective of capital regulation. The absence of a stated rationale for capital regulation is not simply a matter of academic interest. As explained in chapter 2, different views on the incentives of banks, the effects of safety nets, and the rationales for bank regulation can yield rather different paradigms for capital requirements. Lacking any such statement, one is left to infer the theoretical underpinnings of Basel II from the revised framework itself.

Regulatory imposition of capital ratios can be justified as a device to force banks to hold the capital that markets would require in the absence of the government safety net, a protection against the systemic problems that could result from bank failure, or both. The A-IRB approach in pillar 1 appears to reflect the first of these justifications. It calls for construction of a probability density function of possible losses that could be expected to occur over a given time period. It then specifies the particular level of capital that will lower the probability of insolvency to a confidence level of 99.9 percent. This is a high standard, to be sure. However, the US bank supervisory agencies have acknowledged that this nominal target likely overstates the confidence level actually achieved, because of the possibility of errors in calculating the input values and the omission of portfolio concentration considerations. In any case, by definition, this basis for calculating capital ratios does not protect against an "extreme tail event"—that is, an event producing losses that *do* render the bank insolvent even if it maintains capital levels prescribed by the model.

For most firms in most industries, the opportunity costs incurred in insuring against extreme tail events are sufficiently large as to render this practice economically misguided. In the commercial banking sector, however, extreme tail events are roughly congruent with systemic crises. Because of the close interrelationships of banks through interbank lending and the payments system, an extreme tail event at one bank may generate massive negative externalities for the economy as a whole. In light of these considerations, the December 2003 Federal Deposit Insurance Corporation (FDIC) staff study argued that "the capital banks should hold from a social welfare perspective would normally be expected to exceed the capital that the banker calculates to meet his own needs" (FDIC 2003). The possibility of financial crisis has led one commentator to suggest that there should be two prudential capital standards—one that seeks to protect taxpayers through a maximum expected loss rate per dollar of insured deposits and an additional insolvency probability rule for large banks whose failure would pose a systemic risk (Mingo 2000).

One might have thought that an international agreement on capital requirements would be most directly concerned with containing systemic risk that might threaten the global financial system. However, although the matter is not without some ambiguity, it appears that Basel II is not directed at systemic risk. Like its 1988 predecessor, Basel II establishes formulas for *minimum* capital ratios. As already mentioned, national regulatory policies provide for higher regulatory capital ratios for many banks, and the supervisory principles in pillar 2 specify that national supervisors "[s]hould 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"(Basel Committee 2006g, paragraph 757). The emphasis of the brief section on above-minimum capital is on "bank-specific uncertainties." The committee states that pillar 1 includes a buffer for "uncertainties surrounding the pillar 1 regime that affect the banking population as a whole." Since the capital ratio calculations in pillar 1 are grounded in a conventional credit risk–modeling technique, there does not appear to be a specific evaluation relevant to systemic risk. Of course, if capital ratios are set at levels higher than the protection of deposit insurance funds alone would require, then one might say that a buffer has been provided with an eye toward preventing systemic problems. However, this conclusion assumes that the systemic risk associated with a bank's operations is in some sense proportional to its credit risks.

Thus, the better, though not conclusive, reading of the revised framework is that it tracks the views of Alan Greenspan recounted in chapter 2. Containment of systemic risk is a task for central banks in their lender-of-last-resort function. But if systemic risk containment is excluded as an objective of Basel II, one is left with a bit of a puzzle. Despite the importance to national supervisors of the safety and soundness of their banks and the present centrality of capital regulation to safety and soundness, the role of an international agreement in promoting this end is not as obvious as it may seem. At first glance, one might think that an international agreement could contribute to the safety and soundness of a country's own banking system by requiring each participating country to adopt a superior bank regulatory paradigm. Implementation of such a paradigm should reduce to acceptable levels the risk of illiquidity or insolvency and, accordingly, contain risk to counterparty banks headquartered in other countries. However, the question that immediately arises is why, if this regulatory paradigm is a superior one, participating countries must form an international agreement to implement it. Unilateral adoption would presumably be in the interests of each country.

A more persuasive argument for harmonizing international capital standards, at least where the negative spillover effects associated with systemic risk are not front and center, rests on concerns that each national regulator has some incentive to adopt less rigorous capital standards than the home countries of banks with which its banks compete. Alternatively, a national regulator may adopt robust standards but then fail to enforce them vigorously. In either case, national governments arguably indirectly subsidize their banks' risk-taking (White 1994). Dell'Ariccia and Marquez (2006) offer a variation on this argument with their suggestion that high capital standards in one jurisdiction create a positive externality for other jurisdictions. Internationally active banks from the other jurisdictions enjoy increased returns not just from their ability to make more loans with the additional increment of usable capital but also because the constraints imposed on the banks in the strict jurisdiction may reduce supply for those marginal loans and thus increase the interest rate that the less constrained banks may charge. If this effect were significant, the higher profits would—ironically—make the banks with lower capital requirements *safer.* At the same time the higher capital standards in the stricter jurisdiction may make its banks safer and thus pose less of a counterparty risk to other internationally active banks.

While some of these effects may be questioned on both theoretical and practical grounds, the basic point is that there will be pressures on national supervisors to relax prudential regulation so as to provide a competitive advantage to their banks. One can easily envisage regulators currying favor with domestic banks to advance their own careers or, more likely, coming under pressure from legislators or elected members of a government to do so. These external pressures, which arise from the domestic political influence of banks, may seek international competitive advantage for domestic banks or simply regulatory forbearance for the benefit of existing management or owners of a bank. Of course, if other national regulators "meet the competition" by relaxing their own standards, then competitive advantage for any one country's banks will have been lost, but the international banking system will be left more fragile. An international agreement that each country impose specified minimum capital levels could help insulate national regulators from domestic pressures and thus avoid this form of—if not quite a race toward the bottom—a slide toward lower elevations.[2] The initiative for this solution to the collective action problem might come from nonsupervisors concerned with the competitive position of their country's banks, as was the case with Basel I. Alternatively, supervisors themselves might seek the international arrangement to reduce anticipated domestic pressures that would follow a "unilateral" change in capital regulation, as might have been the case in Basel II.

Understood in this way, the safety and soundness rationale for Basel II is closely related to the competitive equality rationale discussed below. From either perspective, the problem is that supervisors in other countries may relax their prudential regulation in response to pleas for competitive advantage (or equality) by, or on behalf of, their banks. Hence a good bit of the discussion that follows is also applicable to the competitive equality rationale for Basel II. One important difference, though, is that the safety and soundness perspective demands analysis of the desirability of the harmonized standard. Regulators could pursue competitive equality for their banks by using virtually any standard, as long as it has similar effects on

2. As described in the text, this rationale for an international harmonizing agreement assumes both that the optimal capital standard would have been produced by the domestic regulatory process in the absence of international competition and that the trade-off between banking system soundness and availability of capital to the economy is similar for each country. Even if these simplifying assumptions are relaxed, the basic point about the potential for competitive regulatory capital reductions remains valid.

banks from different countries, but their prudential goals require an assessment of how well the paradigm achieves those goals. In fact, there is some basis for believing that the safety and soundness motivation was eclipsed during the Basel II process by the competitive equality motivation.

The contribution of Basel II to the safety and soundness of a national banking system will derive principally, though not entirely, from its combined effects on bank regulation domestically and in other countries. Strictly speaking, these effects should be gauged through a comparison between the revised framework as a regulatory paradigm and the regulation each country would have enacted in the absence of this international arrangement. In circumstances where, before the international negotiation, each country had its own regulation in place, one could begin with at least a general idea of what the regulatory situation would have been without the agreement (though the possible downward pressures on regulation would need to by hypothesized). However, in the case of the A-IRB approach of Basel II, there *was* no comparable national regulation. The very fact that the A-IRB approach was developed by the Basel Committee more or less from scratch renders highly speculative any effort to compare this regulatory model with the systems that would have prevailed around the world in the absence of an international arrangement. Accordingly, the discussion here focuses directly on the utility of the Basel II A-IRB approach as the method of capital regulation.

Domestic Costs of Internationally Harmonized Regulation

Any undertaking to harmonize among many countries one element of domestic regulation entails certain costs that are, in practice, unavoidable. Most important among these costs is the inevitable divergence of the internationally harmonized standards from those that would be most appropriate to each country's industry structure, scheme of financial regulation, and political preferences. For example, we have already noted in the context of US law that the relative significance of risk-weighted capital requirements depends in part on whether other capital requirements such as leverage ratios are also imposed. Similarly, a highly risk-sensitive deposit insurance system would address some of the same moral hazard problems that capital requirements are meant to offset.

A related shortcoming of harmonized regulation is that it may limit the capacity of national officials to adjust their regulatory practice to national conditions. That is, in placing a floor under the stringency of each country's capital regulation, a negotiated set of regulations will foreclose variations that would be superior to the harmonized rules. Despite the many elements of Basel II left to national discretion, there are rigidities that could develop into significant drawbacks, particularly over time. It appears, for example, that the assumption embedded in the Basel II formulas that asset value correlations are uniform across countries is at least partially undermined by empirical studies (FitchRatings 2004, 2008). Moreover, as European Union Commissioner Frits Bolkestein has pointed out in the context of EU implementation of Basel II, competitive equality considerations affect the tradeoff between flexibility and comparability (Ayadi and Ross 2003).

A good illustration of this limitation in the context of Basel II relates to the problem of procyclicality. Some of the more creative thoughts on how to ameliorate this problem would provide for the adjustment of capital requirements as macroeconomic conditions in a country change significantly (Kashyap and Stein 2004, Gordy and Howells 2006). However, to allow these deviations—particularly given the difficulty of formulating ex ante a formula that links capital requirements to macroeconomic conditions—would be essentially to allow different capital rules for banks depending on their national economic conditions. The difficulty in monitoring the extent of such deviations by national regulators is part of the larger problem of monitoring Basel II considered below. In addition, this kind of solution to the procyclicality concern raises the prospect of a bank in a recession-afflicted country having lower capital requirements and thus potentially being advantaged in international lending markets over its competitors from robust economies. The upshot would be a compromise, if not of the safety and soundness aims of Basel II, then surely the competitive equality aim.[3]

Another cost, as is often observed with respect to international arrangements of all sorts, is that it is very difficult to make incremental but significant changes. The substantially larger number of relevant actors and effective requirement of unanimity (or at least consensus) make amendment of an international agreement considerably more difficult to achieve than a purely domestic regulatory scheme. The final version of Basel II reflects two complicated sets of bargains: first, between national supervisors and domestic constituencies (banks, legislatures, etc.); and second, between national supervisors and their counterparts from other countries.[4] These compromises are themselves related—domestic political imperative in one country can lead to a negotiated change in the proposed international rules, which in turn can require a renegotiation of other

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3. Kashyap and Stein (2004, 28–29) further suggest that, in the absence of an ex ante mechanism for reducing capital requirements during bad macroeconomic times, regulators will improvise ways to forbear, "with all the accompanying potential for various forms of regulatory moral hazard . . . [because] it will be left to regulators to relax the rule as they see fit—perhaps in a highly subjective case-by-case basis—without any previously imposed restraints." This insight draws attention to the Basel Committee's relative lack of monitoring capacities, discussed later in the text.

4. The failure of US regulatory agencies to obtain informal agreement of the Congress on the emerging Basel II proposals led directly first to the need to change directions during the negotiations and then, more seriously, to the difficulties encountered by the agencies in attempting to implement the revised framework once it was completed.

countries' domestic rapprochements.[5] Not only does this dynamic alter the substance of the final agreement, creating some of the incongruities described earlier, but it also makes the agreement more difficult to modify. Changing one rule may disrupt the equilibrium between the two levels of the arrangement and thereby necessitate a more extensive reworking. Some may fear that attempting even modest change may reopen issues that were difficult to resolve in the first place.

Thus, there is a good possibility that, to the extent the rules-based approach of Basel II takes hold, it will be resistant to change in important particulars. If so, national regulators will have two unattractive alternatives. One is to depart from Basel rules unilaterally, thereby risking an unraveling of the arrangement. The other is to accept the constricting effect of an arrangement that began as an unstable hybrid and becomes increasingly detached from the sophisticated risk management techniques that supposedly informed the governing paradigm. US regulators appear to have opted for both alternatives in the case of Basel I. Because it was far less detailed than Basel II, there was ample room for national supervisors to supplement credit risk capital ratio requirements without breaching provisions of Basel I.[6] At the same time, the failure of the United States, or any other country, to unilaterally discard the Basel I method that nearly everyone agreed was outmoded suggests there is something to the "stickiness" of international agreements.

In some circumstances this stickiness may be a useful check on precipitous constituency-driven changes that might otherwise occur in some countries. However, in the context of Basel II, this characteristic is likely to be counterproductive. The rapid evolution of risk assessment and management techniques, along with the considerable uncertainty as to how the A-IRB methodology will work in practice, renders this higher hurdle problematic. Although some committee officials profess the intention to regularly adjust Basel II to technological change, it seems unlikely that changes in risk-weight formulas or other parts of the capital adequacy calculation will appear purely technical to banks and other interested parties. Judging by the complaints of large US banks over the federal banking agencies' inclusion in their notice of proposed rule making of several provisions that were stricter than parallel rules in the revised framework, even unilateral "Basel-plus" measures will be more difficult to implement than under Basel I, perhaps excepting periods during and immediately after significant financial dislocations. Thus there is a strong possibility that modifications to the A-IRB methodology will lag significantly behind advances in risk assessment technologies.

5. This dynamic is an example of the "two-level game" famously conceptualized by Putnam (1988) and discussed in the conclusion of chapter 4.

6. For example, US banking regulators imposed capital requirements specific to derivatives and securitized assets, two important classes of assets only obliquely dealt with in Basel I.

Benefits of Harmonized Regulation Abroad

Chapter 5 discussed the significant shortcomings of Basel II as a regulatory model for the United States. In light of the protracted controversy over its domestic implementation, it is at least questionable whether, in the absence of an international arrangement, the domestic regulatory process in the United States would have produced the A-IRB approach. Of course, the rationale for international harmonization of capital adequacy requirements implies that the suboptimality of the harmonized requirements for domestic purposes may be more than outweighed by the beneficial effects of better capital regulation in other Basel Committee countries. If Basel II is effective in aligning regulatory capital more closely to actual risk, even incompletely, its enactment and effective implementation by the home countries of internationally active banks could advance safety and soundness goals.

As has been seen, it is not at all clear that US banking agencies are capable of adequately evaluating internal risk models and monitoring their operation, particularly if dozens of banks elect the A-IRB approach. These concerns exist despite the relative activism of US bank supervision, which relies on the exercise of substantial supervisory judgment in assessing bank operations. Every bank is subject to complete on-site inspection at least annually. The large banks for which US regulators have indicated the A-IRB would be mandatory have permanent on-site teams of examiners.

Doubts concerning the desirability of the Basel II internal model approach to capital regulation in the United States can only be stronger with respect to most other Basel Committee countries. Bank examination elsewhere is considerably less intense. A number of countries—including Italy, Japan, and the United Kingdom—do not require annual onsite examinations (Nolle 2003).[7] More tellingly, a calculation by Office of the Comptroller of the Currency staff showed that the ratio of banking assets to supervisory staff in the United States was nearly 50 percent smaller than in any other Basel Committee country, suggesting that the supervisory process elsewhere is less oriented toward the interstices of a bank's risk management systems.[8] In general, supervisors in other countries rely more on an examination of information submitted by banks and reviewed by

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7. In Japan, on-site examinations are to be conducted every other year, and in Italy every five years. In the United Kingdom there is no regular on-site examination schedule; the UK Financial Services Authority may conduct them at its discretion.

8. The ratios ranged from $1.14 billion per supervisory staff member in the United States to $17.9 billion in Japan and $18.7 billion in Switzerland (Nolle 2003). Of course, these gross numbers are just that and are not adjusted for such factors as the relative size of banking institutions, the manner in which staff are deployed, and the relative effectiveness of other tools for regulation (e.g., external auditors). Still, the differences are striking.

auditors.[9] This approach comports reasonably well with Basel I and the standardized approach in Basel II. It seems quite incompatible with a regulatory paradigm that builds on banks' internal risk management systems, as opposed to a system of clearly delineated risk buckets and weights.

This concern about the capacities of national regulators, and about the ability of their peers to monitor their supervisory performance, is another manifestation of what seems a disproportionate emphasis in Basel II on the pillar 1 rules for minimum capital ratios. Although Basel II sets forth as one its key principles in the pillar 2 regimen that the supervisor "review and evaluate banks' internal capital adequacy assessments and strategies," it stipulates that supervisory review may be effected through "some combination of" five methods (Basel Committee 2006g, paragraph 746). Since on-site examination is included as but one item in this list, along with "off-site review" and "review of work done by external auditors," it is quite possible that on-site examinations will continue to play a minor supervisory role, even of A-IRB banks. Similar concerns obtain for use of the foundational IRB approach, because a bank's internal calculation of probability-of-default values is a central element in determining capital ratios.

Pillar 2 puts forth a set of expectations for national officials to meet, but in doing so it elides the substantial divergence in supervisory capacities and traditions. Thus, Basel II itself does little to directly accelerate the development of the supervisory expertise and practice that will be necessary to oversee a capital regime based on banks' internal models. It may be that, in implementing the arrangement, all the Basel Committee members will see the need for a change that amounts to a supervisory revolution in some countries. Indeed, anecdotal information indicates that Germany, in particular, is altering its mode of supervision as part of its A-IRB implementation, although some other countries are said to have changed very little to date. At best, a shift in supervisory cultures will be a gradual and uneven process. Moreover, there is little in Basel II itself beyond the fact of the impending A-IRB approach to make this hope for a supervisory version of a "big bang" more likely to be realized.[10]

The aim of enhancing the safety and soundness of all internationally active banks is a worthy one. Yet there is considerable doubt that this aim will be served by an approach based on a conceptually contestable

9. See, for example, the assessment of the German supervisory system in IMF (2003, paragraph 60).

10. An additional question about the efficacy of Basel II is whether *any* system of capital requirements is being adequately monitored by national supervisors. After reviewing the limited available record of capital enforcement in the United States, Wellons (2005, 323) found "a tendency of supervisors to identify certain problems but to fail to follow through." Since there is not even limited enforcement data published for some other countries, it is very difficult to evaluate how well enforced Basel I capital standards have been.

paradigm that poses significant implementation difficulties in the United States and sits uneasily with the entire supervisory culture elsewhere. The monitoring problems identified in the domestic regulatory context in chapter 5 are only magnified in an international arrangement. US authorities, instead of being reassured by the existence of Basel II requirements, will surely harbor doubts as to whether supervisors in other countries are able to monitor banks' capital calculations adequately. (Conversely, supervisors in other countries might reasonably harbor reciprocal doubts about US supervisory performance, particularly if dozens of banks adopt the A-IRB approach, and particularly in light of the supervisory failures revealed by the subprime crisis.)

Even if national supervisors are able to supervise adequately, their counterparts will have difficulty satisfying themselves of this fact. The highly particularized nature of each bank's model makes the bank harder to monitor by national regulators, the regulators less accountable to their governments and publics, and national regulators harder to monitor by their counterparts on the Basel Committee. The opaqueness and complexity inherent in the A-IRB approach will pose significant problems for effective monitoring under any circumstances, but these problems might have at least been mitigated through institutional oversight mechanisms of some sort. However, the revised accord itself does not create any such mechanisms. Midway through the Basel II negotiations, the committee did create an Accord Implementation Group (AIG), described in greater detail later in this chapter. As its name suggests, the focus of the AIG and its three subgroups has been on implementation challenges. It is possible that the AIG will over time assume a role in monitoring implementation, since there is no clear line between addressing shared implementation challenges and scrutinizing national supervisory implementation. But this is a possibility, not a stated intention of the Basel Committee. Indeed, throughout its history the committee has shied away from anything resembling a process to promote compliance with its products, perhaps because of its firm view that its products are not legally binding.

It is also possible that the Basel Committee countries will derive benefits from the effect of Basel II on bank regulation in noncommittee countries. The approximately 100 non–Basel countries that have adopted Basel I had a variety of reasons for doing so. Noncommittee members of the European Union were bound by the Capital Adequacy Directive implementing Basel I. Many developing countries were urged by the International Monetary Fund (IMF) or World Bank to adopt both the Basel Committee core principles and the capital accord. Countries wanted to demonstrate to markets, foreign counterparties, and foreign supervisors that their banks are subject to the same capital requirements as G-10 country banks. These and similar motivations are also at work in the context of Basel II. Indeed, while the committee did not appear in 1988 to anticipate the extent to which its capital framework would be globally adopted, during the Basel II exercise it explicitly addressed the applicability of the new framework to other countries (Basel Committee 2004d).[11] The Financial Stability Institute (2006) has reported that 82 non–Basel Committee countries intend to implement Basel II in one form or another.[12]

One benefit potentially accruing to Basel Committee countries from broader application of Basel II is the extension of the same safety and soundness effects to be obtained from adoption by the G-10 themselves—reduced risk that banks from other countries that are counterparties to their own banks will transmit banking problems internationally (as well as the associated competitive equality effects). Even where a country's banks are not highly active internationally, their increased stability would help the G-10 countries avoid the potential foreign and economic policy reversals that could result from a foreign banking crisis.

Despite these possible benefits, there is reason to doubt they will be extensive. In fact, there is some reason to believe that, with respect to some developing countries, adoption of Basel II might reduce rather than increase the safety and soundness of their banking systems. The questions raised earlier about the appropriateness of Basel II for Basel Committee country banks are more serious even for noncommittee countries with reasonably advanced banking systems and regulatory capacities. Without even the imperfect monitoring opportunities afforded within the Basel Committee, oversight of a country's implementation of the revised capital adequacy framework will be limited to other international institutions,[13] rating agencies, and markets. Although these actors may be able to provide some useful monitoring of fairly straightforward capital rules, such as those contained in the standardized approach, it is unlikely that they could penetrate the process by which an A-IRB approach would be validated and operated.

The benefits of widespread nominal adoption of Basel II become even more clouded in the context of many emerging market and developing countries. Even the standardized approach was developed by the Basel

11. See also Jaime Caruana, "Overview of Basel II and its reflections on Financial Stability," remarks to the International Conference on Financial Stability and Implications of Basel II, Istanbul, May 16, 2005.

12. According to the results of a survey conducted by the Financial Stability Institute (2006), were the then-prevailing plans of these countries to be realized, more banking assets in those countries would be covered by the foundational IRB approach than by the standardized approach. Although only about 15 percent of banking assets in those countries would be covered by the A-IRB approach, there is considerable regional variation in regulatory intentions. In Latin America, for example, regulators report their intention to bring nearly a third of banking assets under the A-IRB approach in the next decade.

13. The most important of these is the IMF, which now regularly comments on financial regulation as part of its periodic reviews of its member states. However, the IMF does not pretend to conduct the kind of inquiry that would be necessary to monitor the thoroughness with which capital adequacy rules—particularly complicated ones—are implemented.

Committee with reference to banks from the G-10 countries. Powell (2004) identifies several provisions within the standardized approach that do not reflect the characteristics of banks in developing countries. For example, the basic indicator approach for operational risk requires a capital set-aside of 15 percent of gross income. As Powell points out, however, gross income for developing-country banks tends to be higher than in roughly comparable banks from Basel Committee countries. At a more basic level, Powell questions whether the standardized approach is an improvement over Basel I for many developing countries, where external ratings are simply not applicable to most lending. The reduced risk weighting of mortgages thought appropriate for most developed countries is questionable in the legal environments of many developing countries.

In a later study, Majnoni and Powell (2006) suggest that the IRB curves, based as they are on the credit portfolios of Basel Committee country banks, are probably calibrated incorrectly for most developing countries. The factors noted by Powell in his earlier paper are relevant to this conclusion. In addition, though, because the correlations among default risks are typically higher in an emerging market or developing economy than in a developed economy, the authors find that the formulas will not yield the same level of protection in the former as in the latter.

The point that the Basel II approaches may be poor fits for bank regulatory systems in much of the world is underscored in a paper by Bank for International Settlements staff examining implementation of Basel II in Asia. Hohl, McGuire, and Remolona (2006) report that Asian countries are eager to adopt and quickly implement Basel II. This impulse arises in part from an aim shared with the Basel Committee regulators—that is, the expectation that Basel II will drive advances in bank risk management. But it also arises in part from political pressures to give banks in those countries the same advantages of reduced capital requirements that are expected in Basel Committee countries. Based on their understanding of bank and regulatory behavior, the authors question the efficacy of relying on pillar 2 to deal with systemic and other risks. Historical patterns of herding in lending practices make systemic risk more endogenous than in European countries, for example, a tendency exacerbated by the usual procyclicality of capital flows into the region. The authors cite the relative passivity of many bank regulators in these countries as a reason to doubt that supervisors will force banks to assess and respond to systemic risks on their own.[14]

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14. Indirect support for some of these concerns may, ironically, be found in a speech by Y.K. Choi, the deputy chief executive of the Hong Kong Monetary Authority, who points out that many Asian banks lack the internal resources necessary to develop and validate a rating system and that Asian supervisors are even less prepared than their G-10 counterparts to oversee implementation of the IRB approach. See Y.K. Choi, "Basel II Implementation in Asia," introductory remarks at the BCBS/FSI/EMEAP, Hong Kong, October 17, 2007.

Barth, Caprio, and Levine (2006) broaden the critique of the appropriateness of Basel II approaches worldwide into a suggestion that the emphases in Basel II may actually be counterproductive in many countries. Drawing on an extensive World Bank database of bank regulatory practices in more than 150 countries, they note the absence of robust evidence linking higher capital standards to greater bank stability, thus raising questions about the utility of pillar 1 in many national banking systems. They criticize more directly the application of pillar 2 in many countries. That may seem surprising on its face, since pillar 2 can be summarized as counseling strengthened official supervision. But they argue that, outside of countries with well-developed political systems of checks and balances, increased supervisory powers will tend to impede the flow of funds to creditworthy firms and lead to greater corruption in bank lending (Barth, Caprio, and Levine 2006, 311). Instead, they argue, bank regulation in many developing countries should be *more* reliant on market discipline than in countries with established and accountable administrative traditions and capacities.[15] This argument, if borne out by additional research and analysis, would call into serious question the benefits of applying Basel II in a considerable portion of the world.

Competitive Equality

Despite the origins of Basel I in a drive for competitive equality by US and UK regulators and the extent of subsequent attention to the issue, the relationship between capital requirements and competitiveness is not well understood. On the one hand, it is axiomatic that every additional dollar added to a capital buffer entails a foregone opportunity to lend that dollar and earn interest on it. Thus, the higher capital holdings restrict the bank's revenue-producing activities. Also, as suggested in the preceding section, lower capital requirements in one country may allow internationally active banks in that country to earn supracompetitive returns relative to banks subject to more stringent capital requirements. On the other hand, as was frequently pointed out during the debate on Basel II implementation in the United States, in the decade preceding issuance of the revised framework, US banks were among the best capitalized and most profitable in the

15. The Barth, Caprio, and Levine argument is supported by a study of the utility of the Basel Core Principles for Effective Banking Supervision in developing countries. Demirgüç Kunt, Detragiache, and Tressel (2006) find that countries that require regular and accurate reports of their financial data to regulators and market participants have sounder banks. They recommend, accordingly, that priority in implementing the core principles be given to their information provisions. Implicitly, this recommendation downgrades the importance of what has been termed the "supervisory model" of bank regulation, which calls for extensive, iterative, non-rule-based involvement by supervisors in bank practices.

world. One reason may be that higher capital levels signal strength to counterparties, which consequently may be willing to extend funds to the bank at a lower risk premium. Higher regulatory capital requirements may similarly signal to counterparties that a bank's supervisors are more likely to prevent the bank from encountering liquidity or solvency problems.

In short, the effects of higher or lower capital requirements on bank profitability likely depend on a variety of circumstance-specific factors. Naturally, if one country significantly reduces capital requirements while holding constant all other relevant factors, including the safety net that bank counterparties and investors believe the government maintains, then that country's banks will gain a competitive advantage relative to the status quo ante. This is one reason why the prospect that the IRB approaches may significantly lower capital requirements has prompted non–Basel Committee countries to adopt Basel II and why large US banks were so concerned when the implementation process in the United States fell so far behind that in the European Union. But the probability of this outcome says nothing about the degree to which equalizing capital regulation rules will equalize the ultimate competitive positions of banks from different countries. Here, perhaps, the most that can be determined is the relative effect of different capital regimes.

It is difficult to make the case that Basel II will, on the whole, further the goal of competitive equality to a greater degree than Basel I. In itself, this fact is not a criticism of Basel II. If the impact on competitive equality is roughly, or arguably, about the same under the two capital regulation regimes, then the Basel Committee supervisors will have protected their political flanks and freed themselves to reap whatever rewards Basel II may yield on effective prudential regulation and international regulatory cooperation. The problem is that the structure and dynamic of Basel II have themselves provoked sustained attention to the competitive implications of, and opportunities presented by, the new rules. The resulting pressures on national regulators to promote the competitive positions of their own banks may undermine to some degree whatever prudential and cooperative benefits might otherwise be realized.

As noted in chapter 3, efforts to isolate the effects that Basel I has actually had on competitive equality have at best been inconclusive (Jackson et al. 1999). Scott and Iwahara (1994), though making a good case for skepticism that much leveling had been achieved by Basel I, argue more through inference from existing information than from data directly examining the effects of the international arrangement. Still, their arguments should give pause to those who would place too much emphasis on the competitive equality effects of international capital standards.

Recall that the shared US and UK aim in Basel I was to counteract the generous de facto safety nets provided by the Japanese and French governments, which led investors and counterparties to be comfortable with lower levels of capital in those nations' banks. Yet the maintenance of unusually tight safety nets could lower the capital costs of banks by providing this additional assurance, even if the amounts of capital held by banks with similar assets were effectively equalized. In that case, a competitive advantage would persist. Moreover, national differences in tax or accounting systems could confer significant competitive advantage even if the cost of bank capital were roughly equalized. Finally, national supervisory discretion under Basel I created opportunities for regulatory forbearance in pursuit of national competitive advantage.

In an interesting, though hardly dispositive, study of the impact of national factors other than banking regulation on banks' competitive positions, Zimmer and McCauley (1991) found that there was indeed considerable divergence in the cost of equity for banks in six mature economies (Canada, Germany, Japan, Switzerland, the United Kingdom, and the United States). However, this divergence seemed generally to parallel the significant differences in the cost of equity capital for all firms within those countries. Obviously, this was just one study and, at that, a study predating implementation of Basel I. Still, it does suggest that other national characteristics, including home country investment bias, may outweigh the stringency of capital requirements in determining a bank's cost of capital.

In sum, it is difficult to get beyond informed guesses as to how much Basel I has leveled conditions of competition among banks in different countries, much less to determine how Basel II would fare on this point. As noted above, though, if the effect cannot be gauged in absolute terms, one can at least ask whether Basel II is likely to increase the leveling effect of capital standards relative to Basel I. Here again the picture is murky. There are some reasons to believe that the new rules will make competitive conditions more equal but also significant reasons to believe that they will not.

One reason to believe that international harmonization of capital standards could play a more important role in leveling the competitive playing field rests on the possibility that other determinants of a bank's cost of capital may have become less internationally divergent than in the late 1980s. For example, since home country bias among investors is widely believed to have diminished (though by no means disappeared) over the past 20 years, a contemporary version of the Zimmer and McCauley study would presumably reveal smaller national differences in the cost of equity capital for all firms. Were longstanding efforts to develop accepted international accounting standards to succeed, another source of national difference might decline in importance. However, there has been no apparent convergence in other bank regulatory requirements or tax policy during the intervening period. On the critical question of the effect of perceived government safety nets on bank counterparty behavior, there is little evidence of convergence among the Basel Committee countries.

Even if changes in private investment preferences and accounting policy have made divergent patterns of capital regulation a greater source of competitive inequality (and thus agreement on regulatory convergence a route to more competitive equality), these exogenous factors apply to the potential impact of *any* capital regulation. These secular changes do not give grounds for believing that Basel II will have a greater or lesser leveling effect than other specific capital rules. There *is* an argument that if it works as hoped, Basel II would lead to more efficient competition among banks—whatever their nationality—as banks' regulatory costs for holding particular assets more closely approximate their economic costs. The extensive detail of Basel II seems due in part to an effort by some national supervisors to achieve greater levels of competitive equality. But this effect on inter*bank* competition is essentially irrelevant to differences in *national* policies, such as the impact of extraordinary government safety nets or tax and accounting policies. Thus, unless there is some reason to believe that the convergence of regulatory and economic capital costs will have a disproportionately nation-specific impact, this convergence will do little to level the competitive playing field internationally.

Despite its attention to detail, significant national differences affecting capital ratio determinations are inherent in the A-IRB approach. For example, the definition of "default," which is obviously crucial to a calculation of the probability of default, varies significantly among Basel Committee countries. Accounting definitions of general reserves and usual bank practices with respect to recognition of loan impairment also vary across countries.[16] More generally, the dozens of issues left to national supervisory discretion by the revised framework mean that, even in formal terms, significantly different capital "rules" may be applied to banks in different countries.[17] In addition, ambiguous or incomplete provisions will require guidance to banks from national supervisors, creating another source of difference in the rules. One notable example cited by Jackson (2006) arises from the fact that banks have only a few years of data for many of the models that they will be using to calculate their internal ratings. Thus, statistical inferences to be drawn from this data will be of limited reliability, increasing the need for judgment by both banks and supervisors as to whether the outputs generated by models constructed with limited data are actually plausible.

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16. The existence of these differences was one reason why the Basel Committee had proposed taking account of expected losses, as well as unexpected losses, in the risk-weighting formulas. As mentioned previously, the committee revised its proposal in October 2003 to exclude expected losses from the computation. As a result, the differences noted in the text may again be relevant. For a broader survey of differences in national banking regulation, see Barth, Caprio, and Nolle (2004).

17. The Basel Committee (2004d, 28–36) identifies more than 60 areas in which national discretion may be exercised.

It is, of course, impossible to say at the outset of the implementation process how significant national variance in interpretation will be for the levels of capital required by similarly situated banks. In many instances, these variations might be quite sensible for safety and soundness purposes, given the different financial and supervisory contexts in which banks based in different nations operate. In other words, some sacrifice of uniformity might be worth the gains for safety and soundness regulation. Indeed, variations in capital regulation may in theory compensate for differences in the actual or perceived safety net afforded banks by governments. However, the extent of national discretion and the opaque quality of the IRB calculations breed countless opportunities for the exercise of regulatory discretion in pursuit of national competitive advantage, as well as for sound prudential reasons.

Shirking or opportunism is possible under Basel I, of course. Supervisors may, for example, permit banks to maintain on their balance sheets at historic value assets that should be written off, with resulting charges to capital. Yet the very simplicity of the Basel I rules means that an outsider can generally derive a good part of an institution's capital requirement from the bank's own accounting statements. And even where supervisory neglect or forbearance allows misleading capital ratio reporting, the limited number of openings for distortion sometimes allows outsiders to see through the reported numbers. Few outside observers, much less other members of the Basel Committee, believed that Japanese banks were as well capitalized over the last decade as their reported ratios showed. As the Japanese banking crisis worsened and the Japanese economy stagnated, this forbearance looked progressively less like an effort to gain international competitive advantage and more like regulatory paralysis.

With an A-IRB approach in place, opportunistic forbearance will be harder to detect, certainly in noncrisis situations. It is useful to recall here the point made earlier in this chapter that a strong argument for a harmonized international capital standard is that it establishes a formal system of collective self-restraint by national bank supervisors. This argument is premised on the dual assumption that supervisors seek a policy outcome that protects the safety and soundness of their banks but that they are regularly subject to pressures, both internally and externally generated, to relax regulation for the competitive advantage of a country's banks. To be effective, then, the harmonized standard should limit the openings through which these pressures can be readily accommodated. For this reason, the substantial monitoring difficulties inherent in the A-IRB approach are also relevant to competitive equality effects. As noted earlier, domestic regulatory assessment of a bank's internal ratings will be a challenge to monitor even with access to relevant records. Detecting a failure by national regulators to correct a bank's flawed ratings will be more difficult still. The complexity and opaqueness of the A-IRB approach thus threaten to undermine one of the key roles of an international capital standard.

Neither the limited evaluation of the impact of Basel I on competitive equality nor the differences between Basel I and the A-IRB approach of Basel II suggest that the latter will be effective in leveling the terms of competition among internationally active banks. What the Basel II exercise *has* done is to provoke a debate on competitive equality that has, predictably, led to arguments that national regulators should not implement Basel-plus safety and soundness regulations because of their deleterious effects on the international competitive position of a country's banks.[18] In sum, rather than at least marginally promoting competitive equality, Basel II may undermine this end by fostering nationalistic opportunism. As this book is being completed, the Basel Committee supervisors have largely closed ranks in the face of serious questions about Basel II that have arisen in the wake of the subprime mortgage and securitization problems that poured forth in the summer of 2007. Once these problems are resolved, one can expect national competitive pressures to assume again the role they played in shaping Basel II itself.

Cooperative Supervision of Multinational Banks

Another potential benefit of the internationalization of capital standards in Basel II is the enhancement of supervisory cooperation among national bank regulators. Although obviously related to the overall aim of ensuring the safety and soundness of internationally active banks, increasing cooperation in the supervisory *process* is distinct from increasing cooperation through agreement on regulatory rules. The creation in 1974 of what is now known as the Basel Committee was motivated principally by the perceived need among national regulators for greater cooperation in the supervision of internationally active banks. For over a decade, efforts to close supervisory gaps between home country regulation of a bank and host country regulation of that bank's overseas establishments comprised

18. An example of this line of argument by large US banks comes from Jim Garnett in a statement on behalf of the Financial Services Roundtable to the Subcommittee on Financial Institutions and Consumer Credit of the Committee on Financial Services, US House of Representatives, September 14, 2006. For a sympathetic reaction from a regulator suggesting a willingness to trim these Basel-plus measures, see Ben S. Bernanke, "Bank Regulation and Supervision: Balancing Benefits and Costs," remarks before the Annual Convention of the American Bankers Association, Phoenix, Arizona, October 16, 2006. Notwithstanding the sympathetic hearing Chairman Bernanke was willing to give the banks, in the end he agreed to most of the Basel-plus measures included in the proposed rule making. Indeed, word-of-mouth reports circulating through the Washington grapevine suggested that he had played a key role in forging the July 2007 compromise among the regulatory agencies.

the principal work of the committee.[19] Those efforts remain an integral part of the committee's work today. In fact, prior to the Basel II process, many national supervisors who participated in Basel Committee meetings would probably have said that its most important function was to promote the exchange of views on common problems in supervising internationally active banks and, in the process, to build trust among national banking regulators.

Basel II, unlike the 1988 capital accord, tries to achieve a measure of harmonization in the supervisory process, as well as in substantive capital standards. To a considerable extent, this effort is necessitated by the substantive terms of the revised framework. The sheer complexity of an IRB approach poses technical and resource demands for each national regulatory agency. The opaqueness of the IRB process central to the establishment of minimum levels of regulatory capital requires close and competent supervision of each bank's risk assessment systems. Thus, the nature of national supervisory processes has become a matter of concern to the entire Basel Committee, precisely because those processes must be of high quality if the aims of pillar 1 are to be met. For this reason, pillar 2 of the revised framework sets forth the committee's expectations for supervisory oversight of the regulatory capital requirements of pillar 1 for credit and operational risk, including the validation of bank compliance with the minimum standards and disclosure requirements of the IRB methods. Pillar 2 also establishes expectations for supervisory review of risks not covered by the pillar 1 rules.[20]

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19. The adverse effects of the failure of Bankhaus Herstatt on counterparty banks in the United States (and on foreign exchange markets more generally) underscored the potential dangers of these supervisory gaps. The first report of the new committee set out proposed guidelines for cooperation in the supervision of banks' foreign operations (Committee on Banking Regulation and Supervisory Practices 1975). These guidelines were formalized in what became known as the Basel Concordat (Committee on Banking Regulation and Supervisory Practices 1983b), which was later supplemented with guidelines on information sharing among regulators (Basel Committee 1990b). The failure of Bank of Commerce and Credit International revealed continued gaps in the supervision of international banks and, to some extent, a failure by Basel Committee members to abide by the terms of the existing guidelines. The result was a renewed commitment to cooperation, as the committee attempted to introduce a greater sense of obligation by specifying that certain of the existing guidelines were to be "reformulated as minimum standards . . . which G-10 supervisory authorities expect each other to observe" (Basel Committee 1992b).

20. The revised framework specifies (1) credit and operational risk that might not be captured under pillar 1 such as credit concentration, (2) risks not covered by pillar 1, such as interest rate and business risk, and (3) risks external to the bank, such as business-cycle effects (Basel Committee 2006g, paragraph 724). Thus, pillar 2 is used as a kind of catch-all to compensate for the limitations of the pillar 1 rules that arise either from an inability of the Basel Committee members to agree on an approach or to a judgment that supervisory discretion is preferable to a rule in dealing with a specific kind of risk. The relegation of interest rate risk to pillar 2 seems particularly unfortunate. A good case can be made that it can be more readily quantified than operational risk.

The IRB approaches of Basel II also compelled the committee to establish new forms of international cooperation among national supervisors. The relationship between home and host supervisors has been an enduring subject of Basel Committee activity, both because of concerns about regulatory gaps in overseeing multinational banks and because the countries in which such banks do business may have conflicting interests. Capital regulation under Basel I could have occasioned some conflicts of this sort, such as where a host country wants branches of foreign banks to maintain a certain level of capital, despite their not being separate corporate entities. While the 1983 Basel Concordat explicitly permitted this practice, the availability under Basel II of three acceptable methods for a bank's capital calculation raises the possibility of conflicting interests in a new form. For example, there may be circumstances where a large multinational bank adopts—on a consolidated basis and with home country approval—the A-IRB method but a host state wants the bank's local subsidiary to use the standardized method.[21]

Thus the call for international cooperation in pillar 2 (Basel Committee 2004d, paragraphs 780–783) is in the first instance a matter of dealing with complications created by the revised framework itself. But there may also be advantages derived from the increased attention to supervisory process and international cooperation foreseen under Basel II. There are three ways in which these efforts might enhance international cooperation so as to improve the effectiveness of international bank supervision:

- First, by extending upwards to the holding company level the requirement that capital standards be applied on a consolidated basis to internationally active banks, Basel II may fill an important regulatory gap.
- Second, Basel Committee officials have contended that the IRB approaches have created a common language by which advanced risk measurement standards are transformed into "truly workable and comprehensive standards" that enable supervisors to communicate about risks more effectively with banks and with one another (Himino 2004). This benefit, a byproduct of the broader Basel II goal of achieving greater convergence between bank risk and regulatory capital requirements, is an extension to the sphere of international

21. As Scott (2006) points out, this problem may be particularly acute for operational risk. The Basel Committee (2004d) suggests that "significant" subsidiaries within a holding company should calculate operational risk capital on a stand-alone basis. But since supervisors of subsidiaries not deemed "significant" may regard an allocated portion of the groupwide capital requirement as insufficient or inaccessible, they may not be comfortable with such an arrangement.

cooperation of the benefits of a common regulatory language considered in chapter 5.

- Third, the extensive interaction among national banking supervisors required to refine the common language and to resolve issues raised by the consolidated application requirement may open and deepen channels of supervisory cooperation more generally. The result may be not only more effective cooperation in capital regulation but a kind of spillover benefit for the oversight of the activities and risks of internationally active banks other than credit risk.

The consolidated capital calculation requirement is explained by the committee as intended to eliminate "double gearing," some of which remained undetected despite the application of common capital rules in Basel I (Basel Committee 2006g, paragraph 21).[22] The consolidated application requirement furthers one aim of the Basel Concordat—ensuring that a bank's operations in multiple countries does not produce regulatory gaps. In this case the gap arises from the failure of regulators in different countries to realize that the same capital is being attributed to a bank in one country and an affiliated financial company in another country.

In Basel I, the committee had identified double gearing between a bank and its subsidiaries as a potential problem and thus had required that its minimum ratios be met at the *parent bank* level, consolidating the capital and liabilities of all bank subsidiaries. Basel II raises this requirement to the holding company level and specifies that banking subsidiaries should also meet capital standards on a stand-alone basis. In its first consultative paper, the committee explained this change as a response to the growth of complex bank ownership structures and the increasing expansion of banks into securities and insurance activities (Basel Committee, 1999b, 21) Although the committee did not give any examples of specific problems, it must surely have had in mind the situation of

22. The problem of "double gearing" is explained in a paper drafted by the Joint Forum on Financial Conglomerates (1999, 8), in which the Basel Committee participated: "Double gearing occurs whenever one entity holds regulatory capital issued by another entity within the same group and the issuer is allowed to count the capital in its own balance sheet. In that situation, external capital of the group is geared up twice; first by the parent, and then a second time by the dependant. Multiple gearing occurs when the dependant in the previous instance itself downstreams regulatory capital to a third-tier entity, and the parent's externally generated capital is geared up a third time. . . . The principal issue raised by double or multiple gearing is not the ownership structure as such (although some structures may also raise broader supervisory concerns), but the consequences of that structure for the assessment of a financial conglomerate's group-wide capital. When double or multiple gearing is present, assessments of group capital that are based on measures of solo capital are likely to overstate the external capital of the group."

Japanese banks, which cross-held notes and loans with friendly companies (Fukao 2003, 8).[23]

Uniform implementation of this extended consolidation requirement will be useful in plugging a potential gap in oversight of a banking firm's capital position. However, the consolidation requirement can apply, and double gearing can thereby be curbed, regardless of the nature of the underlying capital rules. US banking regulators imposed a similar consolidation requirement on bank holding companies under the Basel I capital rules. In fact, its application under Basel II will lead to new complications if, for example, some subsidiaries use the standardized version while others use an IRB version. The necessity for this sorting out is an example of the coordination problems that Basel II itself creates—a topic to be addressed later in this section.

As discussed in chapter 5, the putative utility of a common language for communicating about risk exposures depends on both the extent to which the language is truly "common" and the extent to which the elements of this language accurately signify the risks faced by a bank. The questions on both scores expressed in that earlier discussion are more serious in an international context. The numerous opportunities for the exercise of national regulatory discretion in implementing the A-IRB rules further limit the comparability not only of bank capital ratios but also of intermediate data such as the distribution of bank assets across probability-of-default categories. In addition, while one might assume a fair degree of consistency by regulators of any single nation in applying the mandatory elements of the A-IRB rules to its banks, there is little basis for assuming such consistency among the regulators of different nations. If one had to choose between regulation better tailored to the specific circumstances of a country's banking system and greater compatibility among reported capital ratios, the former may be the right choice. But that choice does limit the degree to which the capital ratios of A-IRB banks from different countries can be meaningfully compared.

Creation of a useful common regulatory language also depends on the creation of satisfactory mechanisms for exchanging information and on the range of incentives or disincentives affecting national supervisors. Thus, there is substantial overlap among the factors that will determine the benefits of a common supervisory language and those that will determine whether overall supervisory cooperation will become more effective as a result of Basel II.

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23. The friendly companies in question were often insurance companies. Ironically, in light of this fairly well-documented instance of double gearing, Basel II does not require consolidated treatment of insurance company affiliates. Instead, it requires deductions of bank capital investments in those affiliates and supervisory development of a "group-wide perspective" to guard against double gearing (Basel Committee 2006g, paragraph 30). Given the complexity of the relationships of so many of these entities, this approach may well be sensible. However, it does allow for the continued possibility of some forms of double gearing.

The Basel Committee acknowledged there would be manifold impediments to smooth and harmonized implementation. In December 2001, well before the final revised framework had taken shape, the committee formed the AIG, which was "charged with fostering a significant measure of consistency in the way the new framework is implemented" (Basel Committee 2002a, paragraph 61). In October 2003, again before the revised framework was finalized, the committee published Basel II's "High-Level Principles for the Cross-Border Implementation of the New Accord," which specifically addressed the need for coordination arising from the requirement that the new rules be applied at each level of the banking group (Basel Committee 2003d). (The principles are set forth in box 6.1.) Subsequently, the committee issued more detailed guidance on the discrete topic of information sharing between the supervisors of home and host countries of internationally active banks (Basel Committee 2006b). The AIG currently has subgroups that focus on model validation, operational risk, and trading book activities.

The benefits of the extensive work on implementation—actual, planned, and potential—are difficult to evaluate. Considerable attention and coordination are needed to deal with the possibly differing preferences of home and host countries among the three different approaches for calculating minimum capital. Large international banks will presumably resist outcomes in which host country supervisors require higher capital levels for local subsidiaries than would be required under the A-IRB approach certified by home country supervisors. Even where a parent and all its subsidiaries use the A-IRB approach, for example, there will be a question as to what role host country supervisors will play in validation of the internal ratings model used by a bank. Thus, there is at least the possibility that contacts among supervisors become dominated by the technical challenges created by Basel II, to the subordination or exclusion of more general supervisory cooperation of the sort contemplated in the Basel Concordat.[24] In the worst case, disagreements over the interpretation and implementation of the A-IRB approach could undermine existing levels of trust and cooperation among national regulators.

Analysis of the incentives faced by national regulators also calls into question how effective exchanges of information and coordinated supervision will be. Bielicki and Bednarski (2006) note that a host supervisor of a foreign bank's subsidiary that is systemically important in its market, but only a small part of the bank's overall business, will have a different

24. An early example of this possibility is revealed in a speech by the chairman of the AIG, who noted that differences in the interpretation of key provisions of the A-IRB model—such as implementation of the downturn loss-given-default principles—are already becoming apparent and thus in need of discussion. See Nicholas Le Pan, "Basel II—Assessing Progress to Date and Next Steps," remarks at the 7th Annual Global Association of Risk Professionals, New York, February 28, 2006.

Box 6.1 High-level principles for Basel II implementation

Principle 1: The new accord will not change the legal responsibilities of national supervisors for the regulation of their domestic institutions or the arrangements for consolidated supervision already put in place by the Basel Committee on Banking Supervision.

Principle 2: The home country supervisor is responsible for oversight of the implementation of the new accord for a banking group on a consolidated basis.

Principle 3: Host country supervisors, particularly where banks operate in subsidiary form, have requirements that need to be understood and recognized.

Principle 4: There will need to be enhanced and pragmatic cooperation among supervisors with legitimate interests. The home country supervisor should lead this coordination effort.

Principle 5: Wherever possible, supervisors should avoid performing redundant and uncoordinated approval and validation work in order to reduce the implementation burden on the banks and conserve supervisory resources.

Principle 6: In implementing the new accord, supervisors should communicate the respective roles of home country and host country supervisors as clearly as possible to banking groups with significant cross-border operations in multiple jurisdictions. The home country supervisor would lead this coordination effort in cooperation with the host country supervisors.

Source: Basel Committee (2003d).

set of concerns than the bank's home supervisor. Specifically, they worry that the host supervisors will not have effective access to information on the bank's overall capital position so as to be able to identify nascent problems that might eventually endanger the subsidiary. One might add that, even if the subsidiary's problems are home grown, the capital allocated to that subsidiary may not reflect the bank's systemic importance. Kahn and Santos (2005, 2006) have hypothesized that, even within a single polity, the differences of interest among lenders of last resort, deposit insurers, and independent regulators may give these entities incentives not to share information fully. This possibility is presumably as great, or greater, when supervisors from different countries—with their interests in national competitiveness—are involved. Moreover, purely as a prudential matter, supervisors have a disincentive to disclose fully to their foreign counterparts information that suggests serious problems in a bank. Their quite rational fear is that their counterparts will quietly advise banks from *their* countries to reduce counterparty exposure to the troubled bank, potentially making that bank's problems a self-fulfilling prophecy.

Many such conflicts exist regardless of the degree of harmonization in national capital or other bank regulations. While the complexity engendered by Basel II may exacerbate these conflicts, or distract Basel Committee members from giving adequate attention to other common problems, the Basel II emphasis on supervisory process might have a happier outcome. It is possible that the concerted efforts to coordinate information flows and to achieve consistent treatment of a consolidated bank entity's various subsidiaries may serve as a catalyst for deeper, more effective supervisory cooperation generally.[25] As noted in chapter 3, the committee has never developed particularly robust institutional mechanisms for elaborating and monitoring the implementation of Basel I. The obvious need for ongoing work to assure the consistent implementation of Basel II may lead to more confidence on the part of national supervisors that their counterparts in other committee countries are committed to, and capable of, rigorous oversight of A-IRB banks. Although the opaque and individualized character of bank credit risk–rating systems will at best pose a monitoring problem, substantial advances in the international exchange of information may partially mitigate this problem. The AIG subgroups might over time play a tacit but effective role in monitoring the extent and quality of national implementation of the Basel II capital requirements. Far-reaching and successful cooperation on these issues might, in turn, lead to other cooperative measures to enhance supervision of international banking activities.

It is perhaps telling that even researchers in some Basel Committee member agencies have expressed a measure of skepticism that effective agreements on home/host issues will be put into practice by the committee (Jackson 2006, Santos 2006). The committee has given itself high marks for the progress of its various working groups, both in promoting consistent interpretation and implementation across jurisdictions and in

25. An early example of the potential for this dynamic is provided by the AIG's establishment of a monthly "clearinghouse" conference call to discuss on a more or less real-time basis experience with bank practices regarding downturn loss given default (LGD) for particularly sensitive portfolios like mortgages. As explained by the head of the AIG, this call will "allow supervisors to share experiences regarding LGDs in the applications they are considering, identify and discuss minor LGD implementation issues as they arise, identify any further LGD issues that other groups should address, and share information on what supervisors are telling banks about LGD issues." See Nicholas Le Pan, "Basel II—Assessing Progress to Date and Next Steps," remarks at the 7th Annual Global Association of Risk Professionals, New York, February 28, 2006.

coordinating home/host issues (Basel Committee 2007b). The committee also reports that it is tackling topics that were left out of the Basel II exercise, such as the definition of capital and the supervision of liquidity risk management. While self-reported progress and cooperation are more encouraging than indications of discord would be, it is surely too soon to evaluate whether the more ambitious plans for supervisory coordination in Basel II will ultimately lead to strong implementation at the national level and cooperative patterns at the international level. As proposed in chapter 8, however, some additional international institutional mechanisms could enhance chances that the quality of supervision of internationally active banks will be on net enhanced.

Indirect Benefits

Harmonization of national regulation will often reduce compliance costs of firms with operations in multiple countries. This outcome is obviously advantageous for the firms themselves. It can also be beneficial for society, so long as the net effectiveness of the regulation does not suffer—that is, the expenditure of fewer resources on compliance frees up more for productive activities. For international banks, this would mean more extensions of credit in the economy. Again at the margin, the reduction of the bank's total costs should boost its safety and soundness.

In the case of Basel II, however, these benefits seem unlikely to be realized, at least in the foreseeable future. On the contrary, the cost of compliance with capital standards will increase significantly. In the first place, of course, the IRB approaches will be substantially more expensive to develop, validate, and maintain than current Basel I standards (or the standardized version of Basel II). Moreover, the availability of multiple methods for calculating capital requirements, the opportunities for national supervisory discretion in implementation, and the sheer complexity of the A-IRB approach together suggest that compliance costs for internationally active banks will not be a source of savings.[26]

The evolution of a transparent common language regarding banks' capital positions would be useful to counterparties of, and investors in, large banking institutions. Not only might the disclosures required of banks increase the information about banks available to these other actors, but the standardization of disclosures might also help these actors evaluate the soundness of a bank relative to its international competitors, thereby providing another important data point for lending or investment

26. It is true that agreement on Basel II will keep costs lower than they would be were each country to develop its own incompatible requirements for IRB calculation of capital. But this is not much of a point in Basel II's favor.

decisions. However, for reasons previously discussed, the extent to which these putative benefits will be realized is quite uncertain.

Conclusion

The very origins of the Basel Committee underscore the need for international cooperation in the supervision of internationally active banks. Experience suggests that the cooperative arrangements maintained by the Basel Committee, including exchanges of information, could profitably be strengthened. But, as should now be clear, the nature of, and prospects for, international regulatory cooperation vary with the substantive regulatory model being engrafted in an international arrangement. Nout Wellink, president of the Netherlands Bank and current chair of the Basel Committee, has contended that "Basel II is as much about . . . long-term process, and the beneficial dialogue it has spurred between banks and supervisors, as it is about the more micro-level details of implementation."[27] Wellink's aspiration is consistent with a supple and efficient international process for understanding the risks assumed by internationally active banks and for supervising those banks effectively. However, it is to some degree belied by the Basel II process to date. The emphasis on negotiation over technical details with considerable financial impact, the tendency of national supervisors to negotiate on behalf of their national banks, and the complexity of the resulting A-IRB structure may not easily be transformed into the "flexible framework" foreseen by Wellink. In its own statements on implementation issues, the Basel Committee at times appears torn between flexibility and harmonization. For example, notwithstanding the enthusiasm of some committee officials for a common language, the committee has elsewhere noted that "consistency in implementation is best achieved not through developing top-down rules, but rather by tailoring implementation plans to the unique circumstances of each banking organization and its supervisors" (Basel Committee 2006c). The simultaneous achievement of consistency and customization will obviously create ongoing tension in the committee's work.

The assessment in chapter 5 of Basel II as a regulatory model found reason for doubt that it was either feasible or desirable. The consideration of Basel II as an international arrangement in this chapter suggests that salutary forms of international cooperation in banking supervision may not be well served by efforts to harmonize substantive capital regulation at this level of complexity. These international costs may have

27. See Nout Wellink, "Global Banking Supervision in a Changing Financial Environment," address at the 14th International Conference of Banking Supervisors, Mérida, Mexico, October 4, 2006.

been worth bearing in pursuit of an advantageous domestic regulatory paradigm. Conversely, the costs of a suboptimal domestic paradigm may have been worth sustaining in order to achieve big gains in international cooperation. Yet, except for the chance that the volume of cooperative contacts on Basel II will lead to a qualitative and beneficial change in supervisory oversight of international banks, it seems most likely that the substantive and international institutional drawbacks of Basel II will be mutually reinforcing.