

The Risk-based Capital Agreement: A Further Step towards Policy Convergence

On December 10, 1987, the central banks of the major industrial countries published for comment a framework for assessing the capital adequacy of international banking organizations. The central banks negotiated this agreement as part of a continuing effort to coordinate bank supervisory policies, with the ultimate objective of strengthening the international banking system and alleviating competitive inequities. The convergence process, which has focused on the development of an internationally accepted definition of regulatory capital and a common risk-weighting system, reflects the desire and ability of national bank supervisors to adapt to a changing international financial environment. This article highlights the chief developments in the negotiations that led to the international agreement and explains several of the major issues that had to be resolved in designing the proposed capital standard¹

Background

Over the past decade or so, various events have had a major effect on the business of banking and the nature of competition in the banking industry, both in the United States and abroad. These events include the disintermediation of short-term corporate lending, the transformation of excess international liquidity into loans to less developed countries, substantial growth in products not accounted for on the balance sheet, and technological advancements enabling instantaneous global communications and twenty-four-hour trading. As

a by-product, the business mix in which banks now engage is more diverse, and the risk characteristics of many of the newer financial instruments are more complex than the risks associated with instruments prevalent a decade ago.

In the United States, the effort to develop a risk-based capital measure began in 1985 as a response to the changes in banking activities and an attempt to move U.S. capital standards more closely in line with the standards used in many other industrial countries. Of particular concern in the United States were the rapidly growing risk exposures of certain U.S. banks stemming from off-balance sheet activities. For example, standby letters of credit issued by the 10 largest banking organizations had grown from 7.6 percent of total assets at year-end 1981 to 11.6 percent by mid-year 1985, even as total assets increased. Similarly, the ten largest banks' interest rate swaps, first introduced in 1981, had increased to 14 percent of total assets as of June 30, 1985, based on notional values (which are not directly comparable to asset values). Finally, the same banks' foreign exchange contracts had risen to 105 percent of total assets over this period, again based simply on notional values. None of these activities is systematically factored into existing U.S. capital guidelines, which focus on the level of capital relative to total balance sheet assets. While a multitude of factors have influenced the growth in off-balance sheet activities, the lack of quantitative capital requirements to support these activities most likely had a positive impact on their growth.

Another change in banking risk profiles addressed by the risk-based capital measure relates to balance sheet

¹This article does not provide a detailed analysis of the risk-based capital proposal. For an extensive technical description of the framework, see the recently released *Federal Register* notice on the subject.

activities. By some measures, U.S. banks' investments in relatively low-risk liquid assets had declined during the early 1980s in relation to total assets. The current capital guidelines do not distinguish between higher- and lower-risk assets and thus require banks to hold the same amount of capital against lower-yielding U.S. government securities as against higher-yielding private sector loans. This treatment may have tempered many banks' desires to hold low-risk, relatively liquid assets.

The effort by U.S. bank regulatory authorities to develop a risk-based capital measure also reflected a recognition of the growing divergence between U.S. capital standards and the risk-related capital adequacy measures introduced by other major industrial countries. For example, France introduced a risk-related capital standard in 1979; the Bank of England adopted a formal risk-based approach in 1980; and German capital measures, set out in the Banking Act (as amended in 1985), recognize certain credit risk and interest rate risk distinctions.

Thus, in the summer of 1985, in an attempt to address the growing inadequacies of the existing capital-to-assets guidelines and to bring U.S. capital policies more closely in line with those used in other industrial countries, the three Federal bank supervisory authorities—the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation, and the Federal Reserve—began working together to develop a risk-based capital measure for U.S. banking organizations. In January 1986, the original U.S. proposal was issued for public comment.²

A majority of the comments from banks and other market participants expressed general support—at least in principle—for the original proposal. However, many of the respondents asserted that, without similar requirements for foreign bank competitors, the proposed requirements would put U.S. banks at a competitive disadvantage both at home and abroad, particularly in the area of off-balance sheet products, which generally are not incorporated in capital standards abroad. At a minimum, foreign banks competing in the United States but not subject to comparable minimum capital standards might be able to underprice domestic banks. Concern was also voiced that capital standards applied to commercial and standby letters of credit would force domestic commercial banks to raise their prices relative to the prices charged by foreign bank competitors, eroding the ability of U.S. banks to compete in those markets.

²The first proposal assigned risk weights to assets and certain off-balance sheet activities according to broad gradations of risk. U.S. supervisors envisioned that this risk-weighted measure of exposure would be used as an additional tool in assessing an organization's capital adequacy.

During the summer of 1986, the U.S. supervisory authorities reviewed and revised their capital proposal in light of the comments received from the public and the further analyses pursued as a result of those comments. During the process, however, it became clear that an opportunity to move toward more explicit international convergence of supervisory policies was at hand. The United Kingdom's system of risk-weighting assets was conceptually similar to the U.S. proposal, and the U.K. authorities were in the process of revising their system to incorporate a wider range of off-balance sheet activities. Banking supervisors in both countries felt that, in light of the importance of New York and London as international banking centers, agreement on a single risk-based capital framework to be applied in both the United States and the United Kingdom would indeed represent a major step forward in international convergence.

As a result, in the fall of 1986, the U.S. authorities deferred action on their own proposal to work with the Bank of England on the development of a common approach to assessing capital adequacy. Significantly, this effort required a fundamental rethinking of the appropriate definition of capital, since each country brought its own definition to the negotiations. In fact, an important aspect of the ultimate agreement between the two countries was its two-tiered definition of total capital. "Base capital," consisting of specified capital elements, would be included in the measure of regulatory capital on an unlimited basis, while "limited capital," consisting of other types of capital instruments, would be restricted to the amount of base capital held by a banking organization.

Shortly after negotiations began, the two countries agreed to introduce the credit risk exposures stemming from interest rate and foreign exchange contracts in the capital adequacy framework. During the preceding twelve months or so, the Bank of England had investigated such a step in the course of reviewing and revising its own capital standards. In contrast, U.S. supervisory authorities had begun work on this aspect of risk-based capital only a few months before the bilateral negotiations started. Given the relative complexity of measuring rate contract credit risk, a special task force comprising representatives of the Bank of England, the Federal Reserve and the OCC was established to develop a measure acceptable to both countries.

In January 1987, a modified proposal, the United States/United Kingdom Agreement (U.S./U.K. Agreement), was announced simultaneously in the two countries. However, the task force assigned to address interest rate and foreign exchange contracts had not yet agreed on the appropriate measure of rate contract

credit risk. Consequently, a supplemental agreement on rate contracts was issued somewhat later, in March 1987.

Multilateral convergence efforts

Even as the negotiators were developing the U.S./U.K. Agreement, they were giving consideration to expanding participation to achieve a multilateral agreement. Senior Japanese officials had indicated both publicly and privately their commitment to maintaining and strengthening the financial condition of international banking organizations, in part through increased cooperation among supervisory authorities. Consequently, it seemed possible that a trilateral agreement encompassing the world's three major financial centers might be achievable. Toward that end, the U.S. and U.K. supervisory authorities began discussions in late 1986 with the Japanese banking authorities

When Japan entered the negotiations, the issues surrounding the appropriate definition of regulatory bank capital became even more complicated. Japanese banks maintain sizable unrealized gains on their securities (largely equity) positions, and these unrealized gains have traditionally been realized when necessary to offset losses. The Japanese bank supervisory authorities, in fact, had recently introduced capital guidelines that explicitly recognized these gains—called "hidden reserves"—as a form of capital. Those guidelines defined capital for Japanese-based international banks as equity plus 70 percent of hidden reserves. In contrast, U.S. and U.K. capital standards did not recognize hidden reserves, thus further complicating the task of developing a uniform definition of capital.

During the spring of 1987, after the U.S./U.K. Agreement had been published, the potential scope for convergence expanded once again. At an April meeting, the Cooke Committee, sponsored by the Bank for International Settlements (BIS), took the U.S./U.K. Agreement under consideration and addressed the possibility of expanding the agreement to include all of the countries represented on the committee (the G-10 countries and Luxembourg)³ The Cooke Committee had been working for several years to develop a common measure of capital and, more recently, a risk-based capital model. The agreement reached by two of its members—the

United States and the United Kingdom—and the negotiations being held with a third member—Japan—provided the impetus to accelerate the pace of these deliberations. On December 10, 1987, the outcome of the committee's efforts was published and has become known as the "Basle Agreement."

The issues

While the original U.S. proposal paid relatively little attention to the definition of regulatory bank capital, the definition of capital became an increasingly important issue as the negotiations expanded to include more countries. In fact, the appropriate definition of capital was perhaps the most difficult issue confronted by the Cooke Committee in negotiating the multilateral agreement. Nevertheless, a variety of other issues relating to the appropriate treatment of certain assets and off-balance sheet instruments presented the committee with significant difficulties as well. The most important of these were (1) the extent to which transfer risk distinctions would be incorporated in the capital framework, (2) the types of collateral to be recognized in the proposal, (3) the appropriate treatment of interest rate risk stemming from holdings of government securities, (4) the appropriate treatment of loan commitments, and (5) the measurement of credit risk exposure associated with interest rate and foreign exchange contracts.

Defining capital

At least in hindsight, the complexity of designing an internationally acceptable capital definition is not surprising. Each country involved in the Basle Agreement has its own definition of regulatory capital, and each of these definitions reflects a different set of country-specific accounting practices, banking activities, and supervisory philosophies. Furthermore, a change in the definition of capital can greatly affect measured capital ratios within a banking system and thus alter the market's perception of the financial strength of the banking organizations in that system. Consequently, a key element in achieving the multilateral agreement was to design a definition of capital that would be uniform across countries yet accommodate the many different components of capital as currently defined in the twelve different banking systems.

Reserves. A significant complicating factor in the negotiations was the differential treatment of reserves across countries. The various types of reserves, which differ in their financial and accounting features as well as their ability to absorb losses, had traditionally been viewed as regulatory capital in certain of the member countries. Reserves, including loan loss reserves, hidden reserves, and property revaluation reserves, hold varying degrees of importance in member countries'

³The committee comprises representatives of the central banks and supervisory authorities of the Group of Ten countries (Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, United Kingdom, United States), and Luxembourg. Although its official name is the Committee on Banking Regulations and Supervisory Practices, it is often called the "Cooke Committee," after Peter Cooke of the Bank of England, its current chairman. More recently, the Committee has also been referred to as the "Basle Committee" after Basle, Switzerland, the city in which the BIS is located.

existing capital regulations. For example, although the loan loss reserve is a significant component of regulatory capital for U.S. banks, it is a less important component of capital for Japanese banks.

Efforts to achieve a compromise on the capital definition were influenced by actions taken by major banking organizations during 1987 when large LDC-related provisions were made to loan loss reserves. The banking supervisors represented on the Cooke Committee hold differing views regarding the degree to which these reserves are available to absorb credit losses generally—that is, the degree to which these reserves are “unencumbered.” Conceptually, the loan loss reserve, to be included in regulatory capital, should be unallocated and thus available to absorb anticipated, but as yet unidentified, credit losses. To the extent that reserves are clearly allocated against specific assets, they should not be considered eligible for inclusion in capital. Because of the practical difficulties in defining “unencumbered reserves,” the member countries have agreed to further discussions regarding the extent to which loan loss reserves should be included in capital.

Another type of banking “reserves” not universally recognized by supervisory authorities on the Cooke Committee is hidden reserves. These reserves, which are especially important for Japanese banks, are measured as the difference between the book value (usually cost) and market value of debt and equity securities. As their name suggests, hidden reserves are not disclosed in banks’ financial statements. Consequently, only the home country supervisory authorities and the banks themselves know the size of hidden reserves available to absorb losses. Perhaps more importantly, because the market values of securities fluctuate over time, the current market value of securities may not represent the future realizable value of these securities. For example, Japanese supervisory authorities have recognized the uncertainty of future realizable values by applying a 30 percent discount to hidden reserves and including the remainder in capital. Within the context of the multilateral discussions, however, the appropriate size of the discount to be applied to hidden reserves was the subject of much debate.

A third type of banking reserves, asset revaluation reserves, are also included in bank capital in some countries (most notably the United Kingdom) but not in others. Asset revaluation reserves are generated when a bank revalues certain specified assets—usually real estate—at current market values. The difference between historical and current market values is recorded as a reserve that is part of the bank’s capital. Like the size of hidden reserves, the size of asset revaluation reserves depends on current market values and may not be indicative of future realizable gains.

Other capital instruments. In addition to the variety of reserve accounts included in regulatory capital, various forms of equity and debt instruments qualify as regulatory capital in some, but not all, member countries. These instruments include preferred stock, certain hybrid debt instruments (such as mandatory convertible debt in the United States), and term subordinated debt. The appropriate treatment of these instruments in a multinational definition of capital proved to be difficult to determine, given the disparate nature of the instruments.

First, the characteristics of preferred stock vary widely, even within individual countries. Preferred stock can be issued for limited maturities (limited-life) or in perpetuity (perpetual), and pricing can be fixed or floating. Limited-life preferred can in some countries (for example, France) be redeemed at the issuer’s option. Dividend payments can be deferred in some countries, notably in the United States, but not eliminated altogether. Second, a group of instruments referred to in the proposal as hybrid debt/equity instruments encompasses an even broader range of capital instruments. Generally, eligible hybrid instruments have some characteristics of debt—for example, fixed and regular interest payments—and also some characteristics of equity—for example, interest payments that can be suspended without bringing the banking organization into default. Third, various types of long-term subordinated debt have been included in member countries’ capital definitions provided that the debt meets certain criteria. The types of debt instruments in this category vary by maturity as well as by covenants attached to the debt. For most types of subordinated debt issues, breach of covenants can compel the issuing banks to accelerate repayment, possibly generating or exacerbating bank liquidity pressures.

The proposed definition. Amid this diversity of capital components, only common shareholders’ equity was found to be acceptable as capital by all the bank supervisors on the Cooke Committee. This universal acceptance of common equity served as the foundation for the two-tiered definition of capital ultimately developed by the committee. In the proposed approach, the first tier of capital comprises common shareholders’ equity, and the second tier allows for the inclusion of the wide range of capital components recognized in the twelve countries participating in the agreement. Thus, the Cooke Committee’s definition of capital provides for uniformity across countries through the common equity requirement of tier one, while accommodating country-specific differences in banking traditions and practices through the diversity allowed in tier two.

In the treatment of reserves, the second tier incorporates certain limitations that seek to address the dif-

facilities in measuring the degree to which various forms of reserves are, in reality, available to absorb losses. Hidden reserves arising from unrealized gains on securities are discounted to 45 percent of their current market value and then included in the supplemental tier of capital. In addition, general reserves against credit-related losses, which are allowable in the second tier, are limited to a certain percentage of total risk assets, although organizations are free to maintain reserves in excess of this limitation.

Deductions from capital

In addition to agreeing on a common set of capital instruments eligible for inclusion in total capital, both the U.S./U.K. and Basle proposals suggested that certain assets should be deducted from both the capital base and total risk-adjusted assets. Of particular note with regard to the multilateral negotiations are goodwill and investments in other banks' capital instruments

Goodwill. While goodwill is deducted under both proposals, the Basle framework differs from the U.S./U.K. Agreement in its approach to deductions of other types of intangibles.⁴ First, the bilateral proposal deducted *all* intangibles from the total capital base as then defined, whereas the Basle framework explicitly deducts only unidentifiable intangibles (goodwill) from core capital and total risk-adjusted assets.⁵

In their comments on the U.S./U.K. Agreement, many bankers were critical of the proposed deduction of intangibles. In their opinion, intangible assets have value and should only be deducted on a case-by-case basis. Moreover, some bankers were concerned about the competitive implications of the proposed treatment. Deduction of intangibles, especially goodwill, would in their view place banking organizations at a competitive disadvantage in prospective acquisitions relative to other less-regulated companies.

From a prudential perspective, however, the "realizable" value of goodwill is highly uncertain. In theory, goodwill represents the present value of *expected* future benefits to the buyer—value not reflected in the acquired firm's quantifiable net assets but expected to accrue to the buyer in the future. Consequently, the book value of goodwill does not necessarily reflect any precise economic value that will be realized with certainty. Moreover, since goodwill is purely an estimate of future benefits, the realizable value of goodwill may

⁴Under current Federal Reserve capital guidelines, goodwill is explicitly deducted at the bank level only, not at the bank holding company level. However, tangible capital ratios are considered as part of the overall assessment of capital adequacy.

⁵The Basle framework provides national supervisors some flexibility in the treatment of goodwill during a transitional period, subsequently, existing goodwill must be deducted from capital.

very well fall to zero for financially troubled banking organizations.

The Basle proposal, while maintaining the goodwill deduction, does not explicitly call for exclusion of other intangibles from the capital base. However, the Federal Reserve has frequently stressed the importance of maintaining strong tangible common equity ratios when undertaking expansions and retains for itself the flexibility to deduct identifiable intangibles on a case-by-case basis when assessing expansion proposals.

Holdings of other banking organizations' capital instruments. Bank supervisors in several industrial countries (for example, France and the United Kingdom) currently require the deduction of holdings of other banking organizations' capital instruments, presumably to inhibit artificial increases in banks' capital positions while improving the prospects for drawing new capital into the banking system. The Basle framework does not propose to require such an across-the-board deduction for at least two reasons: 1) to date, such holdings have been widely accepted in certain countries, and 2) many banking organizations in the U.S. hold equity positions in other banks in anticipation of the relaxation of interstate banking laws. Here also, the Basle framework provides for national flexibility in deducting such holdings. The Federal Reserve plans to review such holdings in the examination process and to deduct them from capital when deemed appropriate. Interbank holdings not deducted will receive a "standard" risk weight of 100 percent.

Transfer/country risk

In addition to defining capital, Cooke Committee members had to agree on an approach to the risk-weighting framework. Perhaps the most complex issue regarding assets and off-balance sheet items was whether to incorporate transfer risk distinctions. Transfer risk, or country risk, is the risk of credit losses stemming from the inability of a country and its private sector borrowers to raise the necessary foreign exchange to repay their external debt.

Before the LDC debt servicing problems of the early 1980s, commercial bank and supervisory systems designed to assess credit risk gave little attention to transfer risk. But by 1985, when the U.S. bank supervisory authorities were developing their original risk-based capital proposal, the importance of transfer risk in assessing the risk profiles of major banking organizations had become clear, and U.S. supervisors wanted to include at least some recognition of transfer risk in the measure. For this purpose, the original U.S. proposal divided countries into two groups: the International Monetary Fund's (IMF's) list of industrial market economies and all other countries. Claims on governments

and banks in the former group were afforded lower risk weights. During the subsequent public comment period, the U.S. approach was criticized as being arbitrary, since the IMF list is based on structural development indicators rather than on indicators of debt-servicing ability. Since 1986, other lists of "low risk" countries have been considered—for example, a list consisting of members of the European Community (EC) and the G-10 countries, or a grouping of EC members and members of the Organization for Economic Cooperation and Development. All of the techniques considered for categorizing countries into relative transfer risk groups were fraught with difficulties, both analytical and political.

Some U.S. market participants argued that the relative transfer risk rankings assigned by the Interagency Country Exposure Review Committee (ICERC) should be used to reflect differences in transfer risk in a risk-based capital measure. Although ICERC ratings specifically address transfer risk exposures, they are confidential ratings used only by bank examiners in the United States. The public generally would not have access to the list of ICERC ratings of country debt and therefore would be constrained in their ability to replicate supervisory assessments of capital adequacy. Furthermore, the use of ICERC-type ratings might place unwarranted pressure on the process of assigning transfer risk ratings to country exposures and would require an internationalization of this process that would be, at best, complicated to administer and carry out.

Another approach suggested by some market participants entails grouping countries on the basis of whether they have recently experienced debt-servicing difficulties. This approach also suffers from several problems. First, historical performance on external debt-servicing requirements is not necessarily indicative of future performance. Indeed, some countries appear willing to sustain interest payments as long as possible, even in the face of deteriorating economic conditions. Consequently, countries with good payment records could in fact represent increasing transfer risk. Conversely, this type of grouping might place an official mark of weakness on certain countries, even if their potential debt servicing ability has improved significantly. By categorizing countries based on past performance, the measure could thus overstate or understate the transfer risk of certain countries. Furthermore, a distinction based on recent debt-servicing experience would run counter to the objective of supervisory capital adequacy requirements: to insure the capacity of bank capital to absorb *prospective* losses.

Because country risk assessments depend on qualitative judgments, any discrete grouping of countries in a relatively simple, quantitative capital framework is

bound to be somewhat arbitrary. Recognizing the arbitrariness of these assessments and the political difficulties associated with the supervisory identification of high- and low-risk countries, the Cooke Committee decided to use a relatively simple approach to transfer risk in the published framework.⁶ Although some members of the committee felt that ignoring entirely the material differences in the transfer risk associated with lending to different foreign borrowers might limit the usefulness of the risk-based capital framework, the committee was not able to achieve a consensus on this issue. Still, the absence of country-risk distinctions does not significantly weaken the approach since the proposed risk-adjusted capital measure is envisioned as only one of many analytical tools to be used by both bank supervisors and market analysts.

Finally, it should be noted that the Cooke Committee's effort to develop a risk-based capital measure has paralleled efforts within the EC to develop a similar measure, and that the EC is likely to decide, within the next several years, to treat all claims on EC member governments and banks similar to domestic institutions. Designation of a "domestic zone" comprised solely of EC countries would, of course, introduce an element of inconsistency across industrial countries in the assessment of capital adequacy. For example, under this approach, a French bank would slot a long-term claim on the German government in a lower risk category than would a U.S. bank with a similar claim. Consequently, the Cooke Committee most likely will find it necessary to return to this issue at some point.

Collateral

The Basle agreement's recognition of collateral expands on both the original U.S. proposal and the subsequent U.S./U.K. Agreement. In the original U.S. proposal, only loans to broker/dealers secured by cash, U.S. government and agency securities, or other marketable securities were slotted in a risk category below 100 percent. The U.S./U.K. Agreement broadened the recognition of collateral to all loans collateralized by securities issued by the central government and its agencies. Both domestically and internationally, it was difficult to reach consensus on the degree to which collateral could be reasonably incorporated into the risk-based capital measure.⁷ In theory, the risk-reducing effects of many

⁶The Basle framework generally assigns claims on a bank's home-country central government to a low-risk category, while claims on foreign governments are assigned to the standard risk category, that is, weighted at 100 percent.

⁷The same degree of difficulty was encountered when deciding on the appropriate treatment of guarantees. In the final Basle proposal, recognition of guarantees has been expanded to include not only central government guarantees, but also guarantees of domestic banks, and those of states, counties, and municipalities.

types of collateral could have been incorporated; however, the cost would have been tremendous administrative complexity. Moreover, it would seem inappropriate to include in a general measure of this type forms of collateral that have highly uncertain value (either because of credit or market risks).

Some comments on the first U.S. proposal advocated an even broader recognition of collateral. Most notably, respondents called for a lower risk weighting on one- to four-family residential mortgages. This sentiment was shared by supervisors in Europe who noted that the historical losses on such exposures have been relatively low across most industrial countries. Thus, the multilateral agreement's recognition of collateral is the broadest of any of the three proposals that have been issued for public comment. In the Basle agreement, exposures collateralized by cash, domestic central government debt, and residential mortgages attract risk weights below the standard risk weight of 100 percent.

Although U.S. supervisors have some sympathy for the arguments regarding residential mortgages, they also feel that the nature of protection afforded by residential collateral varies widely across the United States, as experience has shown that real estate values can drop sharply in response to sectoral economic weaknesses. Also, U.S. supervisors are reluctant to favor within this framework one sector of the economy over another. For these reasons, the U.S. version of the risk-based capital proposal diverges from the Basle framework by slotting residential mortgages in the 100 percent risk category. However, although the proposed measure does not explicitly recognize a wider range of collateral, such treatment does not imply that other types of collateral will be ignored in the U.S. examination process or that banks should disregard their own internal collateral requirements.

Interest rate risk: U.S. government securities

Although a banking organization's capital base must be available to absorb all losses beyond credit-related losses, pragmatism restrained the broad inclusion of other banking risks such as foreign exchange risk, liquidity or funding risk, and interest rate risk in the Cooke Committee's measure of capital adequacy. One partial exception is the treatment of interest rate risk on securities that bear no credit risk.

The question whether interest rate risk should be incorporated in the risk-based capital framework was one of the more controversial issues throughout the entire negotiation process. It is not surprising, therefore, that the treatment of securities has undergone substantial change since the U.S. proposal was published in early 1986. That first proposal made a distinction between securities held in banks' investment accounts

and those held in trading accounts, and weighted all trading account assets at 30 percent. Investment account securities were segregated into short-term U.S. Treasuries (zero percent risk weight), long-term U.S. Treasuries and all Federal agency securities (30 percent), and all other investment securities (100 percent).

Respondents to the U.S. bank supervisors' initial request for comment on this issue were generally opposed to the inclusion of interest rate risk in the proposed risk-based capital framework. Many contended that a banking organization's exposure to interest rate fluctuations was a function of the entire range of its assets, liabilities, and off-balance sheet exposures. Moreover, many bankers argued that a relatively simple focus on the dollar amount of U.S. government securities held by banks would not be indicative of the degree of interest rate risk facing those banks. A number of respondents advocated no capital charge for government securities, arguing that the examination process was a more appropriate vehicle for evaluating interest rate exposures.

At the multilateral level, the treatment of interest rate risk stemming from government securities positions was once again challenged. Several members of the Cooke Committee argued that the proposed treatment might not accurately reflect a banking organization's interest rate risk profile. Some national supervisors contended that, although the inclusion of interest rate risk might be desirable, any incorporation of this risk should be postponed until more refined approaches could be developed. Thus, the multinational agreement provides national supervisory authorities with the flexibility to apply low risk weights (10 or 20 percent) to securities issued by the domestic central government to reflect the "investment risk" associated with holding these securities, or to apply a zero risk weighting to these securities, thereby excluding them from the risk-asset measure.

In the Federal Reserve's proposal, short-term (91 days or less remaining maturity) U.S. government and agency securities are assigned to the zero percent category, while a 10 percent weight is attached to all other U.S. government and agency securities.⁸ The three U.S. Federal bank supervisors are committed, however, to undertaking further research on a more comprehensive supervisory approach to measuring interest rate risk that might be incorporated in the Basle framework at some later date.

Loan commitments

The debate over how to incorporate unused lending commitments in a risk-based capital framework also

⁸U.S. government-sponsored agency securities are slotted in the 20 percent risk category

began with the issuance of the original U.S. proposal in which most commercial and consumer commitments were effectively converted to balance sheet equivalent amounts at 30 percent of their notional principal values. The major issues raised in the letters commenting on this proposal and the subsequent U.S./U.K. Agreement included the proposed use of original maturity in determining conversion factors, the degree of protection against loss provided by "material adverse change" (MAC) clauses, and the appropriateness of incorporating consumer commitments in this framework.

While the U.S. proposal did not include a maturity distinction, the U.S./U.K. Agreement assigned credit conversion factors based on the original maturity of the commitment, that is, the length of time before a bank can, at its option, unconditionally cancel its commitment to the borrower. This approach was intended to be a proxy for the risks associated with various types of commitments. The industry criticized this approach, arguing that it was arbitrary and would not accurately reflect banks' credit exposures on these commitments. Many commented that, if a maturity approach was to be used, remaining maturity was a better indicator of credit risk. In fact, U.S. bankers maintained that remaining maturity is widely used in internal reports and that the focus on original maturity would represent a significant reporting burden.

Despite these criticisms, some members of the Cooke Committee strongly supported the use of original maturity. They viewed this relatively simple technique as a useful means of distinguishing among a variety of instrument types within the context of the proposal without increasing the complexity of the calculation. Thus, in the end, the use of original maturity was retained in the Basle framework.

The U.S./U.K. Agreement also addressed the issue of MAC clauses by explicitly including commitments with such clauses in the risk asset framework. Although many of the comment letters expressed the view that these clauses provided effective protection against deterioration in the creditworthiness of a prospective borrower, contrasting arguments prevailed in favor of excluding consideration of MAC clauses from this framework.

MAC clauses are generally more effective under conditions of rapid deterioration in the credit quality of an obligor than in other situations. In cases of more gradual decline in the customer's financial condition, the criteria contained in MAC clauses might be insufficiently specific to afford the lender any significant degree of protection. Furthermore, a borrower is likely to anticipate his own problems before the lender becomes aware of them, by which time the drawdown could have occurred.

Even in situations where MAC clauses are adequately

worded to allow protection, banks may nonetheless be reluctant to exercise their right to deny lending. Refusing to lend funds in any but the most extreme cases might damage other customers' perceptions of both the bank and the value of their own credit lines. Bank managements may also be concerned about their potential exposure to lender liability suits.

The treatment of consumer loan commitments has varied widely among the three versions of the risk-based capital framework. Such commitments were not explicitly addressed in the original U.S. proposal, and the proposal's lack of specificity in this regard raised questions by market participants. The U.S./U.K. Agreement clarified the issue by explicitly including consumer loan commitments and applying the same credit conversion factors to these commitments as to other loan commitments. This proposed treatment of consumer commitments in turn evoked strong criticism, especially from banking organizations competing heavily in the consumer credit card market. These bankers argued that many types of consumer commitments (for example, credit card lines and overdraft facilities) are unconditionally cancelable at any time, for any reason, and therefore do not require capital support. Partly in response to this argument, the Basle framework treats consumer commitments as short-term commitments.

Interest rate and foreign exchange contracts

The original U.S. proposal did not include interest rate and foreign exchange contracts (rate contracts) in its measure of risk-adjusted assets. These rate contracts clearly expose banks to credit risk, but by late 1985, U.S. bank regulators had not yet developed a practical way to incorporate a measure of this risk in the risk-based capital framework.

The March 1987 supplement to the U.S./U.K. Agreement, which set out an approach to measuring rate contract credit exposure, proposed two measures: one for interest rate contracts and one for foreign exchange contracts. Both measures consisted of the current market value of contracts and an "add-on" factor intended to capture future potential credit risk exposure.

The comments received by the Federal Reserve on the supplemental proposal offered general support for the basic approach to measuring rate contract credit exposure but were often critical of many of the specifics of the proposal. In particular, most of the market participants commenting on the proposal argued that the amount of capital that banks would have to hold to support rate contracts would be excessive. Market participants provided detailed analyses of the underlying methodology used by the regulators to calculate the proposed add-on factors. In virtually every case, these analyses concluded that specific aspects of the regu-

lators' methodology produced overly conservative estimates of the degree of credit risk exposure stemming from rate contracts.

Further, a number of commercial and investment bankers argued that the proposed risk weightings to be applied to rate contract credit exposure were too high. These bankers asserted that the counterparties to interest rate and foreign exchange contracts are, on average, more creditworthy than bank customers more generally. Consequently, they argued, it would not be reasonable to assign the same risk weight to rate contract credit exposure as that assigned to, say, a bank's loan portfolio credit exposure.

In the context of the multilateral discussions on the appropriate measure for rate contract credit risk, several of the European members of the Cooke Committee contended that the proposed U.S./U.K. approach was unduly complex, especially for banks with relatively minor involvement in these activities. Furthermore, a minority of the committee members did not favor the use of a mark-to-market approach for determining capital requirements on rate contracts.

Reflecting these divergent views, the Cooke Committee was not able to agree on a single measure of rate contract credit exposure that could be used by all member countries. Ultimately, a compromise was reached allowing each member country to use one or both of two approximately equivalent measures of credit exposure.

The first of these proposed measures, the "current exposure" measure, retains the basic structure of the original measure, which combined current market exposure and an add-on for future potential exposure. This measure was developed by refining the original U.S./U.K. methodology to incorporate suggestions made by market participants and by simplifying the measure in response to the general feeling that the original proposal was too complex.

The alternative measure proposed in the Basle agreement was based on "original exposure." It was developed to provide an even simpler measure of credit exposure that would still result in approximately the same amount of required capital as the current exposure approach for similar rate contract portfolios. Using the original exposure approach, a bank would not have to mark its rate contracts to market. Instead, the notional principal amounts of a bank's rate contracts would be multiplied by specified conversion factors to calculate an estimate of its credit exposure.

The Cooke Committee proposed that, regardless of the approach used,⁹ credit exposure on rate contracts would be assigned a risk weight based on the broad categories of obligors used elsewhere in the proposed

capital framework. However, most committee members believe that a maximum risk weight of 50 percent should be used because of the relatively high quality of rate contract counterparties.

Going forward

Most of the issues that the Cooke Committee confronted were replete with technical, analytical, and political complexities. In addressing each issue, members of the committee had to weigh several competing factors. Simplicity in approach had to be balanced against precise risk measurement. More generally, the desire for a broad-based agreement that would strengthen the international banking system had to be weighed against country-specific practices and policies. In the end, the agreement on risk-based capital encompasses a considerable range of banking activities and sets uniform minimum target capital ratios for all banking organizations active in international financial markets.

In reaching the Basle Agreement, the banking authorities in the participating countries had to make significant compromises. Each member of the committee had to strike a balance between achieving the goal of a "more level playing field" through more uniform global supervision of banking organizations' capital levels on the one hand, and accommodating country-specific institutional structures on the other. For this reason, the proposal embodies a number of compromises that, taken in isolation, may not be optimal. But viewed within the broader context of an international agreement that encompasses the major industrial countries, these compromises reflect the desire of the international supervisory community to overcome national differences and to respond in a coordinated fashion to the changing international banking environment. In this context, the agreement represents a milestone in international bank supervisory cooperation.

Convergence is not, however, a discrete set of events consisting of major multinational agreements; rather, convergence is an ongoing process involving dialogue and the sharing of information among the various supervisors of financial institutions. In the United States, the increasingly ambiguous division between banking organizations and other financial services firms is providing a steady impetus to the domestic supervisory communication and convergence process. Moreover, the changing nature of the global financial services industry will necessitate continuing cooperation among the national supervisory authorities that together regulate the global financial marketplace. Significantly, the negotiation of the risk-based capital agreement may provide a model for this ongoing effort towards supervisory policy convergence.

Jeffrey Bardos

⁹U.S. bank supervisors are proposing to use the "current exposure" approach