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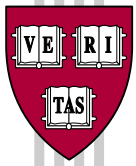

G-24 Discussion Paper Series

The Basle Committee's Proposals for Revised Capital Standards: Rationale, Design and Possible Incidence

Andrew Cornford

No. 3, May 2000

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PREFACE

The *G-24 Discussion Paper Series* is a collection of research papers prepared under the UNCTAD Project of Technical Support to the Intergovernmental Group of Twenty-Four on International Monetary Affairs (G-24). The G-24 was established in 1971 with a view to increasing the analytical capacity and the negotiating strength of the developing countries in discussions and negotiations in the international financial institutions. The G-24 is the only formal developing-country grouping within the IMF and the World Bank. Its meetings are open to all developing countries.

The G-24 Project, which is administered by UNCTAD's Macroeconomic and Development Policies Branch, aims at enhancing the understanding of policy makers in developing countries of the complex issues in the international monetary and financial system, and at raising the awareness outside developing countries of the need to introduce a development dimension into the discussion of international financial and institutional reform.

The research carried out under the project is coordinated by Professor Dani Rodrik, John F. Kennedy School of Government, Harvard University. The research papers are discussed among experts and policy makers at the meetings of the G-24 Technical Group, and provide inputs to the meetings of the G-24 Ministers and Deputies in their preparations for negotiations and discussions in the framework of the IMF's International Monetary and Financial Committee (formerly Interim Committee) and the Joint IMF/IBRD Development Committee, as well as in other forums. Previously, the research papers for the G-24 were published by UNCTAD in the collection *International Monetary and Financial Issues for the 1990s.* Between 1992 and 1999 more than 80 papers were published in 11 volumes of this collection, covering a wide range of monetary and financial issues of major interest to developing countries. Since the beginning of 2000 the studies are published jointly by UNCTAD and the Center for International Development at Harvard University in the *G-24 Discussion Paper Series.*

The Project of Technical Support to the G-24 receives generous financial support from the International Development Research Centre of Canada and the Governments of Denmark and the Netherlands, as well as contributions from the countries participating in the meetings of the G-24.

THE BASLE COMMITTEE'S PROPOSALS FOR REVISED CAPITAL STANDARDS: RATIONALE, DESIGN AND POSSIBLE INCIDENCE

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United Nations Conference on Trade and Development, Geneva

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Abstract

The Basle Capital Accord of 1988 was the outcome of an initiative to develop more internationally uniform prudential standards for the capital required for banks' credit risks. The objectives of the Accord were not only to strengthen the international banking system but also to promote convergence of national capital standards, thus removing competitive inequalities among banks resulting from differences on this front. The key features of this Accord were a common measure of qualifying capital, a common framework for the valuation of bank assets in accordance with their associated credit risks (including those classified as off-balance-sheet), and a minimum level of capital determined by a ratio of 8 per cent of qualifying capital to aggregate risk-weighted assets.

The 1988 Basle Agreement was designed to apply to the internationally active banks of member countries of the Basle Committee on Banking Supervision but its impact was rapidly felt more widely and by 1999 it formed part of the regime of prudential regulation not only for international but also for strictly domestic banks in more than 100 countries.

From its inception the 1988 Basle Accord was the subject of criticisms directed at features such as its failure to make adequate allowance for the degree of reduction in risk exposure achievable through diversification, at the possibility that it would lead banks to restrict their lending, and at its arbitrary and undiscriminating calibration of certain credit risks. In the aftermath of the East Asian crisis other issues of special interest to developing countries also became a focus of attention: firstly, the Accord's effectiveness in contributing to financial stability in developing countries; and, secondly, the incentives which the Accord was capable of providing to short-term interbank lending, a significant element of the volatile capital movements perceived as having contributed to the crisis.

The eventual response of the Basle Committee to the belief in the need for an overhaul of the framework of the 1988 Accord was its proposal of June 1999 for a New Framework for Capital Adequacy (henceforth New Framework) incorporating three main elements or "pillars": minimum capital rules based on weights intended to be more closely connected to economic risk than those of the 1988 Accord, supervisory review of capital adequacy in accordance with specified qualitative principles, and market discipline based on the provision of reliable and timely information. However, the rules of the 1988 Accord may have a continuing practical relevance since a version modified in certain ways (such as the inclusion of more stringent criteria for the short-term interbank loans qualifying for a low risk weight) may be included in the Basle Committee's revised proposals owing to disagreements expressed during the consultation process over the proposals concerning numerical standards for capital adequacy in the New Framework.

The New Framework contains two basic approaches to such numerical standards for capital adequacy, the standardized and the internal-ratings based approaches. A feature of the standardized approach is the contentious proposal for recourse to the ratings of credit rating agencies in setting weights for credit risk. Moreover, owing to technical difficulties the Basle

Committee's proposal regarding the internal-rating based approach is still somewhat tentative and likely to be applied only to large banks with sophisticated systems for handling credit risk.

An issue of special interest to developing countries in the context of initiatives for reform of the international financial system regarding the second and third "pillars" of the New Framework is their likely incorporation in criteria for surveillance of compliance with the Core Principles of Effective Banking Supervision. In both cases this incorporation may be a source of considerable difficulties: in the case of the second "pillar" owing to the problems of formulating effective guidelines for the surveillance of different dimensions of banks' capital adequacy; and in the case of the third "pillar" owing to possible obstacles to the implementation improved transparency for banks hitherto subject to lax standards in this area.

The most contentious of the New Framework's proposals is that for recourse to the ratings of credit rating agencies in setting weights for credit risk. The paper reviews evidence suggesting that the recourse to the ratings of credit rating agencies for setting risk weights may actually exacerbate fluctuations in the cost and availability of external financing for developing countries. This would be an unfortunate outcome in the context of the New Framework's potential contribution to greater international financial stability, since a major part of this contribution would be in the form of the improved procedures for pricing and allocating bank loans which the framework is intended to foster.

The Basle Committee's progression from being a source of regulatory initiatives directed at internationally active banks of its member countries to its current role as a global standards setter has raised questions concerning its representativeness – questions which are particularly understandable in relation to rules regarding capital adequacy that are a linchpin of regimes for prudential supervision. Here the paper proposes an approach involving an extension of procedures already used for its work by the Basle Committee.

Various implications of long-term trends in the control and regulation of banking risks are highlighted by the proposals of the New Framework. Changes in this area are taking place at different rates in different countries, complicating the task of global standard setting especially with regard to the objective of a reasonable degree of uniformity (and thus of contributing to a "level playing field"). The changes are also increasing the skills required for banking supervision and are leading to the introduction of new activities and operations by banks for many of which supervisory capacity, especially in most developing countries, is not yet prepared. Appropriate policy responses to some of these changes are fairly straightforward in principle, though not necessarily easy to implement in practice: for example, countries can license banks to engage only in activities which they have the capacity to supervise. Solutions are more difficult, and thinking is in many respects more preliminary, concerning the challenge posed to the establishment of globally uniform standards by the heterogeneity of the set of banks to which such standards must be applied, and concerning the problems posed for effective banking supervision by the growing complexity of banking operations.

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THE BASLE COMMITTEE'S PROPOSALS FOR REVISED CAPITAL STANDARDS: RATIONALE, DESIGN AND POSSIBLE INCIDENCE*

Andrew Cornford

I. Introduction

The Basle Capital Accord of 1988 (BCBS, 1988a) [1] was the outcome of a long drawn-out initiative to develop more internationally uniform prudential standards for the capital required for banks' credit risks. The objectives of the Accord were not only to strengthen the international banking system but also to promote convergence of national capital standards, thus removing competitive inequalities among banks resulting from differences on this front. The key features of this Accord were a common measure of qualifying capital, a common framework for the valuation of bank assets in accordance with their associated credit risks[2] (including those classified as off-balance-sheet), and a minimum level of capital determined by a ratio of 8 per cent of qualifying capital to aggregate risk-weighted assets. In the following years a series of amendments and interpretations were issued concerning various parts of the Accord: these extended the definition and purview of qualifying capital, recognized the reductions in risk exposure which could be achieved by bilateral netting[3] meeting certain conditions, interpreted the Accord's application to multilateral netting schemes, allowed for the effects on risk exposure of collateralization with securities issued by selected OECD public-sector entities, and reduced the risk weights for exposures to regulated securities firms. Simultaneously, the Basle Committee continued its work on other banking risks of which the main practical outcome so far was the amendment of the 1988 Accord to cover market risk[4] adopted in 1996.

The 1988 Basle Agreement was not a legal document. It was designed to apply to the internationally active banks of member countries of the Basle Committee on Banking Supervision,[5] but the form of its implementation was left to national discretion. Thus, in some countries implementation required changes in the legal framework of banking regulation, whilst in others it was achieved on the basis of supervisory authorities' powers to issue binding guidelines without the need for changes in the law (BCBS, 1990: 10). Moreover, the way in which the Accord's minimum ratio of 8 per cent was incorporated in regulatory regimes varied among countries, and several applied a more stringent standard. The impact of the Accord was rapidly felt more widely and by 1999 it formed part of the regime of prudential regulation not only for international but also for strictly domestic banks in more than 100 countries (BCBS, 1999a: 19).

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* The author is grateful for the comments of Yilmaz Akyüz.

From its inception the 1988 Basle Accord was the subject of much criticism, an outcome which was hardly surprising for an agreement which had to accommodate banking practices and regulatory regimes that diverged in important respects owing to differences in legal systems, business norms and prevalent institutional forms. Such criticisms were directed at its failure to make adequate allowance for the degree of reduction in risk exposure achievable through diversification, at the possibility that the Accord would lead banks to restrict their lending (particularly if the new capital requirements were introduced in deflationary conditions characterized by downward pressure on their profits), and at its arbitrary and undiscriminating calibration of certain credit risks. The last of these features was a source of particularly persistent criticism: for example, on the one hand, the zero weight attributed to the debt of OECD governments was felt to be a powerful incentive to banks to increase their holdings of such securities; and, on the other hand, the uniform weight attributed in almost all circumstances to private borrowers (regardless of their creditworthiness) was considered an incentive to regulatory arbitrage under which banks were tempted to exploit the opportunities afforded by the Accord's classification of risk exposure to increase their holdings of higher-yielding but also higher-risk assets for a given level of regulatory capital. The eventual response of the Basle Committee to the belief in the need for an overhaul of the framework of the 1988 Accord was its proposal of June 1999 for a *New Capital Adequacy Framework* (henceforth New Framework) for capital adequacy (BCBS, 1999a) incorporating three main elements or "pillars": minimum capital rules based on weights intended to be more closely connected to economic risk than those of the 1988 Accord, supervisory review of capital adequacy in accordance with specified qualitative principles, and market discipline based on the provision of reliable and timely information.

Section II of the paper is devoted to the nuts and bolts of the 1988 Accord. These nuts and bolts are important to an understanding of the Accord's perceived shortcomings and thus of the changes in the Basle Committee's proposed New Framework. Moreover, owing to disagreements over the New Framework expressed during the consultation process, the rules of the 1988 Accord, modified in certain ways such as the inclusion of more stringent criteria for the short-term interbank loans qualifying for a low risk weight, are now quite likely to be one of the options included in the Basle Committee's revised proposals. Section III discusses the way in which the rules of the 1988 Accord were eventually adopted much more widely than was initially envisaged by its framers, paying special attention to the role in this process of the EEC/EU regime for banking and to licensing procedures for foreign banks as part of the growing internationalization of financial services. Section IV reviews the criticisms of the 1988 Accord to which the New Framework for capital adequacy is a response. Of these three involved issues of special concern to developing countries. The first of these issues was the Accord's system of weights for sovereign risk whose arbitrary calibration was felt by some developing countries to give inadequate recognition to their creditworthiness. The second and third issues, which were a focus of special attention during the aftermath of the East Asian crisis, were the Accord's effectiveness in contributing to financial stability in developing countries whose regulatory regimes, on paper at least, included rules based on the 1988 Accord, and the incentives which the Accord was capable of providing to short-term interbank lending, a significant element of the volatile capital movements perceived as having contributed to the crisis.

Section V is mainly devoted to the contents of the New Framework: the two basic approaches to numerical standards for capital adequacy (the standardized and the internal-ratings based approaches), and the second and third "pillars" (supervisory review and market discipline). Under the standardized approach the discussion looks in some detail at the contentious proposal for recourse to the ratings of credit rating agencies in setting weights for credit risk. The somewhat tentative nature of the Basle Committee's proposal regarding the internal-rating based approach is noted. Under the second and third "pillars" of the New Framework there is some discussion of problems likely to be posed by their incorporation in criteria for surveillance of compliance with the Core Principles of Effective Banking Supervision, an issue of special interest to developing countries in the context of initiatives for reform of the international financial system. The final topic taken up in section V is the currently rapid pace of innovation in methods for managing credit risk, a consequence of which is likely to be further revisions in the not too distant future of any New Framework for capital adequacy.

Section VI discusses selected issues either directly raised by the Basle Committee's proposals or likely to become increasingly important as part of the evolving framework for financial regulation and supervision of which new rules for capital adequacy will be a major building-block. Firstly, it reviews

evidence suggesting that the recourse to the ratings of credit rating agencies for setting risk weights may exacerbate fluctuations in the cost and availability of external financing for developing countries. This would be an unfortunate outcome in the context of the New Framework's contribution to greater international financial stability, since a major part of this contribution would be in the form of the improved procedures for pricing and allocating bank loans which the framework is intended to foster. Secondly, section VI looks at arguments for broader participation in the process of global standard setting for banking regulation and proposes an approach involving an extension of procedures already used for its work by the Basle Committee. Thirdly, the section looks at some implications of long-term trends in the control and regulation of banking risks highlighted by the proposals of the New Framework. Changes in this area are taking place at different rates in different countries, complicating the task of global standard setting especially with regard to the objective of a reasonable degree of uniformity (and thus of contributing to a "level playing field"). The changes are also increasing the skills required for banking supervision and are leading to the introduction of new activities and operations by banks for many of which supervisory capacity, especially in most developing countries, is not yet prepared.

II. The 1988 Capital Accord: major features and review

A. Capital

The 1988 Accord reflected a consensus of the member countries of the Basle Committee on Banking Supervision as to the proportions in which different suitable financial instruments should be permitted to be part of banks' capital bases, given the objectives of being available to support an institution in times of crisis and of contributing to funding its business.[6] Three basic categories of capital can serve these purposes to varying degrees: equity capital, debt capital and hybrid capital (the third of which combines features of the other two). Of the three debt capital is the least well suited to fulfil these objectives since most forms carry fixed funding costs whose suspension constitutes a breach of the terms of the debt contract, and cease to be available in the event of insolvency. By contrast hybrid capital such as preference shares and subordinated debt has funding costs that may be suspended in certain conditions, thus providing a layer of protection for other, senior creditors. Such forms of capital, however, like other forms of debt, generally cease to be available in the event of insolvency (even though their holders' claims on a bank's assets are subordinated to those of other, senior creditors). In the case of equity capital, although many forms exist, the investment is locked in if insolvency occurs. The problem of achieving consensus as to the categories qualifying for inclusion in capital as defined for the 1988 Accord was due to significant divergences in market and regulatory practices among member countries of the Basle Committee as well as the number of actual instruments to be considered for possible inclusion in the three basic forms of capital.[7]

The solution adopted for the 1988 Accord involved distinguishing between two Tiers of capital. Tier 1 consists of items qualifying as pure or "core capital", namely equity shares or common stock, perpetual non-cumulative preference shares,[8] and disclosed reserves. Tier 2, which comprises less pure forms of capital, may include the following items (a measure of discretion being left in many cases to national regulators): undisclosed reserves (subject to the condition that they are freely available to meet unforeseen losses); asset revaluation reserves (which may reflect periodic revaluation of fixed assets and which, in the case of latent revaluation reserves, must be prudently valued to reflect the possibility of price volatility or forced sale, a discount of 55 per cent being applied for this reason to the difference between current market value and historic cost); general provisions or loan-loss reserves held against future unidentified losses and freely available to meet such losses as they materialize; hybrid (debt/equity) securities subject to such conditions as being unsecured, subordinated, and carrying interest obligations which allow for deferral in the event of the issuer being unable to pay (even though the obligations are not waived as in the case of non-cumulative preference shares mentioned above); and various types of subordinate term debt (subject to amortisation at a rate of 20 per cent a year during the last five years before maturity to reflect its diminishing value as capital).

Tier-2 elements in the aggregate are limited to a maximum of 100 per cent of those in Tier 1, i.e. to one half of total capital;[9] and there are additional lower ceilings for individual Tier-2 elements. Goodwill[10] is subtracted from Tier-1 capital, and investments in unconsolidated financial firms (as well as possibly all investments in such firms at the discretion of national regulators) are subtracted from total capital. Under the Accord by the end of 1992 qualifying

capital was to constitute 8 per cent of banks' risk-weighted assets.

B. Risk-weighted assets

Measurement of banks' exposure for the purpose of estimating the denominator of the 8-per-cent ratio was based on the attribution to defined asset classes of weights reflecting their credit risk. Off-balance-sheet exposures were converted to their credit risk equivalents by the multiplication of nominal principal amounts by factors specified for this purpose, the results then being weighted according to the counterparty as in the case of on-balance-sheet exposures.

With the omission of certain details the attribution of risk weights can be described as follows:

(i) *0 per cent:* (a) cash and (subject to certain conditions) gold bullion; (b) claims on central governments and central banks denominated and funded in national currency; (c) other claims on OECD central governments and central banks; and (d) claims collateralized by cash or securities issued by OECD governments, or guaranteed by OECD governments;[11]

(ii) *0, 10, 20 or 50 per cent (at national discretion)*: claims on domestic public-sector entities and loans guaranteed by such entities;

(iii) *20 per cent*: (a) claims on multilateral development banks,[12] and claims guaranteed or collateralized by securities issued by such banks; (b) claims on banks incorporated in the OECD and loans guaranteed by such banks; (c) claims on banks incorporated in non-OECD countries with a residual maturity of up to one year, and loans with this maturity guaranteed by such banks; (d) claims on non-domestic OECD public-sector entities, and loans guaranteed by such entities; and (e) cash items in the process of collection;

(iv) *50 per cent*: loans fully secured by a mortgage on residential property;

(v) *100 per cent*: other claims, assets, and investments, including claims on the private sector not otherwise specified, on banks incorporated outside the OECD with a residual maturity of over one year, on non-OECD central governments (unless denominated and funded in local national currency – see earlier), and on publicly owned commercial companies, as well as investments in commercial real estate and in capital instruments issued by other banks (unless deducted from capital as specified in section II.A).

The term, "OECD country", is used in a somewhat special way for the purpose of this classification. Initially it covered not only full members of the OECD but also countries which had concluded special arrangements with the IMF in connection with its General Arrangements to Borrow, in other words at that time Saudi Arabia. But with the expansion of the OECD from 1994 onwards to include some emerging-market and transition economies the term, "OECD country", for the purpose of the Accord was redefined to include the additional condition of not having rescheduled external sovereign debt within the previous five years (BCBS, 1994: 74, 78).

The Basle Committee divided off-balance-sheet exposures into five broad categories:

(i) substitutes for loans carrying a conversion factor of 100 per cent such as general guarantees of indebtedness, bank acceptances and standby letters of credit serving as financial guarantees for loans and securities;

(ii) certain transaction-related contingencies carrying a conversion factor of 50 per cent such as performance bonds where the risk of loss relates as much to the performance of the transaction as to the financial risk of the counterparty;

(iii) short-term, self-liquidating trade-related contingent liabilities carrying a conversion factor of 20 per cent (such as documentary credits collateralized by the underlying shipment as in the case of finance provided on the security of a bill of lading);

(iv) commitments such as standby commitments and credit lines with an original maturity exceeding one year carrying a conversion factor of 50 per cent (short-term commitments and those which can be cancelled at any time receiving a zero weight); and

(v) interest-rate and exchange-rate related items, agreement on whose credit-risk equivalents proved more difficult and which require slightly more extended discussion.

The underlying rationale of the Accord's treatment of items under (v) (such as forwards, futures,

swaps and options) is that banks' exposure to credit risk here is only to the cost of replacing the contract in the event of default by a counterparty. Since a bank is under a general obligation to manage its business in a prudent manner, it should maintain a matched book of over-the-counter (OTC) derivative contracts designed to avoid or minimize risk exposures due to asymmetries in contracts' terms. Thus, the theoretical basis for estimating the credit risk of such contracts is the behaviour of matched pairs under alternative assumptions about volatility. The Basle Committee was not able to obtain unanimity as between two alternative methods for such estimates. The first (the current exposure method) was based on an assessment of the current market value of replacement cost plus an add-on factor intended to take account of future exposure: replacement cost is positive only if the contract is "in the money" (that is if the present value of the contract implies that the bank will be the recipient of net receipts), and is zero otherwise;[13] and the add-on factor depends on the maturity and the category of the contract, longer maturities being subject to a higher factor than shorter ones and exchange-rate contracts to a higher factor than interest-rate ones.[14] The alternative option (the original exposure method), which ceased to be available after the adoption of the amendment to the 1988 Accord to cover market risk, involved not an estimate of the current replacement value of a contract but rather the application of conversion factors designed to reflect potential future exposure on a slightly more conservative basis. The credit equivalents so calculated for interest-rate and exchange-rate contracts are then risk-weighted according to the counterparty as in the case of other exposures except that only a 50-per-cent weight is applied to those which would otherwise attract a 100-per-cent weight since counterparties in the markets for interest-rate and exchange-rate contracts tend to be first-class names.[15]

III. The 1988 Accord and other regimes and jurisdictions

As mentioned in section I, the 1988 Basle Accord has come to serve as a model for prudential standards regarding the minimum levels of capital required for credit risk far more widely than solely for the internationally active banks[16] of the member countries of the Basle Committee on Banking Supervision itself. There are several reasons for this more extended application. Firstly, the work of the Basle Committee was closely parallelled by analogous efforts in the EEC/EU. Secondly, the supervisors in other OECD countries readily accepted the incorporation of frameworks following the lines of the 1988 Accord into their own prudential regimes, and this tendency soon spread to non-OECD jurisdictions, a process aided by the Basle Committee's proselytizing of other supervisors and supervisory groups. Finally, an additional fillip was provided by the internationalization of banking: increasingly the granting of market access to foreign banks has become conditional on the standards attained by the regulatory regimes in their home countries, standards for which the rules enunciated by the Basle Committee (as well as those of the EEC/EU banking regime in the case of entrants to the EEC/EU market) are mostly accepted as a model.

A. The EEC/EU regime

The principal EEC directives which cover the same ground as the 1988 Capital Accord are the Own Funds Directive[17] (which defines items qualifying as banks' capital for regulatory purposes) and the Solvency Ratio Directive[18] (which provides the rules for estimating banks' risk-weighted exposure). Unsurprisingly, in view of the fact that the Basle Committee included representatives of seven member states of the EEC, the rules of the 1988 Accord and of these two Directives are very similar. However, there are divergences, many of which reflect the differing objectives of the two regimes: the Basle Committee is concerned principally with stability and efficiency in cross-border banking, while the aim of the EEC/EU is to establish the regulatory framework for the banking sector of a single market.[19] Thus, the EEC/EU regime was never designed only for internationally active banks but for all credit institutions[20] covered by its remit, whether or not they were engaged in cross-border business. For example, there is greater emphasis in the Owns Funds Directive than in the 1988 Accord on national regulatory discretion regarding items qualifying for inclusion in capital so long as they meet specified conditions (Article 3 of the Directive); the Directive specifically lays down rules for credit institutions set up as co-operative societies (Article 4(1));[21] and, owing to the still provisional character of EEC/EU's regime for consolidated supervision at the time of the adoption of the Directive, member states were also accorded greater discretion as to the accounting methods for estimating banks' capital than under the 1988 Accord which specifies that it is to be applied to banks on a consolidated basis.

B. Other developed countries

In view of the overlapping of memberships of the Basle Committee on Banking Supervision, the EEC/EU and the OECD it is scarcely surprising that prudential standards for bank capital along the lines of the 1988 Accord were adopted throughout most of the OECD. But although the general framework of its incorporation in regulatory regimes even in countries which are members neither of the Basle Committee nor of the EEC/EU follows the Accord, detailed features of the rules adopted sometimes differ in ways intended better to reflect the position of local banks, while none the less observing the Accord's general spirit. In the case of Australia,[22] for example, there are a number of differences between the risk-weighting of on-balance-sheet assets and that prescribed by the Accord. For example, the zero-per-cent weighting applies only to cash, gold bullion, balances with the Reserve Bank of Australia, and claims collateralized by cash and Commonwealth government money-market securities with a maturity of up to 12 months (as well as claims collateralized by such securities); claims on other OECD governments and central banks and on non-OECD governments and banks, if denominated and funded in local currency, are attributed a 10-per-cent weighting; and the Reserve Bank of Australia has the right to agree to the application of a 20-per-cent weighting to all claims on certain specified non-OECD banks incorporated in the Asia-Pacific area (a right exercised by the early 1990s, for example, in favour of the Hongkong and Shanghai Banking Corporation, the Overseas-Chinese Banking Corporation, Overseas Union Bank Limited, and the Development Bank of Singapore).

C. Developing countries

During the last decade the capital standards of the 1988 Accord have also been widely incorporated into the regimes of banking regulation of non-OECD countries. Emulation has doubtless played a role here as have the efforts of the Basle Committee to promote its regulatory standards through its contacts with supervisors throughout the world.[23] Also important has been the growing internationalization of banking, since the granting of market access to foreign banks has increasingly become subject to host countries' insistence on the observance of satisfactory regulatory standards in these banks' parent or home countries. For example, the Foreign Bank Supervision Enhancement Act of the United States enacted in 1991[24] imposed as a mandatory standard for the establishment by a foreign bank of a branch, agency or commercial-lending-company subsidiary that the foreign bank be subject to comprehensive supervision or regulation on a consolidated basis in its home country. Among the criteria to be applied in consideration of the quality of the bank's home-country supervision is whether this supervision includes the evaluation of prudential standards on a worldwide basis, for example, for capital adequacy and risk-asset exposure.

Under the regime of the EEC/EU subsidiaries of foreign banks (including those of non-OECD countries) incorporated in a member state according to the provisions of the single banking licence (the so-called European passport) can carry out throughout the EEC/EU activities covered by their original licence but are of course subject to all the provisions of the EEC/EU regime including the Own Funds and Solvency Ratio Directives. This regime leaves to discretion of member states the regulation of branches of non-EEC/EU banks, including their initial authorization. Without conducting an examination of the banking regimes in all member states it can be assumed that such branches enjoy no special exemptions under national laws since Article 9 of the EEC's First Banking Directive of December 1977[25] specifies that member states are not to "apply to branches of credit institutions having their head office outside the Community ... provisions which result in more favourable treatment than that accorded to branches of credit institutions having their head office in the Community". Moreover, although the minimum standards enunciated by the Basle Committee in June 1992 for the supervision of international banking groups and their cross-border establishments were directed at supervisory standards generally[26] and not at those for the prudential capital required for credit risk, in practice implementation of these standards will generally entail evaluation by the supervisor of the host country of the capital requirements applied by the regulator in the home country of the bank applying for market access.

However, the practical impact of adoption of Basle capital standards depends on the way in which they are implemented, and this in turn will reflect not only the quality of a country's banking supervision but also its accounting standards and other norms and standards of the way in which its banking sector conducts its business.[27] Recent experience in developing and transition economies, including that of the financial crisis in East Asia, has pointed to major shortcomings here, although capital standards for

banks' credit risk based on the 1988 Accord have frequently been in force.[28] At the best of times the capital requirements of this Accord were designed to be minimum standards for handling credit risk. Financial crises point not only to the frequent inadequacy of these minimum levels in times of serious stress but also to the interaction and mutual exacerbation of different banking risks (especially of market and credit risks) during such periods. Moreover, they bring out the complementary character of the essential building-blocks of effective banking regulation and supervision: for example, the usefulness of capital requirements (which are intended to protect a bank from unexpected losses) will be reduced by the absence of adequate loan-loss reserves (which are intended to protect it from expected loss levels); the effectiveness of both capital requirements and loan-loss reserves depends on standards of financial reporting, accounting and auditing; the lack of precision inherent in any attempt to measure liquidation values for many of the items on banks' balance sheets is made worse by the lack of established insolvency procedures; and so on. The links between the different prerequisites for effective banking supervision are an essential part of the Basle Committee's 1997 statement, *Core Principles for Effective Banking Supervision* (BCBS, 1997a). One of the objectives of this initiative is that the *Core Principles* should provide an additional fillip to the spread of prudential standards earlier enunciated by the Basle Committee as elements of a more fully fleshed out overall framework for banking supervision.[29]

IV. The 1988 Capital Accord: further development and perceived shortcomings

A. Other work on banking risks in relation to the 1988 Capital Accord

As mentioned in section I, in the years after 1988 the Capital Accord was the subject of amendments intended to refine and extend its treatment of banks' exposure to credit risk and the list of instruments eligible for inclusion in required capital. At the same time the Basle Committee continued its work on other banking risks. So far, only with regard to market risk has this work resulted in a further major agreement on prudential standards, the 1996 *Amendment to the Capital Accord to Incorporate Market Risk* (BCBS, 1996b). This Amendment is based on a distinction between a bank's trading book, on the one hand, that is its "proprietary positions in financial instruments ... intentionally held for short-term resale and/or ... taken on by the bank with the intention of benefiting in the short-term from actual and/or expected differences between their buying and selling prices, or from other price or interest-rate variations, and positions in financial instruments arising from matched principal brokering and market making, or positions taken in order to hedge other elements of the trading book",[30] and its other assets and off-balance-sheet exposures, on the other hand, which are often described as its banking book. The Amendment accommodates two alternative ways of measuring minimum levels of capital for market risk, one based on banks' own internal risk-management models and the other on a standardized methodology under which capital requirements are estimated separately for different categories of market risk[31] and then summed to give an overall capital charge (as in the 1988 Accord).

The acceptance of banks' use of proprietary in-house models for measuring market risk can be considered as an important manifestation of the trend in the conceptual approach to banking supervision away from reliance on compliance with numerical standards towards greater concern with more qualitative ones involving such concepts as good governance, sound risk management and effective procedures for auditing and internal control.[32] Thus, the Amendment lays down not only quantitative standards for the measurement of value at risk, i.e. the maximum loss estimated at a particular level of confidence, which could be generated by a bank's trading book during a specified period, but also standards for stress-testing procedures for a bank's internal models and for the risk-management systems of which the models are a part. The more quantitative of these standards refer to the key parameters of the measurement process (and not to numerical benchmarks calculated directly from accounting data), whilst the others refer to more qualitative dimensions of banks' management and operations. Whilst the state of the art regarding the measurement of credit risk has not yet attained levels commanding the same confidence as for the measurement of market risk (as described in section V.D), supervisory reliance on risk estimates generated by banks' internal models and the associated vetting of the systems of management and internal control supporting them are likely in future to become increasingly widespread features of regulatory regimes.

The work of the Basle Committee on other banking risks has included statements on credit-concentration risk (BCBS, 1991a), interest-rate risk

(BCBS, 1993, 1997b), liquidity risk (BCBS, 1992b), and operational risk (BCBS, 1989, 1998c) in addition to several on banks' internal controls which support all their risk-management functions.[33] Credit-concentration risk is that due to large exposures to single counterparties or groups of related counterparties. Interest-rate risk covers all exposures due to changes in interest-rates: many of these exposures are due to mismatches between interest rates on, and the maturities of, assets and liabilities but they also overlap market risk for investments in fixed-rate debt owing to the price effects on such investments of changes in interest rates. Liquidity risk is that involving a bank's ability to meet its obligations as they become due: it overlaps interest-rate risk in the event that the bank's illiquidity results from its inability to pay the high rates at which alone borrowing is possible, and with market risk to the extent that this inability is linked to the need to sell assets at sharply reduced ("forced-sale") prices. Operational risk arises out of day-to-day operations: it may be due to fraud, for example, or to risks associated with technology (which has grown increasingly complex with banks' dependence on computers and telecommunications). All these risks are potentially capable of being translated into credit risk owing to their unfavourable effects on banks' profits and losses but are none the less treated separately in discussion of financial regulation. The objectives of the Basle Committee's statements in these areas have been to clarify issues and to set standards for banks' managers and banking supervisors rather than to establish agreed supervisory rules of the kind contained in the Capital Accord.

B. The perceived shortcomings of the 1988 Accord

From the time when it was agreed the 1988 Capital Accord has been criticized for various shortcomings, some of them almost inevitable outcomes of the negotiating process necessary for the achievement of such an agreement. Presumably partly in response to the insistence of these criticisms, the Basle Committee established a working group to review evidence on the Accord's impact (BCBS, 1999b). The proposals for a revised framework of June 1999 reflected the acceptance that changes in banks' management of their credit risks since the late 1980s and extended experience of the Accord indicated the need for its overhaul in key respects. Much of the early criticism centred on the failure of the 1988 Accord to make proper allowance for the risk reduction attainable through diversification, on its failure to differentiate adequately the creditworthiness of different countries and different private-sector counterparties, and the exclusive focus on credit risk (a point to which the work of the Basle Committee described in section IV.A constitutes an effective reply). There was also concern that implementation of the Accord's capital requirements would lead banks to cut back their lending with effects likely to be particularly adverse in countries experiencing recessions in the early 1990s.

The criticism regarding diversification is widely accepted as having substantial validity. It is reasonable to assume that the difficulty here lay in designing generally acceptable rules to allow for diversification's impact, a shortcoming which may eventually be met through greater reliance for supervisory purposes on banks' internal systems for measuring credit risk (see section V.D). The inadequate differentiation of the credit risk of different countries is taken up in section IV.C as part of the discussion of issues of special concern to developing countries. Regarding the crudeness of the calibration of the risk weights of private-sector counterparties attention was drawn, for example, to the attribution of a 100-per-cent weight to blue-chip corporates but one of only a 20-per-cent to some or all of banks' exposure in the interbank market. The irony of the latter was not lost during a period which witnessed the collapse of BCCI as well as troubles in the banking sectors of several OECD countries.[34] In extenuation it could be argued here that assessment of the credit risk of banks incorporated in an OECD country tended to be less complex than that of the credit risk of corporates since such banks were generally subject to more centralized and more uniform supervisory regimes.[35] This argument did not necessarily hold, however, for most non-OECD banks, where the short maturity of the exposure alone was grounds for the attribution in the 1988 Accord of a low 20-per-cent risk weight. As for failure to differentiate among corporates of different creditworthiness once again the framers of the 1988 Accord would have been confronted with a problem of feasibility: in the absence of reliance of banks' own rating systems or on rating agencies the choice of a basis for such differentiation would have been extremely difficult.

During the years following the introduction of the 1988 Accord there was a significant rise in the ratio of capital to risk-weighted assets in the major banks of member countries of the Basle Committee (BCBS, 1999b: 6–10). How far this increase, which was from an average initial level already above 8 per cent, was due to the Accord is difficult to discern

with any precision. However, the Accord does appear to have set new standards for transparency regarding bank capital, and the 8-per-cent ratio is now generally taken to be a minimum benchmark by investors. As to the question of whether implementation of the 1988 Accord led to reductions in bank lending one would expect the outcome to depend, *inter alia*, both on banks' initial capital positions and on the interaction of implementation with the business cycle or with sectoral or regional economic conditions strongly affecting borrowers. Although the Accord provided some scope for flexibility as to implementation in the form of a transition period before the 8-per-cent minimum became the standard, the evidence reviewed by the Basle Committee's working party does indicate that lending to certain sectors of the United States economy such as real estate and small enterprises may have been adversely affected by pressures on banks' capital in the early 1990s; and the weakness of bank lending in Japan throughout most of the decade may also be partly due to banks' effort to meet the new capital standards, though the effects here are difficult to disentangle from other weaknesses.[36]

One consequence of the 1988 Accord's rather crude calibration of private-sector credit risk has been the source of increasingly insistent criticism in the regulatory community. This is the incentive provided for banks to employ various techniques to increase higher-risk, higher yielding assets in relation to a given level of capital (a form of so-called regulatory capital arbitrage). Overall assessment of the extent to which capital requirements increase the levels of risk assumed by banks within broad categories of assets is difficult, and the research reviewed by the Basle Committee's working party is inconclusive (BCBS, 1999b: 20–21). Nevertheless, regulators believe that a significant part of banks' issuance of securitized assets in recent years, above all in the United States but also in Canada, Japan and Western Europe, can be traced to regulatory capital arbitrage.[37] A common technique for this purpose is the establishment of a "special purpose vehicle" (SPV) which finances its purchase of a bank's assets through the issuance of asset-backed securities to private investors. Although SPVs are usually recipients of a bank's higher-quality assets, the bank typically provides some form of credit enhancement which raises agencies' rating of the SPV's assets. Thus, such operations can reduce (but do not eliminate) the bank's exposure, and with it the associated capital requirements.[38]

Other forms of regulatory capital arbitrage to which the Basle Committee's working group has drawn attention involve shifts of assets from banking to trading books in cases where this would lead to lower capital requirements, and reductions to less than one year in the maturity classification of interbank lending to institutions from countries to which a higher than zero risk weight applies for loans of a longer original maturity. Evidence concerning the extent of the first of these forms of arbitrage is still unsystematic. However, pairwise comparisons of interbank lending to similarly rated countries to which the zero risk weight does or does not apply indicate a greater concentration of short-term lending to the latter.[39]

C. Issues for developing countries

At the time of the agreement on the 1988 Capital Accord the concerns expressed by developing countries focused more on the differences in risk weights for OECD and non-OECD countries and on their implications for the cost of external sovereign borrowing than on the way in which the Accord's capital standards might be incorporated into their own systems of banking regulation. This reaction was scarcely surprising: at first the Accord appeared to be an instrument for the regulation of the internationally active banks of developed countries since the spread of capital standards based on it to developing countries (described in section III.C) took some time to gather momentum. But as the adoption of such standards became more common and as their purview in many countries extended beyond internationally active banks to much or all of banking sectors, broader questions began to be raised. One of these questions concerned the appropriateness of the Accord's standards to countries with less developed banking sectors. Moreover, in the aftermath of the East Asian financial crisis voices were also raised that capital standards for banks might be used to raise the costs of some categories of their lending in such a way as to restrain volatile international capital movements at their source. Finally, as the increasingly global impact of the Basle Committee's prudential standards has become evident, there has been greater attention to the issue of the desirability of wider participation in the formulation of these standards than one limited to the Committee's member countries.[40] However, since this last issue was not considered especially significant during the earlier years of the 1988 Accord, it is taken up in section VI.B under the subject of the proposed New Framework for capital adequacy.

In the initial proposal of December 1987 submitted to a consultation process that eventually led to the 1988 Accord a neutral approach was taken to country credit risks: the risk weights were to make no distinction between exposures based on the country of the borrower. However, "virtually all the comments submitted by banks and banking associations in G-10 countries expressed strong views in favour of applying the same weightings to governments and banks from a selected group of economically stronger countries as those applied to claims on domestic governments and banks" (BCBS, 1988b: 15–16). Membership of the OECD or fulfilment of certain other restrictive criteria were selected for this differentiation since "it was felt that such an approach was the most practical and prudentially realistic, albeit arbitrary, that could be devised" (BCBS, 1988b).[41] The objections to differentiation on these lines raised by developing countries were made by certain oil exporters (amongst others) which pointed to the strength of their balance of payments and international reserves as reflecting a level of creditworthiness not adequately taken into account by the Accord's risk weightings. That the relative ratings among countries of the 1988 Accord were not always justifiable is implicitly acknowledged by the Basle Committee itself in the remarks quoted above. Since 1988 a small number of developing countries which were not accorded a zero risk weight have achieved consistently high performances with respect to economic indicators of creditworthiness but these were not those protesting most vigorously when the Accord was adopted.

As the reform of banking regulation became an important item on the policy agenda of developing and transition economies in the 1990s (a tendency given much additional impetus by the East Asian financial crisis), the appropriateness of the Basle standards to such economies became the subject of debate. Inter alia, the question was raised whether a more stringent standard than the 8-per-cent ratio was not justified for economies more vulnerable to macroeconomic shocks and with more fragile financial sectors than their developed counterparts.[42] Such remarks did not really constitute a criticism of the 1988 Accord which specifies the 8-per-cent ratio as a minimum standard and does not exclude the imposition of a higher figure by supervisors if they see fit. Moreover, the example of Australia described in section III.B points to ways in which a country can introduce the capital standards of the 1988 Accord in a way which observes its spirit but adapts it to the exigencies of a nexus of economic relationships with other countries different in significant respects from those of members of the Basle Committee. A more significant set of problems related to the application of the Accord to developing and transition economies concerned its effectiveness in countries where financial reporting and banking supervision fell short of standards attained in more developed countries. These are problems now being more fully addressed in recent initiatives of the Basle Committee including the proposed revisions to the 1988 Accord: standards for capital adequacy (as mentioned in section III.C) are an integral part of the *Core Principles for Effective Banking Supervision* and, conversely, supervisory review of capital adequacy in accordance with specified qualitative criteria is the "second pillar" of the proposed New Framework for capital adequacy and standards of financial reporting are an integral part of the "third pillar".

There is a widely observed tendency for countries that experience currency crises to manifest a high level of dependence on short-term borrowing. Since this dependence may reflect creditors' deteriorating confidence in a borrower's creditworthiness (a process in many ways analogous to that observed for corporations in financial difficulties), the autonomous contribution of short-term borrowing to a financial crisis is often difficult to identify. Nevertheless, short-term borrowing sometimes becomes a major part of countries' capital inflows well in advance of an eventual currency crisis, and in the case of several East Asian countries such dependence was also accompanied by high levels of dependence on interbank lending (see, for example, BCBS, 1999c: 23; and Annex 3). Although figures for international bank lending to these countries which combine breakdowns by maturity and the sector of the borrower are not available, it is generally assumed that the two features of short-term and interbank were connected and that much of this short-term interbank lending was driven by interest-rate arbitrage. In order to restrain the destabilizing potential of such capital flows (as well as to reduce incentives to regulatory arbitrage in the case of interbank lending to non-OECD countries of the kind mentioned in section IV.B) the attribution of a risk weight to short-term interbank lending better consonant with its real risks has been part of the agenda of the Basle Committee in its development of new proposals for capital adequacy. But the new proposals do not contain other provisions specifically directed at restraining the more volatile categories of capital flow at their source (although it should be recalled here that one of the objectives of the Basle Committee's standards for capital adequacy has always been to contribute to financial stability generally through the standards'

effect of achieving better pricing and control of banks' international lending).

V. The proposed New Framework

A. Overview

The proposals in the Basle Committee's document, *A New Capital Adequacy Framework,* have a somewhat tentative quality. This may reflect the pressures under which they were developed. The final stages of the New Framework's preparation began in the aftermath of the turbulence in financial markets which followed the Russian government's forced restructuring of its own short-term debt and its moratorium on the servicing of a wide range of private-sector external obligations in August 1998, and the rescue operation for the hedge fund, Long-Term Capital Management, which followed in the autumn.[43] Yet the perceived urgency of the Basle Committee's task was not sufficient to furnish the impetus needed to reach clear-cut solutions to many of the problems of enunciating standards which, the Committee is fully aware, will inevitably be applied to a more disparate group of banks than that for which the 1988 Capital Accord was originally designed.

The numerical standards proposed involve two basic approaches, one so-called standardized approach and one based on banks' own internal ratings. Under the first approach, however, two alternative options are possible for setting the capital requirements for banks' exposures to other banks. Moreover, there are indications that difficulties over the application of these two basic approaches raised in the consultative process following publication of the New Framework have led to consideration of the possibility of accommodating in the definitive version of the proposals a third approach which would consist of that of the 1988 Accord revised in only fairly minor respects.[44] Other notable features of the New Framework are its fully fleshed-out sections ("pillars") on supervisory review and market discipline. Neither of these subjects were absent from the earlier work of the Basle Committee in this area. But the greater emphasis on the quality of supervision and on the importance of disclosure and of standards of financial reporting appears to reflect the Committee's awareness in its increasingly global standards-setting role of the need to acknowledge more explicitly the essential contribution of minimum standards under these headings to effective regulation of banks' capital adequacy.

B. Objectives and scope; the definition of capital

After reaffirming the fundamental objectives of the 1988 Capital Accord (promotion of the safety and soundness of the financial system and the enhancement of competitive equality), the New Framework states that a revised Accord "should constitute a more comprehensive approach to addressing risks" (thus evolving with changes in the market itself) and that, while its focus should continue to be internationally active banks, "its underlying principles should be suitable for application to banks of varying levels of complexity and sophistication" (BCBS, 1999a, para. 9) – an explicit acknowledgment of the Basle Committee's new more extensive role in standards setting for bank regulation and supervision. The New Framework spells out more fully than the 1988 Capital Accord the way in which the proposals would be applied to whole banking groups: their application would be to a group on a consolidated basis, including to its parent holding company, and supervisors are enjoined to "ensure that each of the banks within a group is adequately capitalized individually".[45]

The focus of the New Framework is credit risk, and reference is made to the Basle Committee's objective of developing explicit capital charges for other banking risks such as operational risk and interest-rate risk. In the 1988 Capital Accord there was a somewhat greater (though imprecise) emphasis on the links between credit and other banking risks in setting its capital requirements.[46]

The definition of capital in the New Framework remains unchanged from that of the original Accord (as amended and clarified since 1988).

C. The standardized approach to capital requirements

Much of the discussion stimulated by the publication of the New Framework has focused on its standardized approach to the risk weighting of different elements among the assets of banking books. This is because of the proposed reliance on external credit assessments which could be those of credit rating agencies (used in the text to illustrate the way in which the approach would work). This section will be devoted to an explanation of how the standardized approach would work, and a subsequent one (VI.A) discusses problems posed by this recourse,

many of which are pertinent for developed as well as developing countries.

The standardized approach is a response to criticisms of the calibration of creditworthiness implied by the risk weights of the 1988 Capital Accord, especially the grouping of "OECD countries"[47] for the purpose of the attribution of the lowest weights in the case of sovereign risk, the weights for interbank exposures, and the failure to differentiate the creditworthiness of corporates. The nature of the reliance on external credit assessments is illustrated in table 1 which specifies the risk weights that would apply to different categories of counterparty (sovereign entities, banks and corporates) on the basis of the rating system of Standard and Poor's.[48] The calibration of sovereign credit risk is considerably finer than that of the 1988 Accord which, it will be recalled, provided for only two categories. Moreover, while the highest risk weight under the 1988 Accord was 100 per cent, the new standardized approach specifies a weight of 150 per cent for the lowest rated countries, those with a rating below B-.[49]

As already mentioned, the New Framework puts forward two alternative options for the risk weighting of banks. The first would be linked to the weighting attributed to the country in which the bank is incorporated. The weight attributed to the bank would be one category less favourable than that applying to the country (as illustrated under option 1 in table 1). However, there would be a ceiling of 100 per cent on the weights for exposures to banks of all but the lowest rated countries, for which the ceiling would be 150 per cent.

The second option would involve recourse to agencies' own ratings of banks. Under this option claims on banks with a rating of AA- or better would be assigned a weight of 20 per cent; those on banks with ratings between BBB- and A+ (a range covering most claims on banks according to the Basle Committee) would be assigned a 50-per-cent weight; and other banks would receive a weight of 100 per cent or 150 per cent according to their range of ratings.

Under the second option (unlike the first) interbank claims would also be differentiated by their maturity but the benchmark for such differentiation has been tightened from a residual maturity of up to one year in the 1988 Accord to an original maturity of up to six months. Short-term interbank claims under this definition for banks with ratings better than BB+ would be assigned a weighting one category more favourable than the risk weight on claims on a bank with longer maturities subject to a floor of 20 per cent or the level of the risk weight applying to its country of incorporation. For banks with ratings of BB+ and below short-term claims would be assigned the same weights as other claims.[50]

The weights of the New Framework also provide for differentiation in the case of non-financial corporates to recognize variations in their credit quality. A weight of 20 per cent is attributed to entities with a credit rating of AA- or better (subject to a floor determined by the condition that no corporate should receive a weight lower than that of its country of incorporation);[51] and corporates with a rating below B- would be assigned a weight of 150 per cent. Corporates not belonging to either of these ranges would continue to be assigned a weight of 100 per cent as in the 1988 Accord. In July 1998 the 1988 Accord had already been amended to treat claims on securities firms incorporated in OECD countries more like (non-short-term) claims on these countries' banks: such claims henceforth received a risk weight of 20 per cent so long as they were subject to supervisory and regulatory arrangements comparable to those applying to banks.[52] The New Framework pursues the same logic: securities firms would generally be weighted in the same way as banks.

Other changes in the standardized approach as compared with the 1988 Capital Accord concern the weights for off-balance-sheet items and the treatment of securitized assets. Under the first heading the only change proposed in the New Framework concerns short-term commitments such as standby commitments and credit lines. Under the 1988 Accord these received a zero weight. Partly owing to evidence of extensive rolling-over by banks of commitments with a term of up to one year – a practice often likely to be related to the higher conversion factor of 50 per cent applying to commitments with a maturity exceeding a year – a conversion factor of 20 per cent is proposed for those which are not unconditionally cancellable at any time or not automatically cancelled in response to a deterioration in the counterparty's creditworthiness.

The proposals on asset securitisation reflect the Basle Committee's concern that this technique as well as others covered by the term, "structured financing",[53] can be used by banks to reduce their capital requirements, while not necessarily also lowering their true exposure to credit risk. Since the market for securitized assets is increasingly a global one in which the asset-backed securities typically have an

Table 1

RISK WEIGHTS OF BASLE COMMITTEE'S NEW CAPITAL ADEQUACY FRAMEWORK EXEMPLIFIED WITH RATINGS OF STANDARD AND POOR'S

		Assessment					
Claim		*AAA to AA-*	*A+ to A-*	*BBB+ to BBB-*	*BB+ to B-*	*Below B-*	*Unrated*
Sovereigns		0%	20%	50%	100%	150%	100%
Banks	Option 1[a]	20%	50%	100%	100%	150%	100%
	Option 2[b]	20%	50% [c]	50% [c]	100%	150%	50% [c]
Corporates		20%	100%	100%	100%	150%	100%

Source: BCBS (1999a: 31).

a Risk weighting based on risk weighting of sovereign in which the bank is incorporated.

b Risk weighting based on the assessment of the individual bank.

c Claims of a short original maturity of less than six months on banks with a rating above BB+ would receive a weighting that is one category more favourable than the usual risk weight on the bank's claims subject to a floor of 20 per cent or the level of the risk weight applying to its country of incorporation.

external credit rating, the Basle Committee proposes reliance on these ratings for the attribution of risk weights, the relation between such weights and ratings above BBB- being the same as for interbank exposures under the first option of the standardized approach and more stringent treatment being reserved for assets rated BB+ and lower.

The standardized approach raises questions concerning the weighting of unrated exposures and the choice of eligible external credit assessors (which will presumably be more fully answered in the definitive version of the proposals). Regarding the first issue table 1 provides weights for unrated exposures. But it is interesting to note that the weights are less than for borrowers rated below B-, although a reasonable assumption might be that for some countries failure to seek a rating might be connected to the likelihood that the rating would prove to be B- or lower and that the borrower would be thus assigned a risk weight higher than the 100 per cent specified for unrated exposures.[54]

The New Framework sets out a number of conditions to be met in the case of the use of external credit assessments under the standardized approach. Either two assessments by eligible institutions would be required or only one assessment where no eligible institution had given a lower assessment. To be eligible an institution would have to meet certain criteria regarding the objectivity and independence of the methods employed to assign credit assessments, the transparency and the access to the results of its assessment for non-domestic parties, and its credibility and size. The institutions envisaged for this purpose in the New Framework include not only credit rating agencies but also export insurance agencies. But the description in the New Framework would appear to leave several questions open as to how such a system would be implemented. For example, there may be the problem of reconciling different ratings by different agencies for a particular borrower. Moreover, when an export insurance agency is used, there may be difficulties in establishing a concordance between its ratings and those of credit rating agencies. Furthermore, the focus of many export insurance agencies is generally different aspects of country risk, and their assessments will not necessarily include ratings for banks, non-financial corporates and securitized assets.

This uncertainty about the modalities of the application of the New Framework's standardized approach points to the need for caution in establishing lists of likely winners and losers under it. In view of the New Framework's use of the sovereign rat-

ings of Standard and Poor's to illustrate how the approach would work, commentators naturally seized upon its existing country ratings to establish such lists. If proposals along these lines are eventually adopted, there will be increases and decreases in the minimum capital requirements for exposure to certain countries: the countries or territories most likely to benefit would be certain Asian countries whose risk weights would fall from 100 per cent to zero (Singapore and Taiwan Province of China, for example); various, primarily middle-income, developing countries would also be likely to receive lower than their current 100-per-cent weights (Chile, China and Thailand, for example); some OECD countries, primarily those which have acceded to membership recently, would lose their current zero weights; and a number of developing and transition economies, including some which have recently experienced financial crises, might have their current 100-per-cent weights increased to 150 per cent.[55] But any such forecasts are tentative. Moreover, it should be remembered that the subject here is minimum risk weights, which may not correspond to the weights actually used by banks in their capital allocation for credit risk.

D. The internal ratings-based approach; other possible options

As an alternative to the standardized approach the New Framework proposes an internal ratings-based (IRB) approach, under which capital requirements would be set on the basis of a bank's own quantitative and qualitative assessment of its credit risk, an option likely to be applicable only to "sophisticated" institutions (a term which for an internationally active bank would presumably cover the quality of its international research as well as the technical capability of its risk management function). The IRB approach would require supervisors to evaluate, monitor and validate banks' rating systems (in a process in some ways analogous to that of the non-standardized methodology for capital requirements for market risk described in section IV.A). The Basle Committee acknowledges the still preliminary nature of its proposals on this topic and promises greater detail after conducting consultations with the banking industry.

In a discussion paper published at the beginning of this year the Committee sets out in greater detail the following key elements to be included in the "architecture" of an IRB approach: (i) the bank's assessment of the risk of default in a borrower, as embodied in its internal rating and the measurable risk characteristics associated with these ratings; (ii) a system for slotting those exposures within a given bank grade into a regulatory capital bucket based on the bank's quantifiable concept of borrower default, as well as loss-given-default and potentially other asset characteristics; (iii) development of a capital charge associated with each regulatory capital bucket based on estimates of its relative riskiness; (iv) minimum standards and sound practice guidelines for key elements of the rating process, including key characteristics of the rating system and process; and (v) a supervisory process for validating this approach including, inter alia, ways of ensuring that the underlying measures of loss are consistent and comparable across banking institutions and countries as well as over time (BCBS, 2000a: 4–6). Subsequent elaboration of the "architecture" (not necessarily possible within the timeframe envisaged if the option is to be included in the initial revision of the 1988 Accord) could include the following: (i) increasing the number of dimensions in the architecture to incorporate other asset characteristics; (ii) breaking the units of measurement in each dimension into finer gradations; (iii) extending the degree of bank discretion in estimating key inputs as banks demonstrate the adequacy of their data collection; and (iv) introducing additional refinements for the treatment of complex instruments in banks' portfolios (BCBS, 2000a).

The New Framework acknowledges considerable advantages in the IRB approach. For example, internal ratings may incorporate supplementary information about borrowers which is usually beyond the reach of institutions providing external credit assessments, and may cover a much broader range of borrowers. Moreover, the existence of the regulatory option of the IRB approach with the flexibility it provides could offer banks the incentive to undertake further development of their internal techniques for managing and measuring credit risks (including the modelling of credit risk)

The counterbalancing drawbacks cited in the New Framework are the lack of homogeneity among rating systems at different banks and the central role still played by subjective risk factors and business judgements in the assignment of risk grades to particular borrowers, circumstances unfavourable to the degree of comparability among banks necessary for the setting of supervisory benchmarks for vetting internal ratings. These points are elaborated in the Basle Committee's discussion paper on the basis of

a survey of practices at 30 predominantly large internationally active banks, which revealed substantial variation in the coverage of internal rating systems, the methods used to grade different sub-portfolios or groups of borrowers, the balance between quantitative methods and more qualitative ones or judgement, the incorporation of external into internal ratings, and even in the definitions of default and loss (BCBS, 2000a, especially Parts 2–4).

As already noted, reservations have been expressed in several quarters concerning the New Framework's standardized approach. At the same time the alternative option put forward, the IRB approach, is likely to be feasible for only a limited minority of sophisticated international banks. There is thus the possibility that in the definitive version of its proposals the Committee will also allow the option of maintaining the system of risk weightings in the 1988 Accord subject to relative minor amendments reflecting supervisory experience (such as a tightening of the rules regarding which exposures qualify as short term). But in all cases supervision of capital adequacy would include not only minimum capital requirements but also the other two "pillars" of the New Framework, supervisory review and market discipline.

E. The second and third "pillars"

As mentioned above, the New Framework devotes more attention than the 1988 Accord to the qualitative prerequisites of banks' capital adequacy. The second and third "pillars" of the New Framework, supervisory review of capital adequacy and market discipline, belong under this heading. The Basle Committee has given special emphasis to the fact that it "does not view the three pillars discussed in *A New Capital Adequacy Framework* ... as being separate initiatives but rather as being complementary parts of a general attempt to enhance the international capital adequacy framework and to improve its overall effectiveness and operation" (BCBS, 2000b: 3). Arguably, this statement applies with special force to developing and transition economies where in most cases standards for supervisory review and disclosure still have further to go than in industrialized countries.

The discussion of supervisory review in the New Framework is concerned primarily with the application of the following four principles: (i) supervisors expect banks to operate above the minimum regulatory capital ratios and should be able to require banks to hold capital in excess of the minimum; (ii) a bank should have a process for assessing its overall capital adequacy in relation to its risk profile, as well as a strategy for maintaining its capital levels; (iii) supervisors should review and evaluate a bank's internal capital adequacy assessment and strategy, as well as its compliance with regulatory capital ratios; and (iv) supervisors should seek to intervene at an early stage to prevent capital from falling below prudent levels. Unsurprisingly, these four principles are closely linked to criteria for assessment of compliance with the Core Principles for Effective Banking Supervision in the area of capital adequacy discussed in another paper of the Basle Committee, *Core Principles Methodology* (BCBS, 1999d: 1–4). These assessments are not to be carried out by the Basle Committee itself but by other parties such as the IMF, the World Bank, regional development banks, regional supervisory organizations and even private consultants or as part of "peer reviews" in which supervisors of one country assess another and vice versa. The assessments are intended to be part of global and regional efforts to promote financial stability, and the role of the IMF will be related to its efforts to encourage compliance with the Core Principles in the context of its surveillance mandate.[56]

The criteria regarding capital adequacy (discussed under Principle 6 of the *Core Principles Methodology*) include the following: "capital adequacy requirements take into account the conditions under which the banking system operates" so that "minimum requirements may be higher than [those under] the Basle Accord"; "the supervisor determines that banks have an internal process for assessing their overall capital adequacy in relation to their risk profile"; "regular ... reporting by banks to the supervisor is required on capital ratios and their components"; and "laws and regulations clearly give the supervisor authority to take measures should a bank fall below the minimum capital ratio" and "the supervisor clearly sets out the actions to be taken if capital falls below the minimum standards" (BCBS, 1999d: 20). The *Core Principles Methodology* also contains an extensive list of other requirements for the legal framework of banking supervision and for procedures to be followed by supervisors. Nevertheless, in the context of current initiatives to reform the international financial system, it is well to recall the lesson of much recent experience in countries with state-of-the-art bank supervision that such requirements do not provide failsafe protection against outbreaks of instability in the banking sector. In the worked

example (BCBS, 1999d: 50) of a sample assessment of compliance with supervisory criteria regarding capital adequacy in the *Core Principles Methodology* the emphasis is interestingly on lacunae in the legal framework of the country in question and the example does not provide a model for assessment of other aspects of the supervision of capital adequacy (which have been important in some in recent financial crises, including those in industrial countries, and require more complex guidelines).

The principles linked to the second "pillar" of the New Framework and the assessment criteria for the Core Principles also serve to illustrate the increasingly pervasive shift in emphasis among the norms for effective banking supervision away from numerical standards towards more qualitative ones. This shift was noted above in section IV.A in connection with the Basle Committee's acceptance of banks' use of proprietary in-house models for measuring market risk so long as the performance of the models meets specified supervisory standards. Moreover, as explained in section V.D, the Basle Committee is considering the option of allowing banks to set capital requirements for credit risk on the basis of internal rating systems which have obtained supervisory validation, but this option is envisaged only for "sophisticated" institutions. The second "pillar" of the New Framework, however, indicates that supervisory skills similar to those required for effective auditing will also be needed for implementation of other proposals of the New Framework, and that such skills will have to be continuously upgraded to enable supervisors to handle changes in banks' operations and products (which have been rapid in recent years).

The potential of market discipline to reinforce capital regulation (as well as prudential supervision more generally) depends on the disclosure of reliable and timely information enabling banks' counterparties to make well-founded risk assessments (as well on these counterparties' actions in response to these assessments). In a recent discussion paper the Basle Committee has elaborated the recommendations of the New Framework concerning the nature of the information which should be disclosed under the third "pillar" (BCBS, 2000b: 4–8). This should include the structure and components of a bank's capital, the terms and main features of its capital instruments, the accounting policies used for the valuation of assets and liabilities and for provisioning and income recognition, qualitative and quantitative information about its risk exposures and its strategies for risk management, its capital ratio and other data related to its capital adequacy on a consolidated basis, and a breakdown of its risk exposures calculated in accordance with categories specified in the 1988 Accord and the eventual revised version. This information should be supplemented by an analysis of factors affecting the bank's capital adequacy. Moreover banks are encouraged to disclose the ways in which they allocate capital among their different activities. As in the case of the second "pillar", the disclosure standards of the third "pillar" figure amongst the assessment criteria for compliance with the Core Principles which were mentioned above but in this case with a less explicit specified link to the regulation of capital adequacy.[57]

The introduction of more uniform regulatory standards for capital adequacy in a large number of countries is believed to have been due in part to an improvement in the market's ability to exert pressure in this area (BCBS, 1999b: 2, 6). The effects have varied among countries, to a significant extent owing to differences in standards of disclosure linked to both accounting and auditing practices and other dimensions of transparency.[58] Owing to its apparently uncontroversial nature the third "pillar" attracted relatively little attention at the time of the publication of the New Framework. However, its implementation may pose particularly awkward problems in several developing and transition economies (and thus prove to be a major source of difficulties during compliance assessment) owing to weaknesses in accounting and other disclosure standards and to the widespread existence of state-owned banks or banks controlled by small groups which have previously been subject to at best lax rules regarding transparency.

F. The New Framework's context of innovation in the management of credit risk

The New Framework discusses at some length recent developments in the management of credit risk and their potential implications for the setting of capital requirements. Two of the subjects singled out for discussion by the Basle Committee are taken up here owing to their relation to the likely future direction of rules for banks' capital adequacy, namely credit-risk models and credit derivatives.

Banks' modelling of credit risk is closely linked to their internal rating systems for such risks. When these models are used, they are intended "to aid banks in quantifying , aggregating and managing risk across geographical and product lines" and their "outputs

also play increasingly important roles in banks' risk management and performance measurement process" (BCBS, 1999e: 1). This suggests a potential for the use of such models in the supervision of banks' capital adequacy for reasons similar to those for the IRB approach. However, before this potential can be realized, as the New Framework puts it: "supervisors would have to be confident not only that the models are being used to actively manage risk but also that they are conceptually sound, empirically validated, and produce capital requirements that are comparable across institutions" (BCBS, 1999a: 41). At present the Basle Committee takes the view that these conditions have not yet been met.

Elsewhere the Committee has elaborated its reasons for taking this position (BCBS, 1999e: 1–2 and 51–55). Of special importance here are data limitations and model validation. Unlike those in the case of the modelling of market risk, predictions for models of credit risk cannot rely on statistical projections based on comprehensive records of historical prices. The scarcity of pertinent data also results from the infrequent nature of defaults. Owing to the resulting use of simplifying assumptions and proxy data the sensitivity of models of credit risk to structural assumptions and parameter estimates is essential to their validation. But the time frame required for such validation, which should cover a number of credit cycles,[59] requires testing on the basis of amounts of data so large as to be impractical for individual institutions or as to necessitate co-operative efforts from the industry which are currently still only at an early stage.[60] In considering the possibility of increased reliance on models here (along lines analogous to that for market risk), supervisors have also to take account of the greater size of banking than of trading books at most institutions and thus the potentially more serious effect of errors in the measurement of credit risk for a bank's soundness.

The 1988 Accord and its amendments have recognized the effect in reducing credit risk of techniques such as collateral, third-party guarantees and netting arrangements. The New Framework has added to these techniques credit derivatives, whose use has expanded rapidly since the early 1990s.[61] Stripped to their essentials, most credit derivatives are transactions in which one party receives a fee and commits itself to provide the other party with some specified payment or transfer of value, should the credit quality of a third party deteriorate. The consequent opportunities for disaggregating and transferring credit risk are used to meet various needs such as the management of credit lines, reduction of capital required by regulation, the hedging and diversification of portfolios, and pure risk reduction (BBA, 1997, chapter 3). Practices regarding valuation and regulation have yet to become firmly established.[62] Partly this is due to the novelty of credit derivatives. But the situation also reflects the difficulty of classifying them as a separate and distinct instrument. For example, an option to purchase a fixed-rate debt instrument whose price is highly credit sensitive could be characterized either as a standard financial option or as a credit derivative.[63] The New Framework devotes considerable attention to the problems of measuring the extent of the risk reduction which can be achieved by credit derivatives and other new techniques for mitigating credit risk. While recognizing the potential benefits of such techniques and the need for their recognition in setting capital standards, the Basle Committee does not commit itself in the New Framework to any particular formula or solution. Instead, it expresses the hope that consultations with the banking industry will lead to identification of differences in the degree of mitigation of credit risk among credit derivatives and other new hedging techniques for the purpose of establishing regulatory standards. Despite this absence of a commitment to a particular form of regulatory recognition in the New Framework some quarters appear confidently to be anticipating increased incentives for using credit derivatives in the revised version of the 1988 Accord (Fleming, 1999: 33). If the expected growth of these instruments then follows, there will be important implications for the supervision as well as banks' management of credit risk.

VI. Some issues arising in connection with the New Capital Adequacy Framework[64]

A. Credit rating agencies; pro-cyclicality

Probably the most contentious proposal of the New Framework is that for the use of the ratings of credit rating agencies to set risk weights under the standardized approach. There is a widespread view that the agencies' track record, especially with respect to identifying the probability of serious threats to the debt-service capacity of, or defaults by, sovereign borrowers is not good enough to justify such reliance. Most of the expansion in the number of sovereign ratings since the Second World War has taken place since the 1970s. However, such ratings were common in the inter-war period, and critics of

agencies' performance also point, for example, to the fact that a majority of the countries which defaulted between 1929 and 1935 had investment-grade weightings from Moody's in 1929 (Cantor and Packer, 1995: 2–3). Recent criticism has focused on the agencies' performance during the Asian debt crisis. A notable feature of this crisis was the large and swift downgrading of some of the countries affected: Thailand, for example, was downgraded four notches[65] by both Moody's and Standard and Poor's between July 1997 and the early 1998; Indonesia five notches by Moody's and six by Standard and Poor's between June 1997 and the early 1998; and Republic of Korea six notches by Moody's and no less than 10 by Standard and Poor's during the same period (BCBS, 1999c: 20–23).

Two major concerns about the proposed use of agencies' ratings under the New Framework's standardized approach are the effect such a shift would have on borrowers' cost of credit at the time of adoption and the possibility that if credit rating agencies' announcements simply parallel changes in market sentiment or, still worse, actually follow such changes, then they are capable of exacerbating fluctuations of conditions in credit markets and thus financial crises.

The first of these concerns has already been raised in section V.C, where the necessarily tentative nature of any forecasts of the effects of using agencies' ratings for setting risk weights was emphasized. The reasons given were the imprecise nature of the correspondence between the minimum risk weights of the standardized approach, on the one hand, and the allocation by banks of capital to their exposures to different borrowers and thus the pricing of their lending, on the other. Consideration of agencies' rating record should reinforce this caution since major agencies often disagree in their attribution of ratings. For example a survey of the sovereign ratings of Moody's and Standard and Poor's as of June 1995 showed that they agreed for ratings of AA/Aa or above in 67 per cent of cases, for other ratings of investment grade in 56 per cent of cases, and for ratings of below investment grade in 29 per cent of cases (BCBS, 1999c: 4). The low level of agreement for borrowers of below investment grade is especially significant for developing and transition economies since a large majority belong to this category, and would make the impact on such economies of the adoption of risk weights based on the agencies' ratings particularly difficult to forecast.

The statistical evidence concerning the effects of agencies' announcements[66] concerning credit worthiness on countries' borrowing costs relates primarily to the spreads on dollar-denominated bonds above the yields of United States Treasury bonds of the same maturity. This evidence shows strong correlations between agencies's announcements and yield spreads. But mere correlation does not settle questions regarding the nature of agencies' role during fluctuations in credit conditions: only if the announcements of credit agencies concerning changes in credit- worthiness preceded changes in market conditions, would it seem reasonable to credit them with an effective ex-ante capacity to rate credit risk. And the results of research provide at most rather weak support for this proposition.

This emerges clearly, for example, from event studies in which daily movements of yield spreads are tracked during the periods before and after announcements. In the case of announcements of negative changes in creditworthiness yield spreads for the borrower in question on average rose throughout the month before the event, and in the case of announcements of positive changes fell.[67] Such movements do not preclude the possibility that rating announcements have some independent, generally limited, impact on yield spreads: one study, for example, identifies atypically large daily movements in yield spreads on the day of and that after announcements, and finds that ratings themselves explain more of the variance in yield spreads than a standard set of macroeconomic indicators used to estimate the determinants of such spreads.[68] Movements in spreads during the days after the announcements were frequently but not always the same direction as before.[69] Other tests of the direction of causality of the relation between announcements and yield spreads suggest that the causality goes both ways.[70]

As the authors of one of these studies put it, their findings imply that while sovereign ratings have the potential to moderate large cycles in conditions in credit markets for borrowers from emerging markets, "the rating agencies have failed to exploit that potential over the last decade" (Reisen and von Maltzan, 1999: 5). These findings help to explain the wariness regarding recourse to agencies' ratings for setting banks' minimum capital levels in many official circles (and not only those in developing and transition economies), a wariness which, it should be noted, is apparently matched by some reluctance among the agencies themselves to assume such a role.[71]

Thus an important part of the misgivings concerning a role for agencies' ratings in the setting of capital requirements relates to the possibility that the

result might be an accentuation of fluctuations in the availability and cost of financing from credit markets. Systematic studies bearing on the question of whether use of the external credit assessments of export insurance agencies (another possible source of such assessments under the New Framework's standardized approach) would appear to be lacking, though there is no reason to suppose that their track record in identifying shifts in creditworthiness ahead of market participants is necessarily superior to that of the rating agencies. It should be emphasized that the idea of a system of rules for capital adequacy completely free of elements likely on occasion to reinforce cyclical movements in credit conditions seems utopian.[72] What can reasonably be asked of such a system is that on balance it contributes to behaviour by lenders which make large movements less rather than more likely, a point of special importance to developing countries regarding revised capital standards in view of the highly cyclical nature of capital flows during recent financial crises. Thus, the discussion above of credit rating agencies' track record suggests that formulation of detailed rules incorporating the external credit assessments of such agencies into the regulatory rules for banks' capital will be a difficult task, requiring safeguards against the possibility of perverse effects.

B. Broader participation in standards formulation

At several points in this paper reference has been made to the Basle Committee's progression from being a source regulatory initiatives directed at internationally active banks by its member countries to that of a global standards setter. This process has inevitably raised questions concerning its representativeness, and such questions are particularly understandable in relation to rules regarding capital adequacy, a linchpin of regimes for prudential supervision and a particularly prominent subject of the Committee's work.[73]

The Committee's membership is still limited to agencies (regulatory bodies, ministries of finance and central banks) from 12 countries.[74] Arguments traditionally put forward in favour of its composition and working methods include the following: that its compact size is closely connected to the smoothness of its working methods and to its ability to achieve results fairly speedily and on the basis of consensus; that this consensus plays an important role in the way in which standards enunciated by the Committee are incorporated in national regulatory and supervisory regimes; that the credibility of the Committee's work in the financial sector itself, which is also important for the effective implementation of its results, depends on the quality of its membership, quality here reflecting the sophistication of a country's financial markets as well as the calibre of its supervisors; and that the Committee devotes considerable efforts to its contacts with supervisory bodies throughout the world (mentioned above in section III.C). These are weighty arguments, especially when one compares the working methods of, and the results achieved by, the Committee with the performance of many other major international organizations in the area of establishing internationally accepted rules. Nevertheless, they do not preclude changes in the direction of broader participation in the Committee's work, and indeed recent actions of the Committee itself suggest that its members may be open to such changes, provided they do not compromise the strengths just mentioned. Moreover, it might be argued that the beneficial effects of broader participation in the Committee's work would not be limited to satisfying demands which are a natural concomitant of its global impact. As those parts of the banking industry and the network of financial markets outside the main industrial countries grow increasingly important, the credibility of the work of the global standards setter for banking regulation in the banking sector itself may actually be enhanced by greater participation in preparation of these standards on the part of representatives of countries outside its traditional membership, especially in view of the general acknowledgement that supervisors, banks and markets in a number of such countries have now attained high levels of sophistication.[75]

The Basle Committee itself took steps in this direction in its work on the *Core Principles for Effective Banking Supervision.* This document was prepared in a group containing not only representatives of the Committee's membership but also from Chile, China, the Czech Republic, Hong Kong (China), Mexico, Russia and Thailand. Nine other countries (Argentina, Brazil, Hungary, India, Indonesia, Republic of Korea, Malaysia, Poland and Singapore) were also closely associated with the work (BCBS, 1997a: 1–2). This could be a model to follow in future.[76] Modalities would of course need to be discussed. These would include such questions as whether broader participation in the Committee's work should entail an expansion of its formal membership or whether it should be based on ad hoc arrangements related to work on particular subjects.[77] The compactness of the Committee's working groups

could be preserved through limitation of their size decided by the Committee itself (although exclusion from some working groups of members of an eventually expanded Committee might easily prove to be a source of delicate political problems). But speculation as to the nature of appropriate modalities may not be helpful at this stage. More important is acceptance that the expanded participation which characterized the preparation of the *Core Principles* should be a more general characteristic of the Basle Committee's future work.

C. A brief look into the future

Banks' capital is directed at the risk of unexpected losses. In principle, all categories of banking risk which can lead to such losses should be covered, and all of them are ultimately capable of being translated into credit risk for the institution itself. Those concerned with the management of banks are inevitably confronted with the interrelationships among different categories of banking risk. Banks' internal controls reflect awareness of this and are designed, more or less effectively, to deal with the problems which these interrelationships pose. Recent periods of financial turbulence have dramatized connections between different banking risks, in particular those between credit and market risk. These connections have been highlighted in publications of both the Basle Committee and the Bank for International Settlements. In a review of supervisory lessons of the Asian crisis, for example, a working group of the former noted that "The correlation of market risk and credit risk in the Asian crisis also represented an important risk phenomenon. As the market value of many claims against Asian counterparties rose during the crisis, the financial stability and soundness of many counterparties fell, thus increasing the risk of non-payment by those counterparties".[78]

Unsurprisingly, the efforts of major banks to upgrade their risk management function in response to the increased complexity of many of their operations and products (which have proved the source of large losses for several institutions in recent years) are characterized by an increasingly integrated approach to the handling of different risks.[79] There is still some question as to how robust the new methods of risk management will prove in times of stress, but the focus of attention in this area is likely to be their further improvement. Moreover, in various forms these methods will inevitably spread from the larger, more sophisticated institutions throughout the industry.

Considered from the standpoint of integrated risk management the series of international initiatives on capital standards and other aspects of the prudential supervision of banking risks have a piecemeal, slightly adventitious quality, which is no doubt the consequence of their being driven by supervisory concerns linked to actual experience of major banking risks at different times and by the uneven progress of different parts of the state of the art of risk management. Thus, for example, as explained earlier in this paper, the initial focus of these initiatives was the traditional counterparty risk of banking books; the next major steps concerned market risk, reflecting the growing importance of many banks' trading books and the increasing sophistication of their techniques for managing such risk; the current move to revise the 1988 Capital Accord is driven partly by changes in market practice that have accentuated some of the Accord's anomalies, and the new proposals are also intended to accommodate to some extent developments in banks' techniques for managing credit risk; and further attention can be expected to the development of prudential standards for operational and interest-rate risk as techniques for managing these risks improve. As suggested at several points in this paper, this process has entailed an apparently inexorable tendency for the focus of banking supervision to shift towards vetting firms' systems for monitoring risks and setting capital requirements at levels reflecting their own estimates of possible unexpected losses. The growing complexity of banks' operations and the increasing sophistication of the requirements for successful banking supervision have implications for international initiatives regarding financial regulation, the functioning of the international financial system, and policies in developing and transition economies in the area of regulation and supervision. The full range of these subjects cannot be treated in this paper but in conclusion a few of the issues with a more or less direct bearing on matters discussed earlier in this paper will be taken up.

Firstly, as frequently emphasized above, the increasingly heterogeneous banking sector with which the Basle Committee is concerned is a source of growing difficulty for global standards setting since its objectives include a reasonable measure of regulatory uniformity for the institutions covered and thus the reduction to minor proportions of advantages in competition among them due to differences in national regulatory regimes (so that the so-called "level playing field" applies).[80] Not only competitive conditions are involved here but also the scale of international capital movements. This is because

a significant amount of such movements is a response to regulatory differences among jurisdictions and firms' understandable determination to take advantage of them.[81]

Secondly, the progressive shift in the nature of banking supervision away from reliance on relatively simple rules and procedures is increasing the skills required of supervisors (in particular placing a premium on enhanced quantitative skills). Not all countries will be affected equally by these changes, and those with less developed banking sectors will be affected least (initially at any rate). But the trend is already widespread and likely to become increasingly important. It has already contributed to several international training initiatives to strengthen supervisors' skills. But the problems for national policy are not limited to expanding training. As supervisors acquire the new skills (which will often include most or all of those required of auditors, for example), the public sector will often find itself competing for their services with banks and accounting firms capable of offering substantially higher remuneration. To some extent the resulting situation may be amenable to amelioration through linking the training provided to supervisors to contracts which require a period of service in the public sector. But such a measure is unlikely to eliminate this difficulty.

Thirdly, in licensing foreign banks countries need to take account of their capacity to supervise the activities the banks are permitted to engage in (activities subject to rapid innovation of the kinds exemplified in section V.F). This is not necessarily an easy counsel. To some extent supervisors can rely on their counterparts in the country of the bank's parent institution (in accordance with the principles of the Basle Committee's 1992 statement, *Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments* (BCBS, 1992a), discussed in section III.C), but there may be limits to the extent to which such reliance is feasible.[82] Moreover in situations of banking crisis where infusion of capital to local institutions from foreign banking groups is regarded as essential to restructuring, countries can be in a weak bargaining position regarding the licensing of the activities which new entrants are permitted to undertake. With time convergence in banking practices and supervisory standards, one can hope, will attenuate these difficulties but it is foolhardy to expect the process to be other than gradual.

Annex A

RATING SYMBOLS FOR LONG-TERM SENIOR DEBT OF SELECTED CREDIT RATING AGENCIES

Investment grade ratings			*Speculative grade ratings*		
S&P [a] and others [b]	*Moody's*	*Interpretation*	*S&P [a] and others [b]*	*Moody's*	*Interpretation*
AAA	Aaa	Highest quality; extremely strong	BB+ BB BB-	Ba1 Ba2 Ba3	Likely to fulfill obligations; ongoing uncertainty
AA+ AA AA-	Aa1 Aa2 Aa3	High quality	B+ B B-	B1 B2 B3	High risk obligations
A+ A A-	A1 A2 A3	Strong payment capacity	CCC+ CCC CCC- CC	Caa1 Caa2 Caa3	Current vulnerability to default
BBB+ BBB BBB-	Baa1 Baa2 Baa3	Adequate payment capacity	C D	Ca	In bankruptcy or default, or other marked shortcoming

Source: Cantor and Packer (1994) as updated in Caouette et al. (1998: 69).

a Standard and Poor's.

b Other major credit rating agencies in industrial countries with the exception of Canadian Bond Rating Service and Dominion Bond Rating Service.

Notes

1 Basle Committee on Banking Regulation and Supervisory Practices, the forum which was the source of this Accord, was subsequently renamed Basle Committee on Banking Supervision.

2 Credit risk results from the possibility that a bank's counterparty will default on its obligations. The principal focus of the discussion which follows is credit risk. Other banking risks such as market risk will be covered only incidentally.

3 Netting refers to the amalgamation of sums due to and from a bank for the purpose of estimating its net risk exposure. Such netting can be bilateral, in which case it applies to the mutual obligations of the counterparties, or multilateral, in which case it applies to the mutual obligations originating within a group of counterparties (net amounts due being settled through a central clearing house). So long as they are supported by appropriate legal rules, such netting arrangements can reduce banks' risk exposure, and the Basle Committee's role here has consisted in specifying when such a reduction should be reflected in lower capital requirements for banks.

4 Market risk is that of loss due to changes in the market value of a bank's assets before they can be liquidated or offset in some way.

5 The Basle Committee on Banking Supervision comprises representatives of the central banks and supervisory authorities of Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Sweden, Switzerland, United Kingdom and United States.

6 The discussions here of the definition of capital for the 1988 Accord and of its risk weights draw extensively on Dassesse et al. (1994, chapter 14), and on Murray-Jones and Gamble (1991, chapter 2).

7 Comprehensive classifications of non-standard financial instruments with examples of their use in practice are hard to find. The most comprehensive known to this writer is that (for the United States) contained in Graham and Dodd (1934, note 3). This "partial list of securities which deviate from the normal patterns" takes 17 pages, and covers bonds, preferred stocks (including the example of non-cumulative preferred with no claim whatever to assets), and common stocks which deviate from the standard pattern as well as miscellaneous non-standard securities.

8 Perpetual non-cumulative preference shares (an instrument first introduced in and most commonly used in the United States among countries of the Basle Committee) are not redeemable at a pre-set date or at the option of the holder, and the holder has no right to recoup eventually a dividend which has been passed for any reason.

9 The Basle Accord lays down a standard for the minimum level of capital. Tier-2 capital in excess of that required for meeting this minimum may thus in some countries contribute to satisfying supplementary levels required by regulators.

10 The goodwill component of the investments in a bank's portfolio reflects the excess of the going-concern value of assets over their liquidation value, i.e. the sum available on an investment if the business involved were wound up and its assets turned into cash. Goodwill is an intangible asset, whose value derives from the capitalization of future profits expected to accrue as a result of some intangible advantage, such as a good reputation or strategic location. The sum at which goodwill is carried on a balance sheet is generally only an approximate estimate of its true value.

11 In the case of items under (c) and (d) regulatory authorities have the discretion to attribute a higher weight. In the case of collateral and guarantees here and below the weight of the entity bearing the ultimate risk applies only to the extent to which the risk is covered: where a claim is partially guaranteed or secured, only that part of it will attract the lower weight of the entity in question.

12 The multilateral development banks explicitly specified are the World Bank, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank and the European Investment Bank. But other such banks in which Group-of-Ten countries are shareholding members may also be included under this risk weight at national discretion.

13 This can be illustrated for an interest-rate swap in which one party (A) pays a fixed rate and receives a floating rate, while the other (B) receives fixed and pays floating. At the contract's inception its terms are set so that its present value is zero, but if interest rates subsequently rise, the contract moves into the money for A (while taking on a negative present value for B), so that its replacement in the event of B's default would entail a cost to A (and is thus a source of credit risk).

14 No potential future credit exposure is calculated for swaps involving the exchange of payments at two different floating interest rates, the credit equivalent being estimated solely on the basis of replacement value.

15 Contracts traded on exchanges may be excluded where they are subject to daily margin requirements (the credit risk in such cases being assumed to have become that of the exchange).

16 Internationally active banks are those with foreign branches or undertaking significant cross-border or Eurocurrency business.

17 Council Directive of 17 April 1989 on the own funds of credit institutions (89/299/EEC).

18 Council Directive of 18 December 1989 on a solvency ratio for credit institutions (89/647/EEC).

19 The preamble to the Own Funds Directive contains the statement; "Whereas credit institutions in a common banking market engage in direct competition with each other, and the definitions and standards pertaining to own funds must therefore be equivalent; ... whereas the adoption of common basic standards will be in the best interests of the Community in that it will prevent distortions of competition and will strengthen the Community banking system".

20 "Credit institution" is the term in EEC/EU banking regulations for "an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credits for its own account".

21 "The commitments of the members of credit institutions set up as co-operative societies ... shall comprise those societies' uncalled capital, together with the legal commitments of the members ... to make additional non-refundable payments should the credit institution incur a loss, in which case it must be possible to demand those payments without delay".

22 See Murray-Jones and Gamble (1991: 155–156). The speed with which Australia adopted capital standards based on the Basle Accord – in August 1988 on the basis of a prudential statement of the Reserve Bank of Australia – no doubt partly reflected its position as one of the 28 countries at that time whose central banks were shareholders of the Bank for International Settlements, which provides the secretariat support for the Basle Committee.

23 These contacts are described at length in the biennial *Reports on International Developments in Banking Super-*

vision of the Basle Committee on Banking Supervision. See also BCBS (1998a, section C) and Cornford (1993: 9–11).

24 For a good review of this Act see Misback (1993).

25 First Council Directive on the co-ordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of credit institutions (77/780/EEC).

26 See BCBS (1992a). These minimum standards can be summarized as follows: (i) all international banking groups and international banks should be supervised by a home-country authority that capably performs consolidated supervision; (ii) the creation of a cross-border banking establishment should receive the prior consent of both the host-country supervisory authority and the bank's, and if different, banking group's home-country supervisory authority; (iii) supervisory authorities should possess the right to gather information from the cross-border banking establishments of the banks or banking groups for which they are the home-country supervisor; and (iv) if a host-country authority determines that any one of the foregoing minimum standards is not met to its satisfaction, that authority could impose restrictive measures necessary to satisfy its prudential concerns consistent with these minimum standards, including the prohibition of the creation of banking establishments. Several problems posed by the implementation of these minimum standards, together with recommendations for handling them, are discussed in a subsequent joint report of the Basle Committee and offshore banking supervisors (see BCBS, 1996a).

27 This point has been particularly eloquently made in a recent commentary as follows: "the establishment of minimum, internationally-agreed supervisory standards avails nothing if the standards are not strictly and diligently enforced or if a supervisory authority lacks the sophistication or resources necessary to supervise the operations of credit institutions which it has authorised. ... the standards that have been agreed internationally or which, in the case of the EC, have been imposed by law, are merely crude skeletons onto which the intricacies of supervising particular businesses must be grafted: the skeleton is of no use if the muscle and skin grafts do not hold or do not fit, or are not attempted at all." See Dassesse et al. (1994: 164).

28 On bank regulation in East Asia at the outbreak of the financial crisis see UNCTAD (1998, Part One, chapter III, box 3).

29 Principle 6 of the 25 Core Principles is as follows: "Banking supervisors must set prudent and appropriate minimum capital adequacy requirements for banks. Such requirements should reflect the risks that the banks undertake, and must define the components of capital, bearing in mind their ability to absorb losses. At least for internationally active banks, these requirements must not be less than those established in the Basle Accord and its amendments."

30 See BCBS (1996b, Introduction, section 1). A more complete definition of a bank's trading book along the same lines is contained in Article 2 of the EEC's Council Directive of 15 March 1993 on capital adequacy of investment firms and credit institutions (93/6/EEC).

31 The categories of market risk specified under the standardized methodology are those due to interest rates, equity positions, foreign exchange, and commodities. The treatment of derivatives other than options under each of these headings is integrated with that of the underlying positions or instruments in accordance with specified procedures; and that of options consists of three alternatives, of which two (the "simplified" and "scenario" approaches) involve separate calculation of capital requirements for their market risks, while the other (the "delta-plus method") translates option exposure into values equivalent to those used for other items of the trading book for the purpose of calculating capital requirements but also adds on figures to cover option-specific gamma and vega risks, i.e. the risks due to the sensitivity of option values to changes in those of their underlying assets and to changes in the volatility of those values.

32 See, for example, BCBS (1998b: 3–4). The initial proposal of the Basle Committee for an amendment of the Capital Accord to incorporate market risks was based on the standardized methodology alone, and thus would have entailed a much smaller role for banks' own risk modelling. This provoked a highly critical reaction from the industry which pressed for an approach recognizing methods of managing market risk developed by banks as a response to market behaviour. For accounts of the ensuing debate that led to the 1996 Amendment see BCBS (1994: 82–87) and Best (1998: 185–189).

33 Banks' internal controls are a ubiquitous topic of the Basle Committee's statements on different subjects, unsurprisingly since these are often directed as much to contributing to the improvement of these controls as to the development of standards and rules for banking supervision. Nonetheless, the Committee has given its attention to the subject of systems of internal controls as such in its statement (BCBS, 1998d).

34 For a survey of banking crises in several OECD countries during this period see Davis (1992, chapters 6 and 8).

35 This argument is discussed in Dassesse et al. (1994:162).

36 See BCBS (1999b: 27–35). The causes of the contraction of banks' lending in some major OECD countries, including their efforts to increase capital in relation to assets, are also discussed in UNCTAD (1992, Part Two, chapter II, section B). The ultimate macroeconomic effects of increases in banks' risk-weighted capital ratios also depend on such factors as borrowers' access to alternative forms of financing and the success of tighter capital standards in reducing excessive risk taking and thus the likelihood of financial instability.

37 According to estimates of the United States Federal Reserve, outstanding non-mortgage-related, asset-backed securities and asset-backed commercial paper issued through programmes sponsored by the 10 largest United States bank holding companies exceeded 12 per cent of the firms' total risk-weighted assets and 25 per cent of total risk-weighted loans. Such securitization activities are frequently motivated by capital arbitrage (BCBS, 1999b: 25–26).

38 For schematic exemplification see BCBS (1999b, Appendix 1).

39 BCBS (1999b: 25). This evidence is discussed in more detail in BCBS (1999c: 24–25; and Annex 4).

40 One should not overemphasize the autonomous power of a technical group like the Basle Committee, even over its own membership. As Kapstein puts it, the Committee "is not a supra-national organization, and it has no enforcement powers on its own; banking supervision remains the province of national authorities. The committee is only as effective as its member states want it to be" (Kapstein, 1994: 128).

41 A good account of the political as well as the technical dimensions of the process leading to the 1988a Accord is to be found in Kapstein (1994, chapter 5).

42 Evidence on the high volatility of major macroeconomic variables and its relation to banking crises in selected emerging-market countries is surveyed in Goldstein and Turner (1996: 9–14).

43 Concerning the impact of financial turbulence on the Basle Committee's work see Fleming (1999: 29).

44 That this possibility is under consideration was indicated to me during contacts with the regulatory community.

45 BCBS (1999a, para. 18). A diagrammatic illustration of the way in which the new proposals should be applied to banking groups is provided in Annex 1.

46 As the 1988 Accord puts it (in remarks which, of course, antedated the amendment to incorporate market risks): "The framework in this document is mainly directed towards assessing capital in relation to credit risk ... but other risks, notably interest rate risk ..., need to be taken into account by supervisors in assessing overall capital adequacy" (BCBS, 1988a, para. 8). The New Framework elaborates that the 1988 Accord "was primarily concerned with minimum standards to cover credit risk", but "insofar as these capital charges covered other types of risk, these were effectively assumed to be proportional to credit risk" (BCBS, 1999a, para. 13).

47 Concerning the meaning of "OECD countries" see section II.B.

48 The system of Standard and Poor's is selected solely for illustrative purposes. A concordance of this rating system with that of Moody's is provided in Annex A to this paper.

49 In order to sanction countries not providing sufficient financial and economic information, the Basle Committee proposes that, to be eligible for a weight of less than 100 per cent, a country would have to subscribe to the IMF's Special Data Dissemination Standards (SDDS).

50 As in the case of claims on countries, the attribution of a less than 100-per-cent weight to claims on banks would be subject to a supplementary condition, in this case that the supervisor in the bank's country had implemented, or had endorsed and was implementing, the Basle Committee's *Core Principles for Effective Banking Supervision* (BCBS, 1997a).

51 Over the years corporate entities have only exceptionally been accorded ratings or risk premia for their borrowing rates of interest reflecting creditworthiness superior to that of their home countries. But owing to the proliferation of credit enhancements of various kinds, this phenomenon may become more common in future.

52 BCBS, "Amendment to the Basle Capital Accord of July 1998", Press statement, 7 April 1998.

53 Asset securitization is used to transform illiquid financial obligations (such as those linked to mortgages or receivables on credit cards or in the accounts of corporations) into tradeable asset-backed securities. Several techniques can be employed for this purpose including the establishment of "special purpose vehicles" (SPVs) for the issuance of high-quality securities with ratings benefiting from various forms of credit enhancement, such as over-collateralization and third-party guarantees, and the creation of credit tiers with differentiated pricing designed to attract demand from different categories of investor. For a fuller discussion see Caouette et al. (1998, chapter 23).

54 Unsurprisingly, unrated countries include a large number of low-income ones. According to the Meltzer Commission Report (IFIAC, 2000: 52), more than two thirds of IDA loans went to countries without access to international financial markets.

55 I am indebted to an exercise of Colin Miles of the United Kingdom's Financial Services Authority showing winning and losing countries in the event that the risk weights of the 1988 Capital Accord were replaced by the scheme linking their current ratings from Standard and Poor's to the proposed new weights (IDS, 1999, table 1).

56 The need for intensified IMF surveillance of financial-sector issues was a recommendation of the Interim Committee in its *Communiqué* of 16 April 1998.

57 See the discussion of assessment criteria for Principle 21 ("Banking supervisors must be satisfied that each bank maintains adequate records drawn up in accordance with consistent accounting policies and practices that enable the supervisor to obtain a true and fair view of the condition of the bank and the profitability of its business, and that the bank publishes on a regular basis financial statements that fairly reflect its condition") in BCBS, (1999d: 45–46).

58 Concerning differences in disclosure standards for banks in a group of mainly industrialized countries see Cornford (1999, section III).

59 It should also be noted that the current state of the art is still not well developed regarding correlations between deteriorations in the credit risk of different counter parties (and thus regarding the effects of contagion on the danger of default) which are a frequent feature of credit cycles (BCBS, 1999e: 48).

60 As an analysis of the New Framework in the *Institutional Investor* puts it: "But the banks are well aware that ... the job of persuading regulators to accept the use of credit risk models ... for capital adequacy purposes will take years" (Fleming, 1999: 33).

61 On the basis of a survey of the London market for credit derivatives the British Bankers' Association estimated its size in notional terms to be about $20 billion in October 1996, and forecast that this figure would rise to $100 billion by 2000. See BBA (1997: 14).

62 For a succinct account of the pricing and closely related process of hedging credit derivatives see Caouette et al. (1998: 316–320).

63 See Caouette et al. (1998: 13). As a recent treatise on derivatives regulation puts it: "While the regulators have managed to classify the other forms of derivative, the credit derivative has posed different problems (for example in relation to its categorisation for capital adequacy purposes). The principal difficulties revolve around the intangible nature of the credit derivative as a separate category of derivative... the credit derivative can be structured as a swap or option and may relate to debt, equities, or commodities" (Hudson, 1998: 84).

64 The issues discussed in section VI were selected for their importance to developing and transition economies. However, some of them, in particular, those related to credit rating agencies, pose very similar problems for industrialized countries.

65 Notches are gaps between ratings. For example, the gap between a rating from Standard and Poor's between A+ and A- is two notches. See Annex A.

66 Announcements in studies concerning this subject cover not only those of actual changes in ratings but also those classified under "outlook" by Standard and Poor's or "watchlist" by Moody's. For the purposes of analysis these categories may be disaggregated.

67 See Cantor and Packer (1996); Larrain et al. (1997); Reisen and Von Maltzan (1998, 1999). These studies deploy mostly very similar techniques of analysis, but those of the authors associated with OECD Development Centre are based on larger samples of announcements, which include the Mexican and Asian crises.

68 See Cantor and Packer (1996: 44, 46). There are similar findings concerning yield spreads at the time of announcements in the studies of the authors associated with the OECD, especially for borrowers from emerging markets (though they are less marked in the 1999 study).

69 Thus the 1997 study of Larrain, Reisen and von Maltzan finds not only more pronounced movements in the yield spread for borrowers from emerging markets than for the whole sample during the period before the announcement, but also an actual reversal of the movement afterwards, a result suggesting some market overshooting (Larrain et al., 1997: 20–21). There are similar findings in the 1998 and 1999 studies of the OECD authors, although the pattern of the movement in spreads becomes less clear as announcements are disaggregated into negative and positive under "watchlist/outlook", actual upgrades, and actual downgrades.

70 The 1997 and 1999 studies of the OECD authors contain Granger-causality tests of the impact of ratings on yield spreads and vice versa which reject the hypothesis of one-way causality, though in the case of the latter study this result ceases to hold if the sample of announcements is disaggregated by rating agency – in one case lagged yield spreads actually determining ratings (Reisen and von Maltzan, 1999: 17).

71 See, for example, Fleming (1999: 32), who notes that agencies' unregulated status might be compromised by such a role – a prospect which elicits mixed feelings amongst the agencies themselves.

72 Elements other than the use of agencies' ratings to determine risk weights are also capable of reinforcing such movements. For example, the discussion of the shortcomings of the 1988 Accord in section IV.B points to the possibility that the imposition of capital standards is capable of depressing banks' lending, and the resulting contraction may coincide with recession, thus reinforcing it. However, such effects can be largely or completely avoided by flexibility in the way new standards are implemented. Another way in which capital standards such as those enunciated by the Basle Committee are capable of depressing lending in a recession is a consequence of the recession's effect on banks' loan loss reserves: the recession is quite likely to lead to the need for higher specific loan less provisions against particular loans (which do not count as capital eligible for meeting regulatory requirements) at the expense of general loan loss reserves (that do count as part of the bank's capital base to which the volume of a bank's lending is related).

73 Other statements of the Basle Committee which are arguably of special importance for the development of global standards for banks' regulation and supervision are the *Core Principles for Effective Banking Supervision* (BCBS, 1997a), and *Minimum Standards for the Supervision of International Banking Groups and their Cross-Border Establishments* (BCBS, 1992a) – whose relation to standards intended to accompany the granting of market access to foreign banks is discussed in section III.C.

74 A frequently cited brief account of the origin of the Basle Committee is that contained in the paper of its chairman, W.P. Cooke (1981).

75 The need for extending the Basle Committee's outreach is, of course, accepted by its member countries. As a senior United Kingdom supervisor put it in connection with the work on revised capital standards, the Basle Committee's "outreach to a worldwide audience will need to be demonstrated again on the New Capital Adequacy Framework if that is to be a framework for all, and not simply for internationally active banks in the G-10" (Evans, 2000: 18). The question left open by such statements is the extent to which, and the methods whereby, this extended outreach should involve broader participation in preparation of the Committee's standards.

76 This suggestion seems to be in accord with the spirit of the recommendation of the Meltzer Commission that "any expansion of membership in ...committees or groups [of the BIS] should be undertaken gradually and deliberately to avoid disruption of the information exchange that central bankers find valuable" (IFIAC, 2000: 79).

77 One (although not the only envisageable) way of approaching this problem would consist of providing for the participation of developing and transition economies in the work of the Committee on a rotating basis, as suggested in Griffith-Jones and Kimmis (1999: 44).

78 See BCBS (1999c: 14). For a succinct account of the way in which market and credit risk (in the form of a flight to quality) interacted in bond markets in the aftermath of the Russian crisis in 1998 see BIS (1999: 88–91).

79 "The current holy grail in risk management is to create one big integrated model to capture all the different types of risks banks face – 'getting one number for risk'. This is a gigantic task and is like trying to hit a moving target – risk management, both conceptually and in practice, is moving so fast. The first step, though, is to complete the modelling of credit risk and then fuse these models together with market risk models" (Weller, 1999: 38).

80 Adoption of the internal-rating based approach to capital requirements (described in section V.D) may also make difficult the achievement of the objective of competitive equality among banks, unless the standards imposed by regulators are uniform across jurisdictions.

81 On the way in which differences in regulatory regimes have contributed to the expansion of both international banking and international capital movements see Dale (1984: 10–16).

82 These limits are illustrated in the following interesting comment of Q. Hermans, the Governor of the Central Bank of Botswana, quoted in Goodhart et al. (1998: 221–222): "I will mention two or three of the sorts of things that I think need to be addressed. One is the question that in many small or emerging countries the banks are largely subsidiaries of large metropolitan banks. What are the special kinds of issues that that poses? One is that when you send in your own country banking supervisors, the top management of the bank say 'Why do you bother? We are Bank A, and there is adequate supervision of Bank A in the UK, and this is paperwork that's a nuisance to us, and you are second-guessing management - we have a very powerful board in the UK that does that'. That is in my experience totally incorrect. The management of the subsidiaries of large metropolitan banks in countries like Botswana is inadequate, and there are two or three sets of problems that we have experienced time and time again. One is that there are no internal auditors in the subsidiaries. They rely on a visit by an internal auditor from Head Office who comes out once a year for one week. That's wholly inadequate. A similar problem is that the external auditors go through the motions of saying that the statement of assets and liabilities reflects the true condition of the bank. They don't make subjective comments on the adequacy of the provisioning of bad debts, for example. If the internal and external auditors are not asking those questions, if you have a weak local board with very limited authority, that does mean that the domestic supervisors have got to play a different kind of role. They cannot simply rely on internal mechanisms."

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