

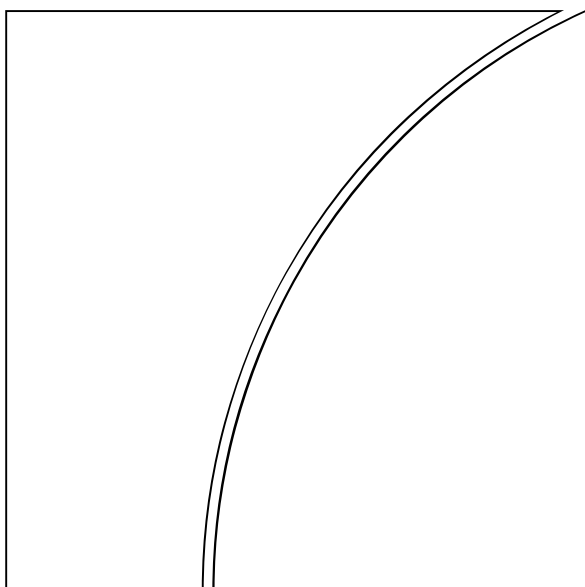
# Basel Committee on Banking Supervision

Consultative Document

## **Overview of The New Basel Capital Accord**

*Issued for comment by 31 May 2001*

January 2001



BANK FOR INTERNATIONAL SETTLEMENTS

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## EXECUTIVE SUMMARY

1. The Basel Committee on Banking Supervision (the Committee)<sup>1</sup> has decided to undertake a second round of consultation on more detailed capital adequacy framework proposals that, once finalised, will replace the 1988 Accord, as amended (hereafter referred to as the 1988 Accord).<sup>2</sup> This consultative package consists of three parts, each of which is described at the end of the Executive Summary.

2. Comments received on the proposals set out in the June 1999 Consultative Paper<sup>3</sup> and ongoing dialogue with the industry and supervisors world-wide have greatly assisted the Committee in further developing more risk-sensitive standardised and internal measurement approaches to capital adequacy. The new framework is intended to align capital adequacy assessment more closely with the key elements of banking risks and to provide incentives for banks to enhance their risk measurement and management capabilities.

3. The Committee's ongoing work has affirmed the importance of the three pillars of the new framework: minimum capital requirements, a supervisory review process and effective use of market discipline. The pillars are mutually reinforcing, working together to contribute to a higher level of safety and soundness in the financial system. The Committee stresses the need for full implementation of all three pillars and plans to play an active role with fellow supervisors – for example, through enhanced information exchange – to achieve this goal.

4. The Committee recognises that the New Basel Capital Accord (the New Accord) is more extensive and complex than the 1988 Accord. This is the result of the Committee's efforts to develop a risk-sensitive framework that contains a range of new options for measuring both credit and operational risk. In its simplest form, however, this more risk-sensitive framework is only slightly more complex than the 1988 Accord. Moreover, in the New Accord, the Committee is emphasising the role of supervisory review process and market discipline as essential complements to minimum capital requirements. The Committee believes that the complexity of the new framework is a natural reflection of the advancement in the banking industry. It is also responsive to the industry's reactions to the 1988 Accord.

5. The objectives to be attained through revision of the minimum capital standards remain essentially as stated in the June 1999 Consultative Paper. Consistent with these objectives, a key element of the proposed revisions to the 1988 Accord is a greater emphasis on banks' own assessment of the risks to which they are exposed in the calculation of regulatory capital charges.

6. The primary changes to the minimum capital requirements set out in the 1988 Accord are in the approach to credit risk and in the inclusion of explicit capital requirements for operational risk. A range of risk-sensitive options for addressing both types of risk is elaborated. For credit risk, this range begins with the standardised approach and extends to

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<sup>1</sup> The Basel Committee on Banking Supervision is a committee of banking supervisory authorities, which was established by the central bank governors of the Group of Ten countries in 1975. It consists of senior representatives of bank supervisory authorities and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States. It usually meets at the Bank for International Settlements in Basel, where its permanent Secretariat is located.

<sup>2</sup> *International Convergence of Capital Measurement and Capital Standards*, Basel Committee on Banking Supervision (July 1988). All Basel Committee papers referred to in this document can be obtained from the BIS website at <http://www.bis.org>.

<sup>3</sup> *A New Capital Adequacy Framework*, Basel Committee on Banking Supervision (June 1999).

the “foundation” and “advanced” internal ratings-based (IRB) approaches. A similar structure is envisaged for operational risk. These evolutionary approaches will motivate banks to continuously improve their risk management and measurement capabilities so as to avail themselves of the more risk-sensitive methodologies and thus more accurate capital requirements. The Committee has decided to treat interest rate risk in the banking book under Pillar 2 (supervisory review process). Given the variety of underlying assumptions needed, the Committee believes that a better and more risk-sensitive treatment can be achieved through the supervisory review process rather than through minimum capital requirements.

7. With regard to the level of overall capital, the Committee’s primary goal is to deliver a more risk-sensitive standardised approach that on average neither raises nor lowers regulatory capital for internationally active banks. For the IRB approaches, the Committee’s ultimate goals are to ensure that the regulatory capital generated is sufficient to address underlying credit risks and to provide capital incentives relative to the standardised approach.

8. Although the new framework’s focus is primarily on internationally active banks, its underlying principles are intended to be suitable for application to banks of varying levels of complexity and sophistication. More than 100 countries have adopted the 1988 Accord, and the Committee has consulted with supervisors world-wide in developing the new framework. The goal of this effort has been to ensure that the principles embodied in the three pillars of the new framework are generally suitable to all types of banks around the globe. The Committee therefore expects the New Accord to be adhered to by all significant banks after a certain period of time.

9. To ensure that risks within the entire banking group are considered, the revised Accord will be extended on a consolidated basis to holding companies of banking groups. Also, the Committee confirms that the definition of capital is not being modified and that the minimum ratios of capital to risk-weighted assets including operational and market risks will remain 8% for total capital. Tier 2 capital will continue to be limited to 100% of Tier 1 capital.

10. In the standardised approach to credit risk, exposures to various types of counterparties, e.g. sovereigns, banks and corporates, will be assigned risk weights based on assessments by external credit assessment institutions. The principal changes from the June 1999 proposals are to make the approach more risk sensitive, for example, through the inclusion of an additional risk bucket (50%) for corporate exposures. Further, certain categories of assets have been identified for the higher risk bucket (150%).

11. The Committee believes that the best way forward on banks’ use of internal rating systems for capital adequacy purposes is through the adoption of an evolutionary IRB approach, as mentioned above. To this end, a “foundation” IRB approach is being made available wherein banks meeting robust supervisory standards will input their own assessment of the probability of default associated with the obligor. Estimates of additional risk factors, such as loss incurred by the bank given a default and the expected exposure at default, will be derived through the application of standardised supervisory estimates.

12. An “advanced” IRB approach will be available for banking organisations that meet more rigorous supervisory standards. Under this approach, more of the risk components mentioned above will be estimated internally by a bank. However, the Committee is stopping short of permitting banks to calculate their capital requirements on the basis of their own portfolio credit risk models. The Committee welcomes further developments in risk management practices and modelling that may pave the way towards a transition to portfolio credit risk modelling in the future.

13. The Committee has been examining the capital treatment of credit risk mitigation techniques, including collateral, guarantees and credit derivatives, and netting. The consultation process has confirmed the view that improved risk sensitivity in minimum capital requirements with respect to greater recognition of such techniques can provide positive incentives to banks to improve risk measurement and management of mitigants. While the new proposals provide capital reductions for various forms of transactions that reduce risk, they impose minimum operational standards in recognition that poor management of operational risks (including legal risks) could render such mitigants of effectively little or no value. Further, although partial mitigation is rewarded, banks will be required to hold capital against residual risks.

14. Although asset securitisations can serve as an efficient way to redistribute a bank's credit risk to other banks and non-bank investors, the Committee has become increasingly concerned about some banks' use of such structures to avoid maintaining capital commensurate with their risk exposures. The Committee has developed for consultation standardised and IRB approaches for treating the explicit risks facing banks in traditional securitisations. Operational, disclosure and minimum capital requirements relating to these approaches are set out in the Supporting Document *Asset Securitisation*. The Committee has also identified a limited number of issues requiring additional work, which may result in changes to the proposed capital treatment for asset securitisation. These issues relate to implicit or residual risks, synthetic securitisation transactions, attaining greater risk-sensitivity under the IRB foundation and advanced approaches and attaining the appropriate degree of economic consistency between the IRB treatment of securitisation and various forms of credit risk mitigation. These issues are discussed further in the Supporting Document.

15. Drawing on extensive discussions with the industry, the Committee proposes a range of approaches to capital requirements for operational risk. Three approaches of increasing sophistication are currently proposed (basic indicator, standardised and internal measurement). In order to use the more sophisticated approaches, banks will need to demonstrate compliance with increasingly exacting operational risk management standards. In each approach, the capital charge will be based on one or a number of indicators of the amount of operational risk confronting the bank. Ongoing consultation with the industry will be vital for establishing accurate calibration of the minimum capital requirements for this risk. Coordinated industry-wide data collection and sharing based on consistent definitions of loss, risks and business lines will assist the Committee in developing the advanced approaches to operational risk.

16. The supervisory review process (Pillar 2) is a critical complement to the minimum capital requirements set out in Pillar 1 and the market discipline incentives proposed in Pillar 3. Under the second pillar of the New Accord, supervisors should ensure that each bank has sound internal processes in place to assess the adequacy of its capital based on a thorough evaluation of its risks. The new framework stresses the importance of bank's management developing an internal capital assessment process and setting targets for capital that are commensurate with the bank's particular risk profile and control environment.

17. Supervisors would be responsible for evaluating how well banks are assessing their capital adequacy needs relative to their risks, including whether banks are appropriately addressing the relationship between different types of risks. In doing so, supervisors would draw on, among other considerations, their knowledge of best practice across institutions and the minimum criteria attached to approaches to regulatory capital assessment. Having carried out the review process described above, supervisors should take appropriate action if they are not satisfied with the results of the bank's own risk assessment and capital allocation.

18. The Committee understands that supervisors may need to augment and reallocate their resources to support the supervisory review element of the more advanced approaches to Pillar 1. It nonetheless believes that the benefits of a capital adequacy framework that is more sensitive to risk and promotes strong risk management practices will justify the need for such adjustments.

19. The Committee regards the bolstering of market discipline through enhanced disclosure as a fundamental part of the New Accord. The Committee believes the disclosure requirements and recommendations set out in the second consultative package will allow market participants to assess key pieces of information on the scope of application of the revised Accord, capital, risk exposures, assessment and management processes, and capital adequacy of banks. The risk-sensitive approaches developed by the Committee rely extensively on banks' internal methodologies giving banks more discretion in calculating their capital requirements. Separate disclosure requirements are put forth as prerequisites for supervisory recognition of internal methodologies for credit risk, credit risk mitigation techniques and asset securitisation. In the future, disclosure prerequisites will also attach to advanced approaches to operational risk. In the view of the Committee, effective disclosure is essential to ensure that market participants can better understand banks' risk profiles and the adequacy of their capital positions.

20. There are a number of areas where the Committee will continue its work with the industry and other interested parties. The areas needing additional work are identified throughout the consultative package.

21. Comments on the second consultative package should be submitted by **31 May 2001** to relevant national supervisory authorities and central banks and may also be sent to the Basel Committee on Banking Supervision at the Bank for International Settlements, CH-4002 Basel, Switzerland. Comments are also invited via e-mail: [BCBS.Capital@bis.org](mailto:BCBS.Capital@bis.org)<sup>4</sup> or by fax: +41 61 280 9100 and should be directed to the attention of the Basel Committee Secretariat. To increase transparency, the Committee intends to publish on its website comments received during the second consultative period. Comments that are clearly marked as confidential will not be published.

22. It is envisioned that the revised Accord will be implemented in member jurisdictions in 2004. This timetable will accommodate national rulemaking procedures and allow adaptation of banks' internal systems, supervisory processes and regulatory reporting.

## DESCRIPTION OF THE CONSULTATIVE PACKAGE

23. The consultative package comprises three parts. The first is this "*Overview of The New Basel Capital Accord*", which discusses the rationale for the key components of the new framework. It also highlights the more significant changes from the 1999 consultation proposals and identifies particular areas where the Committee is seeking input and feedback. The second component is the document "*The New Basel Capital Accord*." This document, once finalised, will be the definitive basis for the rules that member countries will adopt to revise the 1988 Accord.

24. The third component comprises a set of Supporting Documents. These provide background information and technical details regarding the analysis that the Committee

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<sup>4</sup> The Committee asks all interested parties to use this e-mail address only for submitting comments and not for correspondence.

conducted in developing these proposals and, in some places, discuss the Committee's preliminary thoughts on areas where it intends to develop specific proposals during consultation. The discussion in the Supporting Documents is intended to supplement, but in no way replace, the proposals in *The New Basel Capital Accord* document. The Supporting Documents cover the following areas:

- The Standardised Approach to Credit Risk
- The Internal Ratings-Based Approach to Credit Risk
- Asset Securitisation
- Operational Risk
- Pillar 2: Supervisory Review Process
- Management and Supervision of Interest Rate Risk in the Banking Book
- Pillar 3: Market Discipline

# **OVERVIEW OF THE NEW BASEL CAPITAL ACCORD**

## **1. INTRODUCTION**

25. The Basel Committee on Banking Supervision (the Committee) is releasing a second consultative package on the New Accord. This consultative package contains refined proposals for the three pillars of the New Accord – minimum capital requirements, supervisory review and market discipline.

26. The Committee recognises that the New Accord is more extensive and complex than the 1988 Accord. This is the result of the Committee's efforts to develop a risk-sensitive framework that contains a range of new options for measuring both credit and operational risk. In its simplest form, however, this more risk-sensitive framework is only slightly more complex than the 1988 Accord. Moreover, in the New Accord, the Committee is emphasising the role of supervisory review process and market discipline as essential complements to minimum capital requirements. The Committee believes that the complexity of the new framework is a natural reflection of the advancement in the banking industry. It is also responsive to the industry's reactions to the 1988 Accord.

27. The Committee wishes to encourage discussion of the New Accord. Accordingly, interested parties are invited to comment on all aspects of the second consultative package and, in particular, on those key elements of the new framework that are presented in more depth than in the June 1999 Consultative Paper. These elements include the internal ratings-based approach, the use of external credit assessments in the standardised approach, credit risk mitigation techniques, asset securitisation, the treatment of operational risk, supervisory review and market discipline. To facilitate the consultative process, the documents in this package pose a number of specific questions.

28. It is envisioned that the revised Accord will be implemented in member jurisdictions in 2004. This timetable will accommodate national rule-making procedures and allow adaptation of banks' internal systems, supervisory processes and regulatory reporting. In addition, built into the New Accord are certain transitional provisions; these are discussed in the last section of this paper.

## **2. OBJECTIVES OF THE NEW BASEL CAPITAL ACCORD**

29. In its June 1999 Consultative Paper, the Committee outlined its objectives in developing a comprehensive approach to capital adequacy. As the Committee continues to refine the new framework, it maintains the belief that:

- The Accord should continue to promote safety and soundness in the financial system and, as such, the new framework should at least maintain the current overall level of capital in the system;
- The Accord should continue to enhance competitive equality;
- The Accord should constitute a more comprehensive approach to addressing risks;
- The Accord should contain approaches to capital adequacy that are appropriately sensitive to the degree of risk involved in a bank's positions and activities; and



- The Accord should focus on internationally active banks, although its underlying principles should be suitable for application to banks of varying levels of complexity and sophistication.

30. These safety and soundness objectives cannot be achieved solely through minimum capital requirements. The Committee emphasises that the New Accord consists of three mutually reinforcing pillars – minimum capital requirements, supervisory review and market discipline. Taken together, the three pillars contribute to a higher level of safety and soundness in the financial system. The Committee recognises that ultimate responsibility for managing risks and ensuring that capital is held at a level consistent with a bank's risk profile remains with that bank's management.

31. The three pillars are a package. Therefore, the revised Accord cannot be considered fully implemented if all three pillars are not in place. Minimum (or partial) implementation of one or two of the pillars will not deliver an adequate level of soundness. Supervisors must at a minimum implement Pillar 1. However, if in certain jurisdictions it is not at present possible to implement all three pillars fully, the Committee recommends that supervisors consider more intensive use of the other pillars. For example, supervisors could use the supervisory review process to encourage improvement in transparency in instances where supervisors do not have authority to require certain disclosures.

32. The Committee emphasises, however, that such arrangements should be a temporary measure and that balanced implementation of all three pillars is the permanent solution.

33. The Committee intends to develop a framework to exchange information amongst member countries – at least annually – on the status of implementation of the different pillars and on the exercise of discretion by countries under various elements of Pillar 1 requirements. This approach will allow supervisors to benefit from each other's experiences and will promote a balanced implementation between countries.

34. The Committee also believes that proper implementation of the revised Accord must take account of the financial, accounting, legal, supervisory and market environment in which banks operate. Supervisors should be particularly sensitive to these considerations as they contemplate allowing banks to use the more advanced techniques for assessing credit and operational risk.

35. To secure the objective of prudentially sound, incentive-compatible and risk sensitive capital requirements, the Committee is providing for a progressive, evolutionary approach to the calculation of Pillar 1 capital charges, similar in nature to that of the 1996 Market Risk Amendment.<sup>5</sup> This evolutionary approach allows banks that meet incremental minimum requirements to avail themselves of more risk-sensitive methodologies in calculating regulatory capital. The Committee hopes that in addition to providing incentives for individual banks this approach will encourage ongoing improvement in risk management practices at an industry-wide level. The next paragraphs discuss this evolutionary approach with respect to credit and operational risk capital charges.

36. Consistent with the objective of providing greater risk sensitivity, the Committee is putting forward revised proposals for a standardised approach for credit risk capital charges. Further, consistent with the goal of placing more emphasis on banks' internal assessments of the risks to which they are exposed, the Committee is putting forward specific proposals for

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<sup>5</sup> *Amendment to the Capital Accord to incorporate Market Risks*, Basel Committee on Banking Supervision (January 1996).

the new internal ratings-based framework for credit risk. This framework explicitly recognises more elements of credit risk (for example, the creditworthiness of the obligor, the structure and maturity of the transaction, and the concentration of loans to a particular borrower or borrower group) in the regulatory capital calculation. The “foundation” approach to internal ratings incorporates in the capital calculation the bank’s own estimates of the probability of default associated with the obligor, subject to adherence to rigorous minimum supervisory requirements; estimates of additional risk factors would be derived through the application of standardised supervisory rules. In the “advanced” IRB approach, banks that meet even more rigorous minimum requirements will be able to use a broader set of internal risk measures for individual exposures.

37. The “evolutionary” aspect of the Pillar 1 proposals for credit risk can be understood in a number of ways: First, over time and at the industry level, the Committee hopes to see more banks moving from the standardised approach to the IRB approach. Within the IRB approach, the Committee expects to see banks moving from the foundation to the advanced approaches, as their risk management capabilities develop and enable them to meet the more rigorous minimum requirements.

38. Lastly, over time, the Committee believes these improvements in risk measurement and management will pave the way to an approach that uses full credit risk models as a basis for regulatory capital purposes. The current proposals, however, stop short of permitting such an approach. The Committee explored the use and application of credit risk models in a report published in 1999.<sup>6</sup> It concluded at that stage that it was too early to use the output of such models as a basis for setting minimum capital requirements. The Committee continues to believe this to be the case;<sup>7</sup> even the most advanced and risk-sensitive version of the IRB approach will fall short of making bank-specific adjustments to reflect risk correlation between different borrowers.

39. The evolutionary approach is also an element of the Committee’s proposals for operational risk. The Committee expects that banks will evolve through the spectrum of approaches proposed. In addition, the Committee anticipates that the approaches themselves will evolve as experience and data develop.

40. The Committee has also considered the argument that a more risk-sensitive framework has the potential to amplify business cycles. The Committee believes that the benefits of a risk-sensitive capital framework outweigh this potential concern.

41. The objective of greater risk sensitivity has received near-universal approval. The 1988 Accord, which does not adequately reflect changes in risk, creates incentives for banks to make high-risk investments that may contribute to cyclicity over the business cycle. In so doing, the Accord may understate the risks and hence overstate the capital adequacy of banks.

42. For the overwhelming majority of banks, a buffer of capital in excess of minimum regulatory capital requirements is held in part because it is expensive to raise capital in

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<sup>6</sup> *Credit Risk Modelling: Current practices and applications*, Basel Committee on Banking Supervision (April 1999)

<sup>7</sup> The main deficiencies identified by the Committee in using credit risk models as a basis for minimum regulatory capital requirements related to the quality of data and the ability of banks and supervisors to validate model outputs. Internal rating systems are a key input in many credit risk models and in this respect these issues – data quality and validation – are as important for IRB as they are for credit risk modelling. However, the Committee believes that these deficiencies can be overcome in the context of an IRB approach through the development of rigorous minimum requirements that banks must meet in establishing the inputs to and outputs of their internal rating systems, and by ruling out at this stage banks’ own assessments of portfolio effects such as concentration and diversification.

difficult economic times. In a risk-sensitive capital adequacy framework, banks will continue to hold capital buffers and therefore the impact of minimum capital requirements on lending decisions should not be overestimated.

43. Nevertheless, the Committee considers it important that the regulatory capital measures do not reflect undue optimism about borrower prospects at the top of the economic cycles. This will be particularly important in the IRB approaches, which exhibit greater risk sensitivity than the standardised approach. That is why the Committee stresses the need for banks to have sufficiently long runs of data that enable them to assess how well borrowers have withstood normal business stresses and to factor these assessments into ratings. It is also why the Committee urges banks to conduct stress testing (e.g. on the robustness of collateral values).

44. The Committee is aware of the potential impact of provisioning practices on capital adequacy. In this regard, it is currently contemplating work on methods for addressing losses that are expected but have not yet materialised.

45. An important objective of the Committee is for the New Accord to focus on internationally active banks, although its underlying principles should be applicable to banks of varying levels of complexity and sophistication. More than 100 countries have adopted the 1988 Accord and the Committee has consulted with supervisors world-wide in developing the New Accord. This outreach effort ensures that the principles embodied in the three pillars of the revised Accord are generally suitable to all types of banks around the globe. The Committee therefore expects the New Accord to be adhered to by all significant banks after a certain period of time. The Committee recognises that effective implementation of the three pillars may pose challenges for many supervisors, including those in its member countries. Accordingly, the Committee plans to work with fellow supervisors world-wide - for example, through enhanced information exchange - to achieve the goal of full implementation of the New Accord.

### **3. OVERALL CAPITAL**

46. Regarding the overall level of regulatory capital resulting from its proposals, the Committee believes it is important to be as clear as possible about its ultimate intentions. In connection with the standardised approach, the Committee desires neither to produce a net increase nor a net decrease - on average - in minimum regulatory capital, after accounting for operational risk. The Committee well recognises the difficulty in assessing the “average” impact of its proposals across a diverse range of internationally active banks. Moreover, there remains substantial uncertainty about the impact of the proposed revisions in several areas, such as credit risk mitigation and operational risk.

47. During the consultation period, the Committee aims to obtain a better and more complete picture of the impact of its proposed revisions to the standardised approach. In addition, the Committee’s work on retail portfolios in the context of the IRB approach during this period should add to its understanding of the risks inherent in these portfolios. The Committee is prepared to make such further improvements to the standardised approach, as may be warranted in the light of this work.

48. In respect of the IRB approaches, the Committee’s ultimate goals are to ensure that the overall level of regulatory capital generated is sufficient to address the underlying credit risks and is such that it provides capital incentives relative to the standardised approach (e.g. for the foundation IRB approach in the aggregate, a reduction in risk-weighted assets of 2% to 3%). The Committee believes that the achievement of these goals is possible in the

context of its commitment to viewing regulatory capital as a minimum standard supplemented by Pillar 2 and Pillar 3.

49. With regard to the advanced IRB approach, the Committee believes that further information on the implementation of this approach will be necessary to assess the extent of the capital incentive relative to the foundation IRB approach. During the first two years following the date of implementation, the Committee is proposing a floor on the advanced IRB approach equal to 90% of the capital requirements which would result under (a simplified calculation of) the foundation IRB approach. During this two-year period, the Committee will review the results of the capital requirements calibrated under the advanced approach.

50. Because the majority of the structural aspects of the IRB approach have now been clarified in the context of the present proposals, the Committee is hopeful that it will be able to engage in a meaningful, structured dialogue with the industry and other interested parties on the calibration of the IRB approach during the consultative period. The Committee is aware that the impact of its proposals could vary significantly depending on the quality distribution of an organisation's loan portfolio, the use of credit risk mitigation techniques and the impact of the proposals for the retail portfolio and for operational risk. Because the Committee's current information in regard to these elements is limited, it views additional efforts related to the IRB calibration process as essential.

51. In addition, the Committee notes that the substantial risk sensitivity of the IRB approaches could imply changes over time in the capital required for particular assets as their quality varies over the course of an economic cycle. The Committee strongly believes that this implies the need for banks to address potential increases in regulatory requirements by performing stress testing and establishing additional capital cushions of their own (i.e. through Pillar 2) during periods of economic growth. In the longer run, the Committee encourages banks to consider the merits of building such stress considerations directly into their internal ratings framework. The Committee also believes that these issues bear on the choice of IRB calibration and hopes to include such considerations within the scope of its dialogue with the industry on this question.

52. Despite the uncertainty surrounding the choice of an IRB calibration, the Committee believes that a starting point for dialogue is required. The Committee has formulated a proposal, with emphasis on ensuring that the regulatory capital will cover the underlying risks with a high level of confidence. The Committee does not have enough information at the moment to assess the full impact of the proposal. The tentative risk-weights for the whole range of assets are provided in *The New Basel Capital Accord*. These tentative risk weight figures are based on a calibration that would produce a capital requirement of 8% for an asset with a 0.7% probability of default (PD), 50% loss given default (LGD) and a three-year maturity.

53. The Committee wishes to emphasise that this calibration is a starting point for additional dialogue. The Committee intends to pursue such a dialogue in a meaningful, structured fashion that fully reflects its desire to achieve a prudential level of overall capital. Such a level of capital would be consistent with the Committee's goal of covering the underlying risk at a reasonable level of confidence and providing a modest incentive to adopt more sophisticated risk management methods. The Committee will provide a revised calibration in the final package. This work will draw from the ongoing efforts of the Committee. These efforts will include a quantitative impact study, which the Committee will conduct in cooperation with the industry. This study will assess the impact of the New Accord, including the effect of an operational risk capital requirement and credit risk mitigation techniques. Additionally, in the context of the IRB approach, the calibration in the final package will consider the Committee's ongoing work on the treatment of retail, project finance and equity exposures, securitisation and maturity.

## **4. DESCRIPTION OF THE FRAMEWORK**

### **(A) SCOPE OF APPLICATION**

54. The Committee's ongoing work has identified the need for market participants to better understand how the New Accord applies to banking organisations. Accordingly, the Committee is clarifying the scope of application of the revised Accord.

55. Since the development of the 1988 Accord, the breadth of banking activities has been extended and the development of complex corporate ownership structures has accelerated. Additionally, there are different national practices in determining the consolidated level at which capital adequacy requirements apply. In recognition of these trends, the Committee believes it is necessary to define clearly how the New Accord applies to banking organisations.

56. To ensure that risks within the entire banking group are considered, the revised Accord will be extended to include, on a fully consolidated basis, holding companies that are parents of groups that are predominantly banking groups. Application of capital adequacy requirements on a consolidated basis only at the highest level within a banking group is not sufficient to ensure that capital is immediately available to absorb losses and, thus, protect depositors at each bank within a banking group. To address this issue, the Committee is specifying that the Accord will also apply on a sub-consolidated basis to all internationally active banks at every tier below the top banking group level. The Committee believes that the combination of the fully consolidated approach at the top level within banking groups and at lower levels on a sub-consolidated and/or stand-alone basis is the best way to preserve the integrity of capital and to eliminate double gearing<sup>8</sup> in a banking group.

57. Banks have increasingly expanded into other areas of financial activity, specifically the securities and insurance industries. To maximise its effectiveness, the New Accord should capture through consolidation, to the greatest extent possible, all banking and other relevant financial activities conducted within banking groups. However, there may be instances where it is not feasible or desirable to consolidate certain securities or other regulated financial entities. Techniques for treating such entities are set out in part 1 of the New Accord.

58. With respect to insurance subsidiaries, the revised Accord's requirements will not specifically address insurance risks and, so, the consolidation of insurance subsidiaries under the New Accord would not be appropriate. A bank that owns an insurance subsidiary bears the full entrepreneurial risks of the subsidiary and should recognise on a group-wide basis the risks included in the whole group. When measuring regulatory capital for banks, the Committee believes that at this stage it is, in principle, appropriate to deduct banks' investments in insurance subsidiaries. Alternative approaches that can be applied should in any case include a group-wide perspective for determining capital adequacy and avoid double counting of capital.

59. Due to issues of competitive equality, some G10 countries will retain their existing treatment as an exception to the approaches described above and introduce risk aggregation only on a consistent basis to that applied domestically by insurance supervisors for insurance

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<sup>8</sup> Double gearing occurs whenever one entity holds regulatory capital issued by another entity within the same group and the issuer is also allowed to count the capital in its balance sheet. In that situation, capital of the group raised from external sources is effectively recognised twice, for example, once by the parent and once by the subsidiary.

firms with banking subsidiaries. The Committee invites insurance supervisors to further develop and adopt approaches that comply with the above standards.

60. The Committee has considered how banks' risks relative to significant commercial investments should prudently be treated for capital purposes. Such commercial investments have the potential to pose significant risk to a banking group since they may create incentives for a bank to bolster the financial condition of the commercial enterprise (e.g. by making loans or injecting more capital). For these reasons, *The New Basel Capital Accord* paper proposes deducting from banks' capital any significant investments in commercial entities that exceed certain thresholds.

61. The ongoing development of diversified financial groups that undertake a range of activities warrants continued efforts to align the capital standards imposed by banking, securities and insurance supervisors in order to assist in the assessment of conglomerate-wide capital adequacy. At the diversified financial group level, supervisors are encouraged to apply the principles and techniques developed by the Joint Forum.<sup>9</sup>

## **(B) PILLAR 1: MINIMUM CAPITAL REQUIREMENTS**

62. The Committee's proposals for minimum capital requirements are based on fundamental elements of the 1988 Accord: a common definition of regulatory capital that remains unchanged and minimum ratios of capital to risk-weighted assets. It is the measurement of risk embodied in risk-weighted assets that the New Accord addresses.

63. Under the New Accord, the denominator of the minimum total capital ratio will consist of three parts: the sum of all risk-weighted assets for credit risk, plus 12.5 times the sum of the capital charges for market risk and operational risk.<sup>10</sup> Assuming that a bank has \$875 of risk weighted assets, a market risk capital charge of \$10 and an operational risk capital charge of \$20, the denominator of the total capital ratio would equal  $875 + [(10 + 20) \times 12.5]$  or \$1,250.

64. Pillar 1 covers regulatory capital requirements for market, credit and operational risk. To improve risk sensitivity, the Committee is proposing a range of options for addressing both credit and operational risk. The Committee has decided to treat interest rate risk in the banking book under Pillar 2. Given the variety of underlying assumptions needed, the Committee believes that a better and more risk-sensitive treatment can be achieved through the supervisory review process rather than through minimum capital requirements.

65. For credit risk, the range of options begins with the standardised approach and extends to include a foundation IRB approach and an advanced IRB approach.

66. With regard to other risks, the Committee has decided to narrow its focus in Pillar 1 to the treatment of operational risk. In line with its approach to credit risk and market risk, the Committee offers several approaches to minimum capital requirements for operational risk. Other risks that are not easily measured will be captured in the revised Accord through the supervisory review process.

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<sup>9</sup> *Capital Adequacy Principles*, Joint Forum on Financial Conglomerates (February 1999).

<sup>10</sup> When multiplying by 12.5, the bank creates a numerical link between the calculation of the capital requirement for credit risk, where the capital charge is based on the risk-weighted assets, and the capital requirements for operational and market risks, where instead the capital charge itself is calculated directly.

67. Further, the 1996 Market Risk Amendment will remain largely unchanged, although the Committee is clarifying the concepts used in defining the trading book. The Committee is concerned that in some cases positions which should be in the banking book are assigned inappropriately to the trading book. As noted in *The New Basel Capital Accord*, the Committee is also providing guidance for prudent valuation of trading book positions.

## **1. Credit risk**

68. This section sets forth the methods and associated requirements for calculating risk-weighted assets under the standardised and IRB approaches.

### **(i) Standardised approach**

69. A key element of the New Accord is the standardised approach. This approach is a revision to the 1988 Accord's approach to credit risk where assets are assigned risk weights. To improve risk sensitivity without making the standardised approach overly complex, the Committee is proposing to base risk weights on external credit assessments. The Committee anticipates that the standardised approach will be used by a large number of banks around the globe for calculating minimum capital requirements. The details of the standardised approach are essentially consistent with the proposals in the June 1999 Consultative Paper. The principal changes the Committee is proposing to its original standardised approach are discussed below.

#### **(a) Greater risk differentiation**

70. The Committee has modified the treatment of banks' exposures to sovereigns, banks and corporates in an effort to improve the risk sensitivity of the standardised approach.

71. Upon further reflection, the Committee is no longer calling for adherence to the IMF's Special Data Dissemination Standards, the Basel Committee's Core Principles for Effective Banking Supervision, or IOSCO's 30 Objectives and Principles of Securities Regulation as preconditions for preferential risk weights in the standardised approach. Judgements regarding compliance with these standards will in large part be qualitative. Therefore, the Committee does not wish to create a structure wherein the sovereign's or supervisor's compliance would only be assessed in a mechanical fashion.

72. For banks' exposures to sovereigns<sup>11</sup>, the Committee proposes the use of published credit scores of export credit agencies (ECA). The use of such scores is expected to increase the number of sovereigns that have a recognised external assessment. As discussed in the Supporting Document *The Standardised Approach to Credit Risk*, the Committee has developed a method for mapping such ratings to the standardised risk buckets.

73. To extend the preferential treatment of short-term bank claims, the Committee is proposing to apply a preferential risk weight to banks' short-term exposures to other banks, provided they are denominated and funded in the local currency.<sup>12</sup> This proposal is expected

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<sup>11</sup> The term "sovereigns" includes sovereign governments, central banks and PSEs treated as sovereign governments by the national supervisor.

<sup>12</sup> A short-term interbank loan will now be defined as having an original maturity of three months or less rather than an original maturity of six months or less, as was proposed in the first Consultative Paper. This change in definition reflects analysis

to ensure that these markets are sufficiently liquid and promote competitive equality between domestic and foreign banks in local markets.

74. The June 1999 Consultative Paper called for risk weights on bank and corporate exposures to never be less than those applied to the sovereign of incorporation. The Committee is no longer seeking to establish a so-called sovereign floor but rather to allow for recognition of highly rated banks and corporates. Accordingly, exposures to banks and corporates that have external credit assessments higher than those assigned to the sovereign of incorporation may receive a preferential risk weight provided it is not less than 20%.

75. The Committee is also improving the risk sensitivity of the risk weights assigned to banks' exposures to corporates. A 50% risk bucket has been added and the risk weights applied to lower quality corporates have been reconfigured. These changes are the result of additional analysis conducted by the Committee on loss data for corporate exposures. The Committee is also clarifying that the 100% risk weight for banks' exposures to unrated corporates represents a floor. Supervisors are encouraged to increase this standard risk weight when warranted by the overall default experience in their jurisdiction.

76. As contemplated in the June 1999 Consultative Paper, a wider scope for defining the contents of the 150% risk-weight category is being provided. Banks' exposures to the lowest rated sovereigns, banks and corporates are captured in this risk bucket, as are unsecured portions of assets that are past due for more than 90 days, net of specific provisions. The Committee has also given greater thought to the potential for higher risk categories. National supervisors may decide to apply a risk weight of 150% or higher to exposures in which the volatility of losses arising from credit risk is, on average, significantly higher than that for exposures receiving a lower risk weight. Assets that may warrant such treatment include venture capital and private equity investments held by banks.

**(b) Operational requirements**

77. As elsewhere in the framework, operational requirements are an essential complement to minimum capital requirements. In the standardised approach, national supervisors should not allow banks to assign risk weights based on external assessments in a mechanical fashion. Rather, supervisors and banks are responsible for evaluating the methodologies used by external credit assessment institutions (ECAI) and the quality of the ratings produced. The Committee expects supervisors to use the eligibility criteria outlined in *The New Basel Capital Accord* in recognising ECAIs – a practice that will, in turn, impact the credit assessments eligible for use by banks for capital adequacy purposes.

78. Banks may elect to use a subset of the ECAI assessments deemed eligible by their national supervisor, though the assessments must be applied consistently for both risk weighting and risk management purposes. This requirement is intended to limit the potential for external credit assessments to be used in a manner that results in reduced capital requirements but is inconsistent with sound risk management practices.

79. Guidelines have also been developed by the Committee to address practical considerations, such as the use of multiple external credit assessments, issuer versus issue assessments, short-term versus long-term assessments and unsolicited assessments. During the consultative period, the Committee intends to develop guiding principles for

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completed by the Committee, which suggests that in practice the upper maturity bound in the short-term interbank market is generally three months.



mapping external credit assessments to the standardised risk buckets, such as those provided by ECAs and various ECAIs. The Committee will also continue its work on the use of short-term assessments for risk weighting purposes.

**(c) Treatment of credit risk mitigation techniques**

80. Credit risk mitigation relates to credit risk that is reduced by some means, for example, by collateral, credit derivatives, guarantees, or netting agreements.

81. The proposed framework for recognising credit risk mitigation techniques offers a choice of approaches that strikes different balances between simplicity and risk sensitivity.

82. The treatments of credit risk mitigation in the standardised approach and in the foundation IRB approach are designed to be consistent. In the advanced IRB approach, however, the treatment of such techniques will place greater emphasis on internal assessments. Further, recognising that credit risk mitigation can give rise to operational risk and other risks, the Committee has developed minimum operational standards for all approaches.

83. To ensure the longevity of the new framework in the face of further product innovation, the Committee has sought to focus on economic substance and risk characteristics rather than on the form of mitigation used. A summary of the new credit risk mitigation framework is provided below. Readers are encouraged to consult *The New Basel Capital Accord* and the relevant sections of the Supporting Documents *The Standardised Approach to Credit Risk* and *The Internal Ratings-Based Approach to Credit Risk* for an in-depth discussion.

*Collateral*

84. The Committee has adopted for the standardised approach a definition of eligible collateral that is broader than that in the 1988 Accord. In general, banks will be permitted to recognise cash; a defined range of debt securities issued by sovereigns, public sector entities, banks, securities firms and corporates; certain equity securities traded on recognised exchanges; certain UCITS<sup>13</sup> and units in mutual funds; and gold.

85. A comprehensive approach and a simple approach for treating collateralised transactions are proposed. In the comprehensive approach, which focuses on the cash value of collateral, banks calculating minimum capital requirements will be required for the first time to account for changes in the value of their exposures and in the value of collateral received. This is accomplished through the use of “haircuts” to reflect the risk that arises when there are time lags between the counterparty’s failure to pay or to deliver margin and the bank’s ability to liquidate collateral for cash. In that time, the market value of the collateral accepted by the bank and that of its exposure may diverge.

86. Two sets of haircuts have been developed for use in the comprehensive approach to collateral, those established by the Committee – i.e. standard supervisory haircuts - and others based on banks’ “own estimates” of collateral volatility subject to minimum requirements. The haircut calculations and values are discussed in more depth in the Supporting Document. The comprehensive approach also relies on a capital floor, denoted *w*, to encourage banks to monitor the credit quality of the borrower in collateralised

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<sup>13</sup> Undertakings for Collective Investment in Transferable Securities.

transactions. The purpose of  $w$  is twofold. First, to encourage banks to focus on and monitor the credit quality of the borrower in collateralised transactions. Secondly, to reflect the fact that, irrespective of the extent of overcollateralisation, a collateralised transaction can never be totally without risk. The risk weight on a collateralised transaction cannot fall below  $w$  multiplied by the risk weight of the borrower, irrespective of the amount of collateral taken. In other words, no amount of overcollateralisation will bring down capital requirements to zero unless  $w$  itself is zero. The level of  $w$  will be zero for certain very low risk transactions, while all other collateralised transactions will receive a  $w$  of 0.15.

87. The simple approach to collateral generally uses the substitution approach employed in the 1988 Accord. The definition of collateral is narrower than in the comprehensive approach and transactions are subject to more stringent operational requirements. Overall, the simpler approach will generate higher capital requirements on collateralised transactions than the comprehensive approach.

#### *Guarantees and credit derivatives*

88. For a bank to obtain any capital relief from the receipt of credit derivatives or guarantees, the credit protection must be direct, explicit, irrevocable and unconditional. When these conditions are met, banks may recognise credit protection provided by sovereigns, banks and securities firms and corporates (including insurance companies) with an external assessment of A or better.

89. The Committee recognises that banks only suffer losses in guaranteed transactions when both the obligor and the guarantor default. This “double default” effect can reduce the credit risk to which a bank is subject if there is a low correlation between the default probabilities of the obligor and the guarantor. The Committee investigated whether simple proxies for correlation could be used to provide a basis for discounts to the resulting capital charge. None of those evaluated could offer a satisfactory balance of prudence and simplicity. Furthermore, the potential for such proxies to create perverse incentives was prohibitively high. Accordingly, no recognition will be given to the double default effect.

90. The substitution approach provided in the 1988 Accord is retained for guarantees and credit derivatives, although an additional capital floor,  $w$ , will apply. In addition to maintaining banks’ focus on the credit quality of the underlying borrower, the purpose of  $w$  in this context is to reflect the extent to which the enforceability of the documentation used has been upheld in practice. A modified risk weight for the protection provider will be substituted for the risk weight of the borrower, as noted in the Supporting Document. A capital requirement proportional to  $w$  is added to the substituted risk weight to account for the quality and robustness of the documentation used by various providers of credit protection. The level of  $w$  will be zero for guarantees provided by sovereigns and banks, while a  $w$  of 0.15 will apply to all other credit protection.

#### *On-balance-sheet netting*

91. On-balance-sheet netting in the banking book will be permitted subject to certain operational standards. Its scope will be limited to the netting of loans and deposits to a single counterparty. This limitation is the result of concerns about the stability of the net balance sheet, especially for tradable assets and the legal enforceability of cross-product netting agreements in certain jurisdictions.

#### *Residual risks*

92. Maturity mismatches and currency mismatches are explicitly addressed in the New Accord. The Committee’s proposals for addressing residual risks that result from such

mismatches will apply to all forms of credit risk mitigation techniques. Hedges with a maturity less than that of the underlying exposures will be recognised provided they have a residual maturity of one year or more. Similarly, hedges denominated in a different currency from the underlying exposure will be recognised. However, in both cases, capital requirements will apply to the residual (maturity or currency) risks.

## **(ii) Internal ratings-based approach**

### **(a) Background**

93. The Committee has developed an approach to regulatory capital that more accurately reflects a bank's individual risk profile. Work with industry associations and data collected through surveys have been essential to the development of a risk sensitive IRB approach. The key elements of the IRB approach are discussed below, but readers should consult *The New Basel Capital Accord* and the Supporting Document *The Internal Ratings-Based Approach to Credit Risk* for an in-depth discussion of this framework.

94. The Committee envisions an expanded role for the IRB approach in the New Accord. In its original proposal, the Committee envisioned that some sophisticated banks would use their internal assessments of credit risk for setting capital charges. After further study, the Committee believes that the minimum eligibility standards for the IRB approach are within the reach of a wider range of banks. The Committee expects internationally active banks involved in complex risk transfers and those with an above-average risk profile to take steps to be in a position to use the IRB approach.

95. The IRB approach provides a similar treatment for corporate, bank and sovereign exposures, and a separate framework for retail, project finance and equity exposures. For each exposure class, the treatment is based on three main elements: *risk components*, where a bank may use either its own or standardised supervisory estimates; a *risk-weight function* which converts the risk components into risk weights to be used by banks in calculating risk-weighted assets; and a set of *minimum requirements* that a bank must meet to be eligible for IRB treatment.

96. Full compliance with these minimum requirements, including disclosure, together with supervisory review of such compliance, are prerequisites to a bank's ability to make use of the IRB framework. Without these, it would not be possible to rely on banks' internal estimates. The Committee believes that adherence to these requirements is an investment that banks must make in order to avail themselves of the greater risk sensitivity of the IRB approach.

97. Adherence to the minimum requirements of the IRB approach will require some banks to enhance their existing risk management systems. Banks are encouraged to begin this process now. The Committee also recognises that implementation of the IRB approach may present challenges for some supervisors, given its emphasis on bank-specific validation and supervisory review. The Committee encourages national authorities to take steps to implement this approach. Dialogue and information exchange between supervisors – both bilateral and multilateral – will be an integral part of this process.

98. The following sections outline the proposed IRB treatment for the six broad exposure classes. The Committee's work on corporate, banks and sovereign exposures (treated in a broadly similar manner) is most developed. The Committee is also presenting proposals for retail exposures. The Committee has additionally conducted preliminary work on project finance and equity exposures, which will continue during the consultative period.

**(b) Corporate, sovereign and bank exposures**

*Risk Components*

99. The IRB framework for corporate, sovereign and bank exposures builds on current best practice in credit risk measurement and management. As noted above, the framework is based on the estimation of a number of key risk components.

100. Banks' internal measures of credit risk are based on assessments of borrower and transaction risk. Most banks base their rating methodologies on the risk of borrower default and typically assign a borrower to a rating grade. A bank would then estimate the probability of default (PD) associated with borrowers in each of these internal grades; this PD estimate must represent a conservative view of a long-run average (pooled) PD for borrowers assigned to the grade in question.

101. PD is not the only component of credit risk. Banks measure not only the likelihood that a borrower will default but also how much they will lose should such an event occur. This will depend on two elements. First, how much per unit of exposure the bank expects to recover from the borrower. If recoveries are insufficient to cover the bank's exposure, this gives rise to loss given the default (LGD) of the borrower (expressed as a percentage of the exposure). Secondly, loss depends on the bank's exposure to the borrower at the time of default, commonly expressed as Exposure at Default (EAD).

102. While many banks are able to produce robust measures of PD, survey work revealed that fewer banks are able to provide reliable estimates of LGD, given data limitations and the bank-specific nature of this risk component. The Committee therefore proposes both a "foundation" IRB and an "advanced" IRB approach for the estimation of LGD for corporate, sovereign and bank exposures.

103. In the foundation approach, LGD values are set by supervisory rules. Exposures not secured by a recognised form of collateral will receive a fixed supervisory LGD depending on whether the transaction is senior or subordinated. For exposures secured by a recognised form of collateral, the credit risk mitigation framework discussed in the standardised approach will apply with some modifications. One modification is that foundation IRB banks will also be permitted to recognise certain limited forms of commercial and residential real estate as collateral.

104. In the advanced approach, the bank will have the opportunity of estimating the LGD of an exposure, subject to meeting additional, more rigorous minimum requirements for LGD estimation. In this approach, the range of eligible collateral is not restricted. However, banks will still be required to consider the risks which the restrictions in the foundation approach are designed to address. Accordingly, the additional minimum requirements are considerably more rigorous than those required of banks using foundation methodologies.

105. For guarantees and credit derivatives, the Committee is also currently considering two treatments – a foundation approach which uses the techniques outlined in the standardised approach and an advanced approach where the internal grade assigned to the guarantor and associated PD is adjusted by the bank to account for the effect of the guarantee. Banks must meet additional minimum requirements to be eligible for this advanced treatment.

106. Maturity is also shown to be a material driver of credit risk and, as such, the Committee has considered incorporating maturity as an explicit risk driver under the IRB approach. Such an approach would aim to be consistent with the objective of increased risk sensitivity, particularly in the treatment of maturity mismatches resulting from the use of certain credit risk mitigants. Capital requirements would also be made more consistent with

banks' underwriting and risk management practices, and with the pricing of credit risk. Notwithstanding these potential benefits, however, the Committee is concerned that an explicit treatment of maturity could impose additional costs on banking systems, or lead to distortions in lending markets. In developing a balanced IRB approach to maturity adjustments, therefore, there is an inherent trade-off between potential accuracy, complexity, the banking and supervisory resources needed to measure and validate the requisite inputs and the potential for unintended consequences on lending markets. The Committee has developed specific options for the foundation and advanced approaches, which represent different points along the trade-off between increased risk sensitivity and the potential for undesirable side effects.

107. With respect to the advanced IRB approach, the Committee is proposing inclusion of an explicit maturity adjustment. As such, a credit's risk weight would depend on its PD, LGD and "effective maturity" (M), which emphasises the contractual rather than economic maturity of exposures. The Committee is seeking specific comment on the approach for calibrating the maturity adjustments using this concept of effective maturity. The Committee has conducted significant work to develop appropriately risk sensitive maturity adjustment(s). The Supporting Document sets out two conceptual approaches for this calibration: One method is based on evaluating the changes in the underlying economic value of the loan (i.e. a so-called "marked to market" approach), while another focuses more exclusively on events of default. The Committee is seeking specific input on (a) the underlying approach that is most appropriate; (b) the resulting calibration of this explicit adjustment; (c) possible different approaches for different markets reflecting different financing structures; (d) consistent treatment of maturity mismatched credit mitigation; and (e) the interaction between this proposal and the trade-offs highlighted above. To note, choices between the approaches may have implications for other aspects of the proposals including the use of the maturity adjustments to deal with maturity mismatches.

108. The Committee is also considering whether it would be possible to allow banks to use their own internal estimates of effective maturity, or possibly even their own internal estimates of the effects of maturity on portfolio credit risk, subject to prescribed minimum supervisory requirements. The industry is invited to comment on the feasibility of such a proposal.

109. In balancing the trade-offs highlighted above with respect to the foundation approach, the Committee has prepared an option where all exposures would be treated as having the same conservative assessment of average maturity. In this case, an asset's risk weight would depend only on its PD and supervisory LGD. The average effective maturity of all exposures in the banking book is assumed to be three years for the calibration of the risk weights for this approach. The Committee is seeking comment on the appropriateness of the 3-year assumption used in this proposal. The Committee is also considering whether inclusion of the explicit maturity adjustment should be an option that some supervisors could implement for banks in the foundation IRB approach.

#### *Risk weighted assets*

110. IRB risk weights are expressed as a single continuous function of the PD, LGD and in some cases, M, of an exposure. This function provides a mechanism by which the risk components outlined above are converted into regulatory risk weights. This approach does not rely on supervisory determined risk weight buckets as in the standardised approach. Instead, it allows for greater risk differentiation and accommodates the different rating grade structures of banking institutions.

111. As in the standardised approach, risk weighted assets are the product of risk weights and measures of exposure. As noted above, the exposure measurement in the IRB

framework is referred to as Exposure at Default (EAD). The EAD for on-balance-sheet exposures equals the nominal outstanding amount. As with LGD, the Committee is proposing foundation and advanced methodologies for estimating EAD for off-balance-sheet items. In the foundation approach, EAD will be estimated using the credit conversion factors provided in the standardised approach, with the exception of undrawn commitments, where EAD will be set at 75% of the committed but undrawn value of the commitment. Under the advanced approach, internal estimates of EAD for commitments will be permitted. Banks intending to use own estimates of EAD will need to demonstrate that they meet a set of additional minimum requirements.

#### *Minimum Requirements*

112. To be eligible for the IRB approach a bank must meet a full set of minimum requirements, both at the outset and on an ongoing basis. These requirements ensure the integrity and credibility of a bank's rating system, process and its estimation of the risk components that will serve as the basis for regulatory capital. Readers are encouraged to refer to *The New Basel Capital Accord* and the Supporting Document for more details. Broadly categorised, the minimum requirements for the foundation IRB approach address the following:

- (a) Meaningful differentiation of credit risk;
- (b) Completeness and integrity of rating assignment;
- (c) Oversight of the rating system and processes;
- (d) Criteria of rating system;
- (e) Estimation of PD;
- (f) Data collection and IT systems;
- (g) Use of internal ratings;
- (h) Internal validation; and
- (i) Disclosure (requirements described under Pillar 3).

113. A bank using own estimates of any of the components of the advanced IRB approach – LGD, EAD and the treatment of guarantees/credit derivatives – must satisfy all the minimum requirements for the foundation approach as well as the additional minimum requirements for the relevant risk component it is estimating.

114. The Committee is proposing standards for the adoption of advanced methodologies across a bank. When a bank has met the standards for LGD, EAD or guarantees/credit derivatives, the advanced treatment would apply. A bank would initially be allowed to move to the advanced approach for one element. However, once a bank uses own estimates for one risk element, supervisors will expect the bank to use the advanced approach for the other risk factors within a reasonably short period of time. This would be subject to banks being able to demonstrate that they meet the standards for own estimates. As an indication of its intention to do so, the bank would need to agree to an implementation plan with its supervisor.

#### **(c) Retail Exposures**

115. The Committee is proposing an IRB approach for retail that is distinct from that for the corporate portfolio – with respect to the inputs, the risk weight structure and the minimum requirements. As such, an objective definition of retail exposures is required. The Committee's proposed definition is based on a number of criteria which seek to capture

homogeneous portfolios comprising a large number of low value loans with either a consumer or business focus and where the incremental risk of any single exposure is small.

116. The proposal allows some flexibility in how small business lending is classified. There are some advantages to classifying it as part of the retail portfolio, since many banks treat such exposures on a pooled basis, similar to other exposures of large number, relatively small value items. Also, in some cases, it is difficult to separate lending to businesses from personal lending. On the other hand some lending to small and medium size business has greater risks than other retail portfolios and, to the extent that there are capital differences between retail and corporate portfolios it would be undesirable for all such lending to be classified as retail regardless of risk. The Committee is considering whether further criteria are appropriate to distinguish between these cases. This could include whether the Committee should set additional limits to restrict the size of small business loans that could be classified as retail to smaller credits, or whether other criteria for classifying an exposure as retail ought to apply. These criteria could include requiring a connection between lending to the small business enterprise and lending to the principals of the business as individuals.

#### *Risk Components*

117. The Committee is also proposing an IRB treatment of retail portfolios, which builds on the conceptual framework outlined above, but also reflects the particular characteristics of retail exposures. One of the most significant differences between corporate and retail portfolios lies in the way banks differentiate risk. For retail exposures, the use of a fixed rating scale and the assignment of borrower ratings is much less common. Rather, on the basis of borrower, transaction/product and other characteristics, banks commonly divide the portfolio into “segments” made up of exposures with similar risk characteristics.

118. The IRB approach to retail builds on this and other industry practices. Thus, banks will be required, for IRB purposes, to group retail exposures into internally-determined segments in accordance with a set of minimum requirements. The assessment of risk components will be made at the segment level rather than at the rating grade level, as is the case for corporate exposures.

119. Reflecting industry practice, the Committee is proposing two options for assessing the risk components for retail exposures. The first option requires banks to assess separately the PD and LGD associated with each retail segment. The second allows banks to assess the expected loss, or “EL” (defined as the product of PD and LGD) associated with each risk segment without separately identifying the PD and LGD. The maturity (M) of the exposure is not a risk input for retail IRB capital purposes.

120. Both options above rely on banks providing their own estimates of EAD, PD/LGD, or EL. This is due to the amount and richness of data that many banks have on risk and borrower performance in their retail portfolios. Thus, the Committee expects that well-managed banks will have the capability to capture and process the data necessary to support the required inputs. Thus, it is the Committee’s view that in contrast to the approach for corporate exposures, a foundation approach for these risk components is not warranted.

#### *Risk weights*

121. Risk weights will be a function of PD and LGD. For banks using the EL approach outlined above, the Committee intends to develop a mechanism by which such estimates can be translated into the PD/LGD risk weight function. As retail portfolios are characterised by a high number of low-value exposures, there will be no adjustment to reflect concentration of lending to a borrower (or related group of borrowers) in the retail framework (in contrast to the approach taken for other exposure types - see discussion of this adjustment in paragraphs 130 to 131 of this Overview).

122. *The New Basel Capital Accord* presents indicative risk weights for retail exposures. While these are similar in derivation and format to those for corporate exposures, the Committee stresses that they are more tentative than their corporate counterparts. First, the Committee has in the time available been able to obtain less retail data to inform the proposals. There is also less uniformity in the economic capital allocation methodology for retail portfolios than for the corporate portfolio. The Committee is also considering whether different risk weights are warranted for different product types. The Committee particularly seeks comment on this issue.

#### *Minimum requirements*

123. As with corporate exposures, adherence to minimum requirements is essential to ensuring the integrity and reliability of internal rating systems and estimated loss data. While many requirements draw on the corporate requirements, others reflect the particular characteristics of retail portfolios. The Committee will continue to develop and refine these proposed requirements and seeks comments on the appropriateness and completeness of the current proposals.

124. A key aspect of the treatment for retail exposures is risk segmentation. Banks will be required to segment their portfolio to ensure that each risk segment contains exposures whose risk characteristics are reasonably homogenous. Other minimum requirements cover quantification of the loss characteristics associated with each segment; the methods and frequency of review of the risk profile of segments and the individual exposures contained within them; and public disclosure requirements.

#### **(d) Project Finance Exposures**

125. The Committee believes that a separate treatment of project finance is warranted. The key issues confronting the Committee include (a) the unique loss distribution and risk characteristics of project finance lending. In particular, the relationship between expected and unexpected losses differs from that seen in corporate exposures, and PD, LGD and EAD are more highly correlated; and (b) the limited availability of data for use in quantifying key risk characteristics and in validating banks' estimates.

126. The Committee believes that these challenges raise significant implementation and validation issues that will need to be addressed. Thus, the Committee will work over the coming months to finalise its proposals relating to project finance. During the consultative period, the Committee seeks input on related issues discussed in the Supporting Document.

#### **(e) Equity Exposures**

127. The Committee wishes to develop more risk sensitive approaches for equity positions held in the banking book and to remove the possibility that banks could incur a lower capital charge as a consequence of holding the equity of an obligor rather than its debt.

128. A new capital treatment of equity exposures will require particular care in its development and implementation, including transitional arrangements and, where appropriate, the need to grandfather some types of investments. The Committee is aware of the contribution that banks play in certain markets towards the provision of equity finance and of the different motives for holding equities. The Committee believes that more than one approach to equity capital requirements will be necessary. The Committee has identified two broad approaches for further consideration. One is a PD/LGD based approach that would be conceptually similar to that adopted for corporate debt and the other is a methodology based on market risk or stress testing. The Committee recognises that the ultimate choice of a



particular approach (or approaches) under the equity IRB framework should be based on the nature of a bank's equity holdings and the appropriateness of the underlying methodology to those holdings.

129. In its future work, the Committee will consider current market practice; incentives vis-à-vis the revised standardised approach and the IRB approach to corporate exposures; the interaction with equity holdings in the trading book; and the extent of any statutory provisions relating to equity finance. The Committee seeks input from the industry on the options put forward.

**(f) Granularity adjustment**

130. The Committee is proposing to make another important departure from the 1988 Accord in that minimum capital requirements will not only depend on the characteristics of an individual exposure but also on the characteristics of a bank's other exposures. Granularity, or rather a lack of it, in the form of a concentration of a bank's exposures to single borrowers, or groups of closely related borrowers, is shown to be a material driver of risk. The Committee therefore proposes to incorporate this risk factor into the IRB approach by means of a standard supervisory capital adjustment applied to all exposures other than those in the retail portfolio. This treatment will not take account of industry, geographic, or other forms of credit risk concentration.

131. The 'granularity' adjustment would be applied to the total risk weighted assets at the consolidated bank level. Based on the distribution of its exposures and LGD estimates within (and across) its internal grades, a bank would calculate an adjustment to risk-weighted assets to reflect the degree of granularity relative to a standard reference portfolio. If the bank's level of portfolio granularity is better than that of the reference portfolio, a downward adjustment will be made. This will result in a reduction in the total risk-weighted assets of the bank and required capital. Conversely, if the bank's portfolio granularity is less than the reference portfolio, an upward adjustment is made to total risk weighted assets.

**(g) Coverage of IRB across exposure types and business units**

132. A banking group that adopts the IRB approach for some of its exposures must adopt the IRB approach across all classes of exposure and all significant business units (subsidiaries and branches) within a reasonably short time. Banks must agree with their supervisor on an articulated rollout plan. Within the rollout period, no capital relief would be granted for intra-group transactions between the IRB bank and a business unit that uses the standardised approach. This treatment, intended to minimise cherry-picking, would include asset sales or cross guarantees.

133. Other exposures in non-significant business units may be exempted from the above rule, subject to national discretion. Capital requirements for such operations will be determined according to the standardised approach. Under such circumstances, the supervisor will consider whether a bank should hold more capital through implementation of Pillar 2. As in the case above, no capital relief would be granted for intra-group transactions (including asset sales and cross guarantees) between the IRB bank and a business unit on the standardised approach.

**(h) Future work**

134. The Committee will be working to refine and further develop a number of areas related to the IRB approach, including those highlighted in the above sections (e.g. treatment of maturity, further development of the work on project finance and equity). In addition, the

Committee intends to consider applications of IRB to credit risk in the trading book, and the treatment of potential future exposure for OTC derivative instruments. These issues are further discussed in the Supporting Document.

### **(iii) Asset securitisation**

135. The Committee has given considerable thought to the treatment of asset securitisation. As noted in the June 1999 Consultative Paper, asset securitisation can serve as an efficient way for a bank to redistribute its credit risks to other banks and non-bank investors. Nevertheless, the Committee has become increasingly concerned with some banks' use of such structures to avoid maintaining capital commensurate with their risk exposures.

136. For this reason, the Committee has developed for consultation standardised and IRB approaches for treating the explicit risks that traditional securitisations pose for banks – issuing banks, investing banks and, in the case of the standardised approach, sponsoring banks. A traditional securitisation involves the legal or economic transfer of assets or obligations by an originating institution to a third party, typically referred to as a “special purpose vehicle” (SPV). An SPV issues asset-backed securities, which are claims against specific asset pools.

137. Operational requirements, disclosure requirements and minimum capital requirements are discussed below. Future work concerning the treatment of synthetic securitisations and consideration of implicit and other residual risks is also discussed. This work may lead to changes in the proposed capital treatment as described herein.

#### **(a) Operational requirements**

138. A definition of a “clean break” – to identify when the issuing bank removes securitised assets from its balance sheet – is essential for purposes of risk-based capital requirements. Where these criteria, described more fully in *The New Basel Capital Accord*, are met, the assets should be considered effectively removed from the bank's balance sheet for purposes of calculating a regulatory capital charge for the explicit risk.

#### **(b) Disclosure requirements**

139. In order for banks to receive favourable capital treatment for asset securitisation transactions, they are required to disclose publicly certain quantitative and qualitative information. *The New Basel Capital Accord* outlines required disclosures that must be made by originating banks, sponsoring banks and SPVs established by banks. Many of the proposed disclosure requirements reflect the level of information currently disclosed to the market.

#### **(c) Standardised approach to asset securitisation**

*For originating banks*

140. Originating banks typically serve as loan servicers (servicing agents) and providers of credit enhancements. To minimise the risk of association, the Committee recommends that originating banks should not provide support that exceeds their contractual obligations. The minimum capital requirements for credit enhancements are based on the risk-weight schedule described in *The New Basel Capital Accord*. Because credit enhancements are typically the unrated or lowest rated tranches of a securitisation, they would be fully deducted from the originating bank's regulatory capital.

141. Originating banks (or loan servicers) may provide short-term liquidity to an asset securitisation if contractually obligated to do so. For capital adequacy purposes, this short-term funding is effectively regarded as a short-term commitment. This requires the bank to apply a 20% conversion factor to the notional amount of the facility and to generally risk weight it at 100%.

*Revolving securitisations with early amortisation features*

142. The Committee is also clarifying the treatment of revolving securitisations with early amortisation features. These provisions are designed to force an early wind-down of the securitisation if the credit quality of the underlying asset pool deteriorates. Early amortisation features pose a certain amount of risk to the originating bank even when a clean break has been established. Consequently, originating banks of a revolving securitisation with early amortisation features will be required to apply a minimum credit conversion factor of 10% to the securitised asset pool. Supervisors may apply a higher off-balance-sheet conversion factor in certain situations after considering the adequacy of the originating bank's risk management processes and internal controls.

*For investor banks*

143. For cases in which banks purchase asset-backed securities for investment purposes, the Committee continues to propose the risk-weight schedule outlined in the June 1999 Consultative Paper and provided in *The New Basel Capital Accord*.

144. This treatment requires an investing bank to deduct unrated tranches from regulatory capital. An exception is proposed for senior tranches of unrated structures. In recognition of the liquidation preference of these tranches, the Committee is proposing a "look-through approach" wherein the risk weight applied to the senior tranche of unrated structures would correspond to that assigned to the highest risk-weighted asset included in the underlying pool.

*For sponsoring banks*

145. The Committee has developed a capital treatment for the activities conducted by sponsoring banks of the SPV. Such banks may conduct a range of activities related to the SPV (or conduit), including the provision of credit enhancements and liquidity facilities discussed below.

146. Consistent with the treatment outlined above for deducting first loss positions held by investing banks, sponsoring banks must deduct from regulatory capital any first loss credit enhancements they provide to an asset securitisation.

147. Liquidity facilities provided by the sponsoring bank are generally regarded as commitments for capital adequacy purposes. The requirements for ensuring that a facility is used solely for liquidity purposes are outlined more fully in the document *The New Basel Capital Accord*. These requirements relate to the structure of the facility and its relationship to the SPV. Facilities that meet these requirements will receive a 20% conversion factor and will be generally risk weighted at 100%.

148. Facilities deemed not solely for liquidity purposes will be regarded as credit enhancements or as direct credit substitutes. As is the case for originating banks, credit enhancements will be deducted from regulatory capital. Direct credit substitutes, however, will be risk weighted in accordance with the schedule used for securitisation tranches held by investing banks.

**(d) IRB approach to asset securitisation**

149. The Committee has developed the outline of a securitisation treatment for IRB that follows the same economic logic used for the standardised approach. At the same time, the Committee wishes to take advantage of the greater capacity for risk sensitivity under the IRB framework. The specific mechanism depends on whether the bank in question is an issuer or an investor in securitisation tranches. The treatment described herein would apply to traditional securitisation transactions under both the foundation and advanced IRB approaches. During the consultative process, the Committee will continue its work to refine the IRB treatment of securitisation and to address key outstanding issues associated with this treatment.

150. For banks issuing securitisation tranches, the full amount of retained first-loss positions would be deducted from capital, regardless of the IRB capital requirement that would otherwise be assessed against the underlying pool of securitised assets. The Committee is also considering whether issuing banks that retain tranches with an explicit rating from a recognised external credit assessment institution (ECAI) could apply an IRB capital requirement tied to that rating by mapping this assessment into the PD/LGD framework. This treatment effectively follows the approach for externally rated tranches held by an investor bank.

151. For banks investing in securitisation tranches issued by other institutions, the Committee proposes to rely primarily on ratings for such tranches provided by ECAs. Specifically, the bank would treat the tranche as a single credit exposure like other exposures, and apply a capital requirement on the basis of the PD and LGD appropriate to the tranche. The appropriate PD would be that associated with the external rating on the tranche in question. This PD could be measured directly, as the long-term historical overall default rate of instruments in that rating category for the ECAI in question measured with an appropriately conservative bias, or measured indirectly as the PD estimated by the bank for its own internal grade that is “comparable” to that external rating based on a mapping analysis that is approved by supervisors. Although the Committee will continue to refine its analysis over the consultative period, it proposes for the sake of conservatism to apply a 100% LGD to such tranches. This 100% LGD would apply to both foundation and advanced-approach banks. If the tranche is unrated (e.g. associated with a bilateral transaction), which can be viewed as evidence of the position’s low credit quality, the investing bank would be expected to deduct the tranche from capital.

152. As mentioned, the Committee will continue looking at several specific-issue areas as it continues its work to refine this proposal. For instance, the assumption of 100% LGD is extremely conservative and does not differentiate between first loss and more senior loss positions. Nor does it differentiate between those banks on the foundation or advanced approach for the estimation of LGD.

153. In addition, the Committee will continue to study alternative approaches, such as the “two-legged” or “sliding-scale” approach and a broader application of a PD/LGD treatment for individual securitisation tranches. This latter approach would have to address how banks or supervisors could attribute a single PD estimate to an unrated tranche in a way that could be validated (see the Supporting Document).

**(e) Residual risks**

154. The Committee is evaluating the appropriate capital treatment for risk that arises when a bank provides support to a securitised pool of assets in excess of contractual obligations. This type of support is often referred to as implicit recourse. As explained in *The New Basel Capital Accord*, potentially severe consequences would result if a bank were

discovered to have provided such implicit recourse. These consequences include the loss of favourable capital treatment for all of the assets associated with the structure for which the bank has provided support, or for all of this institution's securitised assets. The consequences also include the bank's disclosure to the market of such capital implications and potentially the inability to gain favourable capital treatment on securitised assets in the future.

155. During the consultative period, the Committee intends to further assess the nature, frequency and consequences of banks' providing implicit recourse. Future work will also consider other residual risks not captured in the capital treatment for explicit risks outlined above, as well as the potential for unacceptable capital arbitrage opportunities arising through the securitisation process. This work will allow for an assessment of whether an *ex ante* minimum capital charge for securitisation transactions is warranted to address implicit and residual risks fully.

**(f) Synthetic securitisation**

156. The Committee's future work plan will also include consideration of how best to address the risks associated with synthetic securitisations or structured transactions involving portfolio credit derivatives. The complexity of these transactions may expose banks to substantial risk. The Committee intends to focus on the development of operational standards and minimum capital requirements for these structures.

## **2. Operational risk**

157. The June 1999 Consultative Paper announced the Committee's intention to address in the New Accord risks other than credit and market. After additional work conducted in close cooperation with the industry, the Committee proposes to narrow its focus on the treatment of operational risk. This proposal for minimum capital requirements reflects both practical and conceptual issues identified since the release of the June paper.

158. The Committee has adopted a standard industry definition of operational risk: "the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events." The Committee intends to refine this definition during the second consultative period.

**(i) Minimum capital requirements**

159. Consistent with its objective of moving away from a one-size-fits-all approach to capital adequacy, the Committee proposes a range of approaches to operational risk. This continuum currently comprises three approaches of increasing sophistication (basic indicator, standardised and internal measurement) and is based on the outcome of extensive discussions with the industry. The capital charge will be based on one or a number of indicators reflecting the amount of operational risk confronting the bank.

160. The Committee believes that on-going consultation with the industry will be vital for establishing appropriate minimum capital requirements for operational risk. The Committee views coordinated industry-wide data collection and data sharing based on consistent definitions of loss, risks and business lines to be particularly critical in developing the advanced approaches. Without such data, the Committee will be forced to make conservative assumptions in setting minimum operational risk capital requirements.

161. Because loss data are scarce, the Committee has surveyed a number of multinational banking organisations to determine the amount of economic capital allocated to this risk. The preliminary work suggests that, on average, these banks tend to set aside 20% of economic capital for operational risk. As a first approximation in developing minimum capital charges, the Committee has used 20% of minimum regulatory capital as measured under the 1988 Accord in estimating an indicative level of the fixed percentage (“alpha factor”) in the basic indicator approach. The Committee has also used 20% of minimum regulatory capital in providing a potential calibration technique for the standardised approach. The Committee intends to do more work over the coming months to determine how best to set minimum capital requirements for operational risk, assuming that additional loss data will become available.

162. The Committee anticipates allowing banks to employ more advanced approaches to operational risk on a business line by business line basis. For example, banks may address the operational risk in some business lines in the standardised approach and use the internal measurement approach for others. However, once the bank has an approved method for use in the more advanced approaches, it will not be permitted to choose to revert to a simpler method for treating operational risk. Generally, internationally active banks and banks with significant operational risk exposure are expected to use a more advanced approach than the basic indicator approach. The Committee expects supervisors to encourage this through Pillar 2 and Pillar 3.

## **(ii) Continuum of approaches**

163. The *Basic Indicator Approach* links the capital charge for operational risk to a single indicator that serves as a proxy for the bank’s overall risk exposure. For example, if gross income is identified as the indicator, each bank will hold capital for operational risk equal to a fixed percentage (“alpha factor”) of its gross income. The Committee will continue to work closely with the industry to determine an appropriate basic indicator for operational risk and to determine the alpha factor.

164. The *Standardised Approach*, which may be used by banks meeting certain minimum standards, builds on the basic indicator approach by dividing a bank’s activities into a number of standardised industry business lines (e.g. corporate finance and retail banking) into which banks map their internal framework. Within each business line, the capital charge will be calculated by multiplying an indicator of operational risk by a fixed percentage (“beta factor”). Across business lines, both the indicator and the beta factor may differ. The total capital charge for operational risk will be the sum of the regulatory capital charges across each of the business lines. The mechanics of the standardised approach and derivation of the beta factors are discussed in the Supporting Document *Operational Risk*. The Committee expects to work closely with the industry to define both of these elements further.

165. The *Internal Measurement Approach* allows individual banks meeting more rigorous supervisory standards to rely on internal data for regulatory capital purposes. Banks will collect three data inputs for a specified set of business lines and risk types: an operational risk exposure indicator plus data representing the probability that a loss event occurs and the losses given such events. To calculate the capital charge, the bank will apply to the data it has collected a fixed percentage (“gamma factor”) that has been determined by the Committee on the basis of industry-wide data. As is the case under the standardised approach, the total capital charge for operational risk will be the sum of the capital requirements for each business line.

166. The Committee believes that a standard definition of business lines, risk indicators and loss events should apply, at least in the early stages of developing the internal

measurement approach. A certain degree of standardisation will promote the development of industry-wide loss data and facilitate the supervisory validation process of banks' internal methodologies. The Committee's provisional mapping of business lines, risk types and exposure indicators, which reflects considerable discussion with the industry, is provided in the Supporting Document.

167. The Committee recognises that the industry is in the process of developing data that will be necessary to implement the internal measurement approach. As banks gain more experience in using internal systems to measure operational risk and as more data are collected, the Committee intends to examine the possibility of providing banks with greater flexibility to define their own business lines and risk indicators.

### **(iii) The “floor” concept**

168. As banks move along the continuum of approaches, the Committee expects improvements in risk management practices to be reflected in lower capital requirements for operational risk. This will be achieved through the calibration of the factors (alpha, beta and gamma) and, assuming that risk management improves, through bank-specific data reflecting a better control environment. The Committee will limit the reduction in capital held for operational risk when a bank moves from the standardised approach to the internal measurement approach by setting a floor, below which the required capital cannot fall. The Committee will review the need for the existence and level of the floor two years after the implementation of the New Accord. Mechanisms by which the floor can be set are discussed in the Supporting Document.

### **(iv) Operational risk management standards**

169. In order to use the internal measurement approach, banks will need to demonstrate compliance with a number of standards. These standards build on those required for the standardised approach and are outlined in the Supporting Document. The Committee also intends to develop a series of sound practices for the identification, monitoring and control of operational risk. These will form the specific standards but are also intended to be of wide applicability, including to those banks using the basic indicator approach. In addition, the Committee will further explore qualitative and quantitative disclosures of both the processes used by banks to manage and control their operational risks, and banks' methods of calculating minimum capital requirements.

### **(v) On-going work**

170. In addition to developing calibration of the operational risk charge, the Committee will continue to explore ways of improving the risk sensitivity of the operational risk framework. This will include work on a risk profile index in the internal measurement approach, a loss distribution approach, and the recognition of risk mitigation techniques - all of which are discussed in the Supporting Document.

171. Consideration will be given to the use of a *Risk Profile Index* in the internal measurement approach to adjust capital requirements in cases in which the risk profile of the bank does not coincide with the loss distribution of the industry as a whole. More work is needed to assess the costs and benefits of such an additional adjustment to the minimum regulatory capital requirement.

172. Some banks are developing a *Loss Distribution Approach* in which they specify their own loss distributions, business lines and risk types. At this stage, the Committee does not anticipate that such an approach would be available for regulatory capital purposes when the New Accord is introduced. However, this does not preclude the use of a loss distribution approach in the future and the Committee encourages the industry to engage in a dialogue to refine the approach and develop a suitable validation process for it.

173. Over the next several months, the Committee also plans to work with the industry on the possible recognition of operational risk mitigation techniques, including the use of insurance. This work will focus on identifying techniques that result in risk reduction and transfer rather than the exchange of one risk for another. The Committee will also evaluate the extent to which loss data reflect operational risk mitigants.

### **(C) PILLAR 2: SUPERVISORY REVIEW PROCESS**

174. The Committee views supervisory review as a critical complement to minimum capital requirements and market discipline. The second pillar of the new framework is intended to ensure that each bank has sound internal processes in place to assess the adequacy of its capital based on a thorough evaluation of its risks. Supervisors will be responsible for evaluating how well banks are assessing their capital adequacy needs relative to their risks, including whether banks are appropriately addressing the relationship between different types of risks. In doing so, supervisors will draw on, among other considerations, their knowledge of best practices across institutions.

175. This proposal is in no way intended to replace the judgement and expertise of bank management, or to shift the responsibility for maintaining capital adequacy to supervisors. On the contrary, it is well understood that management has the most complete understanding of the risks their institution faces and it is they who have ultimate responsibility for managing those risks. Furthermore, capital should not be regarded as a substitute for addressing fundamentally inadequate control or risk management processes.

176. In proposing the second pillar, the Committee seeks to foster a more active dialogue between banks and their supervisors, such that when deficiencies are identified, prompt and decisive action can be taken to reduce risk or restore capital. Accordingly, supervisors may wish to adopt an approach that focuses more intensively on those banks whose risk profile or operational experience warrants such attention.

177. Also important is the way in which Pillar 2 of the new framework interacts with the requirements of the more advanced methods in Pillar 1, in particular those of the IRB framework for credit risk. Supervisors must ensure that these requirements are being met by banks on an on-going basis.

178. The remainder of this section discusses the key principles of supervisory review, supervisory transparency and accountability, and outlines the Committee's guidelines on the treatment of interest rate risk in the banking book.

## **1. Four key principles of supervisory review**

179. The Committee has expanded on the basic concepts of supervisory review outlined in the June 1999 Consultative Paper. The Committee has identified four key concepts of



supervisory review, which are elaborated below. These principles complement the extensive supervisory guidance that has been developed and published by the Committee.

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

181. A sound capital adequacy assessment process should include policies and procedures designed to ensure that material risks are captured; procedures for relating the bank's strategies and level of capital to risk; and internal controls, reviews and audit to ensure the integrity of the overall management system. The responsibility for the establishment and maintenance of this process rests with management.

182. In continuing to evaluate this process, bank management should remain mindful of the particular stage of the business cycle in which it is operating. Accordingly, bank management should perform rigorous, forward-looking stress testing that identifies events of changes in credit and capital market conditions that could adversely impact the bank.

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

184. When evaluating a bank's internal capital assessment process, supervisors should consider several relevant factors. These factors include the results of sensitivity analyses and stress tests conducted by the bank and how they relate to the bank's capital; the extent to which bank management has provided for unexpected events in setting capital levels; and whether the target capital levels are properly reviewed and monitored by senior management.

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

186. Supervisors have several means of ensuring that individual banks are operating with adequate levels of capital. The supervisor may, among other options, set trigger and target capital ratios or define categories above minimum regulatory capital ratios (e.g. well capitalised and adequately capitalised) for identifying the capitalisation level of the bank. Some countries may choose to set higher ratios for the banking system as a whole.

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

188. Supervisors should consider a range of options if they become concerned that a bank is not meeting the requirements embodied in the supervisory principles outlined above. These actions may include intensifying the monitoring of the bank; restricting the payment of dividends; requiring the bank to prepare and implement a satisfactory capital adequacy restoration plan; and requiring the bank to raise additional capital immediately. Supervisors should have the discretion to use the tools best suited to the circumstances of the bank and its operating environment.

## **2. Supervisory review of compliance with minimum standards**

189. In order for certain internal methodologies, credit risk mitigation techniques and asset securitisations to be recognised for regulatory capital purposes, banks will need to meet a number of requirements, including risk management standards and disclosure. In particular, banks will be required to disclose features of their internal methodologies used in calculating minimum capital requirements for credit and operational risk. As part of the supervisory review process, supervisors must ensure that these conditions are being met on an on-going basis.

190. The Committee regards this review of minimum standards and qualifying criteria as an integral part of the supervisory review process under Principle 2. In setting the minimum criteria, the Committee has considered current industry practice and so anticipates that these minimum requirements will provide supervisors with a useful set of benchmarks which are aligned with bank management expectations for effective risk management.

191. The Committee envisions that monitoring a bank's compliance with such supervisory standards can be achieved through several means, including on-site examinations or inspections, off-site review and discussions with management. At the same time, adoption of these advanced approaches will likely require significant enhancements to current supervisory reports. It will also require that supervisory and examination staff have sufficient experience and training to exercise judgement in the appropriate areas.

192. The Committee understands that supervisors may need to augment and reallocate their resources to support the supervisory review element of the more advanced approaches to Pillar 1. It nonetheless believes that the benefits of a capital adequacy framework that is more sensitive to risk and promotes strong risk management practices will justify the need for additional resources and improved supervisory skills. The demand for resources will be most acute in the initial stages of the revised Accord's implementation. This will be particularly true for supervisors of banks that intend to follow the advanced methodologies for calculating minimum capital requirements.

193. There will also be an important role for supervisory review of compliance with certain conditions and requirements being proposed for the standardised approaches. In particular, there will be a need to ensure that the various instruments that can reduce Pillar 1 capital requirements are understood and utilised as part of a sound, tested and properly documented risk management process.

## **3. Other aspects of supervisory review**

194. In addition to these four key principles, the Committee has identified other aspects of the supervisory review process. These include the transparency and accountability of the supervisory review process and the treatment of interest rate risk in the banking book.

### **(i) Supervisory transparency and accountability**

195. The Committee is aware that the supervision of banks is not an exact science and, therefore, discretionary elements within the supervisory review process are inevitable. However, supervisors must take care to carry out their obligations in a highly transparent and accountable manner. Accordingly, the Supporting Document *Supervisory Review Process* discusses aspects of a transparent supervisory review process.

## **(ii) Interest rate risk in the banking book**

196. As part of this second consultative package, the Committee has revised its 1997 *Principles for the Management of Interest Rate Risk*. This revision is available as a Supporting Document entitled *Principles for the Management and Supervision of Interest Rate Risk*. The Committee remains convinced that interest rate risk in the banking book is a potentially significant risk, and one that merits capital. However, comments received from the industry and additional work conducted by the Committee have made it clear that there is considerable heterogeneity among internationally active banks in terms of the nature of the underlying risk and the processes for monitoring and managing it. In light of this, the Committee has concluded that at this time it is most appropriate to treat interest rate risk in the banking book under Pillar 2 of the New Accord. Nevertheless, supervisors who consider that there is sufficient homogeneity within their banking populations about the nature and methods for monitoring and measuring this risk could establish a mandatory minimum capital requirement.

197. The revised guidance on interest rate risk recognises banks' internal systems as the principal tool for the measurement of interest rate risk in the banking book and the supervisory response. To facilitate supervisors' monitoring of interest rate risk exposures across institutions, banks must provide the results of their internal measurement systems, expressed in terms of economic value relative to capital, using a standardised interest rate shock.

198. If supervisors determine that a bank is not holding capital commensurate with the level of interest rate risk, they must require the bank to reduce its risk, to hold a specific additional amount of capital, or to combine the two remedies. Supervisors should be particularly attentive to the sufficiency of capital in the case of "outlier banks" whose economic value declines by more than 20% of the sum of Tier 1 and Tier 2 capital as a result of a standardised interest rate shock (200 basis points) or its equivalent, as described in the Supporting Document.

## **(D) PILLAR 3: MARKET DISCIPLINE**

199. The third major element of the Committee's approach to capital adequacy is market discipline. The Committee emphasises the potential for market discipline to reinforce capital regulation and other supervisory efforts in promoting safety and soundness in banks and financial systems. Meaningful disclosures by banks inform market participants, facilitating effective market discipline. A guidance paper issued by the Committee for consultation in January 2000<sup>14</sup> supplemented the Consultative Paper proposals concerning market discipline. The January 2000 paper outlined six broad recommendations relating to capital, risk exposure and capital adequacy.

200. The feedback from these consultative exercises has been positive and reinforces the Committee's view that enhanced transparency will have benefits for well-managed banks, investors and depositors and financial systems more generally. In addition, the Committee's ongoing work has identified the need for market participants to better understand how the New Accord applies to banking organisations and how corporate entities within banking groups are captured. Building on the six broad recommendations released in

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<sup>14</sup> A New Capital Adequacy Framework: Pillar III Market Discipline, Basel Committee on Banking Supervision, January 2000.

January of 2000, the Committee has developed a set of more specific qualitative and quantitative disclosures in four key areas: scope of application, composition of capital, risk exposure assessment and management processes, and capital adequacy (see Supporting Document *Pillar 3: Market Discipline*). Disclosure requirements and recommendations are discussed below.

201. The New Accord anticipates that banks will be permitted to use internal methodologies to calculate capital requirements for credit risk and operational risk. Given the influence of internal methodologies on the capital requirements established, the Committee believes that comprehensive disclosure is important for market participants to understand the relationship between the risk profile and capital of an institution, and hence its soundness. The use of these internal approaches is contingent upon a number of criteria, including appropriate disclosure. Also in the area of credit risk mitigation techniques and asset securitisation, the Committee believes that, in order for banks to reap the capital benefits, they must fulfil certain disclosure requirements to provide sufficient information to markets about the impacts of these techniques and transactions.

202. For these reasons, the Committee is setting out a number of its disclosure proposals as requirements, in some cases as a prerequisite to supervisory approval to the use of internal methodologies. As with other minimum requirements to be established under Pillar 1, a bank that fails to meet these disclosure requirements on an ongoing basis will not qualify for these capital treatments. There are also other specific capital treatments of particular instruments that have disclosure requirements attached to them. Where the proposals take the form of requirements, this is clearly stated in *The New Basel Capital Accord* and the Supporting Documents. The Committee does not expect the incremental costs of making such information public to be high, since banks will be collecting this data for internal purposes and they will be benefiting from the more risk sensitive capital requirements that result from the use of bank specific inputs.

203. The Committee believes that the rationale for Pillar 3 is sufficiently strong to warrant the introduction of general disclosure requirements, with clear remedial actions specified in the case of non-disclosure. The Committee notes, however, that there are differences between countries in the legal authority of bank supervisors to set general disclosure standards. While a number of supervisors have the power to implement disclosure requirements directly through regulations, others may be able to use only more indirect approaches, including issuing sound practice recommendations. Supervisors have also adopted different responses in the case of non-disclosure.

204. For these reasons, the Committee intends to introduce “strong recommendations” in those cases in which disclosures are not requirements to the use of a methodology or a particular instrument. It will continue to investigate various ways through which the application of these recommendations can be achieved. There are two processes by which this may be encouraged: strengthening the status of the recommendations and ensuring that non-disclosure attracts an appropriate supervisory response.

205. An important step in enhancing the recommendations under Pillar 3 is to embed them in an adequate bank management process, as described in the following principle: “Banks should have a formal disclosure policy approved by the board of directors. This policy should describe the bank’s objective and strategy for the public disclosure of information on its financial condition and performance. In addition, banks should implement a process for assessing the appropriateness of their disclosure, including the frequency of disclosure.” Pillar 2 specifies a similar principle with regard to the assessment of risk and capital, and such a principle will serve to strengthen the status of the disclosure recommendations.

206. The Committee also believes that supervisors should evaluate a bank's disclosure regime and take appropriate action. Such an approach is fully in line with the Basel Committee's Core Principles for Effective Banking Supervision.<sup>15</sup> Principle 21 explicitly requires that "banking supervisors must be satisfied that ... the bank publishes on a regular basis financial statements that fairly reflect its condition." Therefore, supervisors should embed the principle and guidance in their supervisory processes.

207. Another important dimension to the issue of implementation is the relationship between disclosure recommendations and accounting requirements. The Committee will continue to work with accounting authorities, including the International Accounting Standards Committee (IASC), to promote consistency between disclosure frameworks. The IASC is reviewing its disclosure standard, IAS 30<sup>16</sup>, for banks.

208. When a bank does not comply with the disclosure recommendations under Pillar 3, the Committee expects a supervisory response aimed at remedying this situation. The strength of this response should depend on the nature, implications and duration of non-compliance. A spectrum of responses is available to supervisors, ranging from "moral suasion" through dialogue with the bank's management to reprimands or financial penalties. Given that many supervisors do not have any direct legal authority with regard to accounting and disclosure, measures in this area would, at least initially, often have to be confined to pressure through suasion. However, to the extent that certain disclosure recommendations are recognised in International Accounting Standards, the enforceability of the standards will be very much enhanced.

209. Respondents to the Committee's previous recommendations on disclosure and the earlier Consultative Papers on Pillar 3 pointed out that the release of too much information could blur the key signals to the market. Some respondents also questioned whether all disclosures were applicable to all institutions, or whether there should be some degree of differentiation for smaller or less complex institutions. The proposals contained in the Supporting Document reflect these concerns by distinguishing between core and supplementary disclosures.

210. Core disclosures are those which convey vital information for all institutions and are important to the basic operation of market discipline. The Committee expects all institutions to disclose this basic information, subject to materiality. Information is regarded as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information. In addition, the Committee defines categories of supplementary disclosures. These disclosures are important for some, but not all, institutions and depend on the nature of the institution's risk exposure, capital adequacy and methods of calculating capital requirements. The supplementary disclosures may convey information that is of great significance for the operation of market discipline with respect to a particular institution, and as such should not be regarded as "secondary" or "optional" disclosures. The Committee recommends that sophisticated, internationally active banks make the full range of core and supplementary information publicly available, while generally, the concept of materiality will guide the necessity for supplementary disclosures to be made.

211. The Committee believes that the frequency of disclosure takes on particular relevance when the objective is to allow the operation of market discipline. It may be the case that annual disclosure is insufficiently frequent to allow market discipline to operate with

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<sup>15</sup> *Core Principles for Effective Banking Supervision*, Basel Committee on Banking Supervision, September 1997.

<sup>16</sup> Disclosures in the Financial Statements of Banks and Similar Financial Institutions, International Accounting Standards Committee, 1990 (reformatted 1994).

its full effect, since the participants would be responding to information which could be many months old and which may no longer reflect the true risk profile of the institution. The Committee believes it is desirable that the disclosures set out in this paper should be made on a semi-annual basis. In certain categories of disclosure subject to rapid time decay, for instance risk exposure, and in particular for internationally active banks, quarterly disclosures are desirable. This is likely to be especially relevant in the area of market risk exposure, where positions can move rapidly, and the Committee expects any general material changes to be disclosed as soon as possible after the event.

212. The Committee is aware that implementing these recommendations poses certain practical difficulties in some regimes. For example, some countries may lack a suitable vehicle for semi-annual disclosures. Furthermore, for some smaller institutions whose risk profile does not change rapidly, annual disclosure may be sufficient to meet materiality and frequency requirements. The Committee believes it is important for banks that make less frequent disclosures to publish a justification for their policy. Where there are impediments to full and frequent disclosure, be they legal, supervisory or merely conventional, the basis of these should be assessed by supervisors and, where possible, addressed. Related to the question of frequency is the question of the mechanism by which the disclosure is made. In many instances, annual and half-yearly reports and accounts could be used, but there may be cases, especially with more frequent disclosures, when an alternative method is needed. The Committee encourages banking organisations to be flexible in this regard, and to consider the opportunities offered by electronic media to make relevant disclosures on a frequent basis.

213. The Committee is aware that it is requiring and recommending the disclosure of a significant amount of information, much of which would be used for internal management purposes. While it believes appropriate disclosures are necessary for the operation of market discipline, it does not wish to require disclosure of proprietary information or to place an unnecessary burden on the industry. It is also mindful of the competitive implications that could arise through the disclosure of confidential information (e.g. provisions for legal proceedings).

214. The Committee would welcome feedback on the entire package of disclosure requirements and recommendations. The Committee has set out a wide range of information from which its final disclosure proposals will be crafted. It would be helpful if interested parties expressed their views on the relevance, appropriateness and level of detail of the disclosures set out in the Supporting Document, particularly in the IRB area, and on how the disclosures can be streamlined. Any specific concerns over the disclosure of proprietary information should be articulated clearly and should focus on how the difficulties may be resolved. In this regard, institutions are encouraged to suggest relevant alternative information that could be disclosed without raising proprietary concerns. The Committee is setting forth templates for illustrative purposes that are intended to give a clear and comprehensive guide to fulfilling many of the disclosures. The Committee would permit banks to provide the information in a different format, and would welcome comment on how the templates might be improved.

## **5. TRANSITIONAL ARRANGEMENTS**

### **(A) TRANSITION PERIOD REGARDING THE OVERALL IMPLEMENTATION OF THE ACCORD**

215. The New Accord will apply to all internationally active banks at every tier within a banking group. A three-year transition period beginning from the date of implementation for

applying full sub-consolidation will be provided for those countries where this is not currently a requirement.

**(B) TRANSITION PERIOD REGARDING THE INTERNAL RATINGS-BASED APPROACH**

216. The Committee acknowledges that full and immediate adherence to certain data-related minimum requirements may not be possible for banks with otherwise well-managed and sophisticated credit risk management systems at the time of implementation of the revised Accord (i.e. in 2004). Therefore, the Committee is considering, for corporate, bank and sovereign exposures under the foundation IRB approach, as well as for retail exposures, a three-year transition period during which these requirements would be relaxed, although supervisors would be expected to ensure that banks' implementation of the IRB approach is done in a sound manner during this period. During this transition period, a bank would be required to demonstrate steady progress towards being in a position to comply with the full set of minimum requirements by the end of the transition period.

217. Banks availing themselves of transition arrangements should disclose this fact periodically, at least with the same frequency as for other disclosures related to the IRB approach set out in Pillar 3. Such a disclosure should include the specific minimum requirements to which the transition applies, the areas and the extent of compliance shortfalls and, finally, the progress made towards compliance with the full set of minimum requirements.