

# Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework

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## Introduction

1. This report presents the outcome of the Basel Committee on Banking Supervision's ("the Committee") work over recent years to secure international convergence on revisions to supervisory regulations governing the capital adequacy of internationally active banks. Following the publication of the Committee's first round of proposals for revising the capital adequacy framework in June 1999, an extensive consultative process was set in train in all member countries and the proposals were also circulated to supervisory authorities worldwide. The Committee subsequently released additional proposals for consultation in [January 2001](#) and [April 2003](#) and furthermore conducted three [quantitative impact studies](#) related to its proposals. As a result of these efforts, many valuable improvements have been made to the original proposals. The present paper is now a statement of the Committee agreed by all its members. It sets out the details of the agreed Framework for measuring capital adequacy and the minimum standard to be achieved which the national supervisory authorities represented on the Committee will propose for adoption in their respective countries. This Framework and the standard it contains have been endorsed by the Central Bank Governors and Heads of Banking Supervision of the Group of Ten countries.

2. The Committee expects its members to move forward with the appropriate adoption procedures in their respective countries. In a number of instances, these procedures will include additional impact assessments of the Committee's Framework as well as further opportunities for comments by interested parties to be provided to national authorities. The Committee intends the Framework set out here to be available for implementation as of year-end 2006. However, the Committee feels that one further year of impact studies or parallel calculations will be needed for the most advanced approaches, and these therefore will be available for implementation as of year-end 2007. More details on the transition to the revised Framework and its relevance to particular approaches are set out in paragraphs 45 to 49.

3. This document is being circulated to supervisory authorities worldwide with a view to encouraging them to consider adopting this revised Framework at such time as they believe is consistent with their broader supervisory priorities. While the revised Framework has been designed to provide options for banks and banking systems worldwide, the Committee acknowledges that moving toward its adoption in the near future may not be a first priority for all non-G10 supervisory authorities in terms of what is needed to strengthen their supervision. Where this is the case, each national supervisor should consider carefully the benefits of the revised Framework in the

context of its domestic banking system when developing a timetable and approach to implementation.

4. The fundamental objective of the Committee's work to revise the 1988 Accord has been to develop a framework that would further strengthen the soundness and stability of the international banking system while maintaining sufficient consistency that capital adequacy regulation will not be a significant source of competitive inequality among internationally active banks. The Committee believes that the revised Framework will promote the adoption of stronger risk management practices by the banking industry, and views this as one of its major benefits. The Committee notes that, in their comments on the proposals, banks and other interested parties have welcomed the concept and rationale of the three pillars (minimum capital requirements, supervisory review, and market discipline) approach on which the revised Framework is based. More generally, they have expressed support for improving capital regulation to take into account changes in banking and risk management practices while at the same time preserving the benefits of a framework that can be applied as uniformly as possible at the national level.

5. In developing the revised Framework, the Committee has sought to arrive at significantly more risk-sensitive capital requirements that are conceptually sound and at the same time pay due regard to particular features of the present supervisory and accounting systems in individual member countries. It believes that this objective has been achieved. The Committee is also retaining key elements of the 1988 capital adequacy framework, including the general requirement for banks to hold total capital equivalent to at least 8% of their risk-weighted assets; the basic structure of the 1996 Market Risk Amendment regarding the treatment of market risk; and the definition of eligible capital.

6. A significant innovation of the revised Framework is the greater use of assessments of risk provided by banks' internal systems as inputs to capital calculations. In taking this step, the Committee is also putting forward a detailed set of minimum requirements designed to ensure the integrity of these internal risk assessments. It is not the Committee's intention to dictate the form or operational detail of banks' risk management policies and practices. Each supervisor will develop a set of review procedures for ensuring that banks' systems and controls are adequate to serve as the basis for the capital calculations. Supervisors will need to exercise sound judgements when determining a bank's state of readiness, particularly during the implementation process. The Committee expects national supervisors will focus on compliance with the minimum requirements as a means of ensuring the overall integrity of a bank's ability to provide prudential inputs to the capital calculations and not as an end in itself.

7. The revised Framework provides a range of options for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations and their financial market infrastructure. In addition, the Framework also allows for a limited degree of national discretion in the way in which each of these options may be applied, to adapt the standards to different conditions of national markets. These features, however, will necessitate substantial efforts by national authorities to ensure sufficient consistency in application. The Committee intends to monitor and review the application of the Framework in the period ahead with a view to achieving even greater consistency. In

particular, its Accord Implementation Group (AIG) was established to promote consistency in the Framework's application by encouraging supervisors to exchange information on implementation approaches.

8. The Committee has also recognised that home country supervisors have an important role in leading the enhanced cooperation between home and host country supervisors that will be required for effective implementation. The AIG is developing practical arrangements for cooperation and coordination that reduce implementation burden on banks and conserve supervisory resources. Based on the work of the AIG, and based on its interactions with supervisors and the industry, the Committee has issued general principles for the cross-border implementation of the revised Framework and more focused principles for the recognition of operational risk capital charges under advanced measurement approaches for home and host supervisors.

9. It should be stressed that the revised Framework is designed to establish *minimum* levels of capital for internationally active banks. As under the 1988 Accord, national authorities will be free to adopt arrangements that set higher levels of minimum capital. Moreover, they are free to put in place supplementary measures of capital adequacy for the banking organisations they charter. National authorities may use a supplementary capital measure as a way to address, for example, the potential uncertainties in the accuracy of the measure of risk exposures inherent in any capital rule or to constrain the extent to which an organisation may fund itself with debt. Where a jurisdiction employs a supplementary capital measure (such as a leverage ratio or a large exposure limit) in conjunction with the measure set forth in this Framework, in some instances the capital required under the supplementary measure may be more binding. More generally, under the second pillar, supervisors should expect banks to operate above minimum regulatory capital levels.

10. The revised Framework is more risk sensitive than the 1988 Accord, but countries where risks in the local banking market are relatively high nonetheless need to consider if banks should be required to hold additional capital over and above the Basel minimum. This is particularly the case with the more broad brush standardised approach, but, even in the case of the internal ratings-based (IRB) approach, the risk of major loss events may be higher than allowed for in this Framework.

11. The Committee also wishes to highlight the need for banks and supervisors to give appropriate attention to the second (supervisory review) and third (market discipline) pillars of the revised Framework. It is critical that the minimum capital requirements of the first pillar be accompanied by a robust implementation of the second, including efforts by banks to assess their capital adequacy and by supervisors to review such assessments. In addition, the disclosures provided under the third pillar of this Framework will be essential in ensuring that market discipline is an effective complement to the other two pillars.

12. The Committee is aware that interactions between regulatory and accounting approaches at both the national and international level can have significant consequences for the comparability of the resulting measures of capital adequacy and for the costs associated with the implementation of these approaches. The Committee believes that its decisions with respect to unexpected and expected losses represent a major step forward in this regard. The Committee and its members intend to continue

playing a pro-active role in the dialogue with accounting authorities in an effort to reduce, wherever possible, inappropriate disparities between regulatory and accounting standards.

13. The revised Framework presented here reflects several significant changes relative to the Committee's most recent consultative proposal in April 2003. A number of these changes have already been described in the Committee's press statements of October 2003, January 2004 and May 2004. These include the changes in the approach to the treatment of expected losses (EL) and unexpected losses (UL) and to the treatment of securitisation exposures. In addition to these, changes in the treatments of credit risk mitigation and qualifying revolving retail exposures, among others, are also being incorporated. The Committee also has sought to clarify its expectations regarding the need for banks using the advanced IRB approach to incorporate the effects arising from economic downturns into their loss-given-default (LGD) parameters.

14. The Committee believes it is important to reiterate its objectives regarding the overall level of minimum capital requirements. These are to broadly maintain the aggregate level of such requirements, while also providing incentives to adopt the more advanced risk-sensitive approaches of the revised Framework. The Committee has confirmed the need to further review the calibration of the revised Framework prior to its implementation. Should the information available at the time of such review reveal that the Committee's objectives on overall capital would not be achieved, the Committee is prepared to take actions necessary to address the situation. In particular, and consistent with the principle that such actions should be separated from the design of the Framework itself, this would entail the application of a single scaling factor — which could be either greater than or less than one — to the IRB capital requirement resulting from the revised Framework. The current best estimate of the scaling factor using Quantitative Impact Study 3 data adjusted for the EL-UL decisions is 1.06. The final determination of any scaling factor will be based on the parallel running results, which will reflect all of the elements of the Framework to be implemented.

15. The Committee has designed the revised Framework to be a more forward-looking approach to capital adequacy supervision, one that has the capacity to evolve with time. This evolution is necessary to ensure that the Framework keeps pace with market developments and advances in risk management practices, and the Committee intends to monitor these developments and to make revisions when necessary. In this regard, the Committee has benefited greatly from its frequent interactions with industry participants and looks forward to enhanced opportunities for dialogue. The Committee also intends to keep the industry apprised of its future work agenda.

16. One area where such interaction will be particularly important is in relation to the issue of "double default." The Committee believes that recognition of double default effects is necessary, though it is essential to consider all of the implications, especially those related to measurement, before a solution is decided upon. It will continue work with the intention of finding a prudentially sound solution as promptly as possible prior to the implementation of the revised Framework. Alongside this work, the Committee has also begun joint work with the International Organization of Securities Commissions (IOSCO) on various issues relating to trading activities (e.g. potential future exposure).

17. One area where the Committee intends to undertake additional work of a longer-term nature is in relation to the definition of eligible capital. One motivation for this is the fact that the changes in the treatment of expected and unexpected losses and related changes in the treatment of provisions in the Framework set out here generally tend to reduce Tier 1 capital requirements relative to total capital requirements. Moreover, converging on a uniform international capital standard under this Framework will ultimately require the identification of an agreed set of capital instruments that are available to absorb unanticipated losses on a going-concern basis. The Committee announced its intention to review the definition of capital as a follow-up to the revised approach to Tier 1 eligibility as announced in its October 1998 press release, “Instruments eligible for inclusion in Tier 1 capital”. It will explore further issues surrounding the definition of regulatory capital, but does not intend to propose changes as a result of this longer-term review prior to the implementation of the revised Framework set out in this document. In the meantime, the Committee will continue its efforts to ensure the consistent application of its 1998 decisions regarding the composition of regulatory capital across jurisdictions.

18. The Committee also seeks to continue to engage the banking industry in a discussion of prevailing risk management practices, including those practices aiming to produce quantified measures of risk and economic capital. Over the last decade, a number of banking organisations have invested resources in modelling the credit risk arising from their significant business operations. Such models are intended to assist banks in quantifying, aggregating and managing credit risk across geographic and product lines. While the Framework presented in this document stops short of allowing the results of such credit risk models to be used for regulatory capital purposes, the Committee recognises the importance of continued active dialogue regarding both the performance of such models and their comparability across banks. Moreover, the Committee believes that a successful implementation of the revised Framework will provide banks and supervisors with critical experience necessary to address such challenges. The Committee understands that the IRB approach represents a point on the continuum between purely regulatory measures of credit risk and an approach that builds more fully on internal credit risk models. In principle, further movements along that continuum are foreseeable, subject to an ability to address adequately concerns about reliability, comparability, validation, and competitive equity. In the meantime, the Committee believes that additional attention to the results of internal credit risk models in the supervisory review process and in banks’ disclosures will be highly beneficial for the accumulation of information on the relevant issues.

19. This document is divided into four parts. The first part, scope of application, details how the capital requirements are to be applied within a banking group. Calculation of the minimum capital requirements for credit risk and operational risk, as well as certain trading book issues are provided in part two. The third and fourth parts outline expectations concerning supervisory review and market discipline, respectively.

Read:

Part 1: [Scope of Application](#) PDF (23 pages, 298 kb)

Part 2: [The First Pillar - Minimum Capital Requirements](#) PDF (146 pages, 892 kb)

Parts 3,4: [The Second Pillar - Supervisory Review Process](#)  
[The Third Pillar - Market Discipline](#) PDF (33 pages, 431 kb)  
Annexes: [Scope of Application](#) PDF (49 pages, 186 kb)