Basel Committee
on Banking Supervision

Implementation of Basel II: Practical Considerations

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Overview and Executive Summary

A. Objective of the document

In June 2004, the Committee published the document “International Convergence of Capital Measurement and Capital Standards, a Revised Framework” (widely known as Basel II). While this revised Framework has been designed to provide options for banks and banking systems world-wide, the Committee acknowledges that moving towards its adoption in the near future may not be the first priority for all supervisors in all non-G10 countries in terms of what is needed to strengthen their supervision. Furthermore, the IMF and World Bank are of the view that future financial sector assessments will not be conducted on the basis of adoption of or compliance with the revised Framework if a country has not chosen to implement it. Rather, assessments will be based on the adequacy of the regulatory/supervisory standards adopted by the respective country and the country's performance relative to the chosen standards, consistent with the requirements of the Basel Committee's *Core Principles for Effective Banking Supervision* ("BCP, September 1997").[1]

Basel II aims to build on a solid foundation of prudent capital regulation, supervision, and market discipline, and to enhance further risk management and financial stability. As such, the Committee encourages each national supervisor to consider carefully the benefits of the new Framework in the context of its own domestic banking system and in developing a timetable and approach to implementation. Given resource and other constraints, these plans may extend beyond the Committee’s implementation dates. That said, supervisors should consider implementing key elements of the supervisory review and market discipline components of the new Framework even if the Basel II minimum capital requirements are not fully implemented by the implementation date. National supervisors should also ensure that banks that do not implement Basel II are subject to prudent capital regulation and sound accounting and provisioning policies.

Many national supervisors who are not represented in the Committee have already begun to evaluate the suitability of the new Framework for banks in their jurisdiction and plan for the transition to Basel II. In order to further this process, the Committee convened a Working Group largely comprised of members from non-G10 countries to assess the issues involved in implementing Basel II, to help them decide whether and when to implement Basel II, and to provide practical suggestions to supervisors for the transition to the new Framework.[2] The Working Group undertook this work during the first half of 2003. A number of those suggestions are summarised in this discussion document. Although the document has been largely informed by the experiences of the particular members of the Working Group, the guidance is not focused on any country or particular type of banking system. Rather, the document offers suggestions that can be adapted for use in different jurisdictions; it may also serve as a basis for discussion between supervisors and the banking industry. The document is not intended to be an interpretation of Basel II rules.

The document is structured as follows. Section 1 sets out various policy considerations that can play a role in weighing the costs and benefits of Basel II implementation vis-à-vis other

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[1] Please refer to Principle 6.

[2] The Working Group comprised representatives from Australia, Brazil, France, Hong Kong, Japan, Mexico, Russia, Saudi Arabia, Singapore, South Africa, the U.K., the International Monetary Fund, the World Bank and the Bank for International Settlements. The working group was chaired by Zahra El-Mekkawy, Federal Reserve Bank of New York.

national priorities. Section 2 discusses the factors that could be considered in determining the application of Basel II, with regard to the particular options and the population of banks which would be subject to the new Framework. Sections 3, 4 and 5 discuss implementation of Pillars 1, 2 and 3 more specifically. Sections 6 and 7 address potential changes to the legal and regulatory framework and resource and training needs. Key areas of each section are highlighted below.

B. National priorities in banking supervision

Supervisors - particularly in countries with scarce resources - will need to find the appropriate balance between implementation of Basel II and other supervisory priorities. This approach recognises that the objectives of Basel II are not to simply enforce compliance with a new set of capital rules. Rather, they are to build upon a solid infrastructure, and to enhance risk management, capital adequacy, market discipline, and financial stability.

A key element that countries should consider before moving on to Basel II is whether a good baseline supervisory system is in place. Supervisors may need to assess the degree to which their jurisdiction has successfully implemented the BCP, including its “preconditions” - which can serve as a baseline upon which to build the infrastructure of Basel II. The Financial Sector Assessment Programme (FSAP) or stand-alone BCP assessments can provide useful input into this “baseline” phase of the project. Supervisors will also need to assess the legal-regulatory infrastructure in place, human resources, the current disclosure regime, as well as the status of corporate governance, accounting and provisioning practices.

For many supervisors, assessment of national priorities will have implications for the range of options under Basel II which banks in their jurisdiction could reasonably be expected to adopt in the near-term. In other jurisdictions, supervisors may wish to defer implementation of Basel II, and devote their near-term efforts towards furthering progress on key infrastructures, as suggested above. Over time, supervisors should consider offering banks in their jurisdiction the more risk-sensitive approaches to capital regulation as laid down in Basel II.

C. Determining the population and options for Basel II

An appropriate capital adequacy framework should ensure safety and soundness of the banking system and encourage ongoing improvements in risk assessment. As noted above, effective implementation of the new Framework requires that supervisors implement it in a manner that suits their national circumstances. Effective implementation also does not require application of the new Framework to all banks in a jurisdiction. Supervisors may wish to maintain the current system of capital assessment or a simplified system for non-internationally active banks in their jurisdiction. This approach recognises that the advanced approaches may not be the ultimate destination for all banks in all jurisdictions.

For more complex, significant and internationally active banks, the Working Group encourages supervisors to ensure that, over time, they are in a position to offer these banks the possibility to move to more advanced methodologies and avail themselves of the more risk sensitive approaches to capital set out in Basel II. Providing such incentives will promote the objectives of banks, supervisors, and the market as a whole - and further promote a safe and sound banking system.

When a decision in principle has been made to implement Basel II, supervisors will need to determine the range of approaches within Basel II which will be available for local implementation and the population of banks that will be subject to the new Framework. Section 2 sets out the factors that supervisors need to consider if their banks are to adopt either the simpler and/or more advanced approaches of Basel II, the criteria for determining which banks would be subject to Basel II, and issues related to the target implementation date.

D. Practical steps for implementation of the three Pillars

Implementation of the new Framework will require a substantial resource commitment on the part of both banks and supervisors. Banks and supervisors which expect to adopt Basel II must therefore begin to think carefully about their strategy, and take the necessary steps to ensure timely and smooth implementation. Supervisors will first have to decide on the areas for which they have national discretion and communicate these and other supervisory expectations to the banks. All three Pillars are expected to be implemented because they are viewed as equally important for the success of this regulatory capital framework. Some jurisdictions may already have regulations that partially embody the concepts contained in Pillars 2 and 3. In those cases, only minor adjustments may be required. However, in other jurisdictions, Pillars 2 and 3 may require legislative changes which regulators need to consider. They must assess the extent to which banks are ready for all the elements of Basel II and engage in continuous dialogue with the banks during the transition phase to resolve implementation challenges. Supervisors will also need to prepare additional guidance for banks and examiners to elaborate on how they intend to assess compliance with Basel II standards in their jurisdiction. Sections 3-5 of the document address these and other practical challenges.

E. National legislative changes

In many countries, Basel II will require changes to legal and regulatory processes. Supervisors will need to assess the scope of the necessary changes, the procedures to be followed and the timeframe involved in introducing the changes. In many cases parliamentary or other consultative processes will need to be followed. Section 6 of the document discusses these issues.

F. Supervisory resources and training

Adequately trained staff is central to a robust supervisory infrastructure and the successful implementation of Basel II. In some cases, the skills of existing staff will need to be upgraded. In others, it will necessitate a shift from generalists to specialists. Supervisors should also identify and address non-personnel resource needs, such as the upgrading of regulatory reporting and IT systems at the supervisory authority or central bank. These efforts may involve creative methods for attracting, upgrading and retaining qualified staff. Supervisors may also choose to involve external auditors, internal auditors and consultants in implementing Basel II. If so, they have to maintain a close watch on the quality of the work being delivered by these parties in discharging supervisory work. Section 7 of the document focuses on these issues.

Section 1: Assessing national supervisory priorities

A. Introduction

In determining the applicability of Basel II in a given jurisdiction, supervisors will need to balance the costs and benefits of implementing the new Framework against other national or supervisory priorities. In particular, supervisors will need to assess the effectiveness of core infrastructures that promote the safety and soundness of the banking system, irrespective of the chosen regulatory capital framework. For some supervisors, this assessment may have implications for which Basel II approaches banks in their jurisdiction would be reasonably expected to adopt in the near-term. In other jurisdictions, supervisors may wish to defer implementation of Basel II and devote their near-term efforts towards furthering the development of these infrastructures.

B. Baseline capital adequacy, supervisory and disclosure regimes

A key objective of Basel II is to encourage improved risk management through the use of three mutually reinforcing Pillars. While banks have primary responsibility for appropriately measuring material risks and maintaining adequate capitalisation, the Basel II Framework recognises that Pillar 1 minimum capital requirements cannot be the sole answer to adequate capitalisation and risk management in banks or safety and soundness in a banking system. Strong risk-based supervisory review with early intervention and market discipline under Pillars 2 and 3, respectively, complement minimum capital requirements.

Consistent with the above, supervisors in some jurisdictions may wish to retain their current approach to minimum capital requirements and to focus their efforts on building a robust supervisory review framework and to enhance market discipline, consistent with the principles underlying Pillars 2 and 3. Assessment of countries' compliance with the Basel Committee's BCP provide good indications of areas of supervision that need reinforcement in order to meet baseline supervisory requirements, although additional guidance may be needed on disclosure and market discipline. These issues are discussed below.

Another relevant consideration for supervisors in assessing the suitability of Basel II in their jurisdiction is the cross-border implications of the implementation choice - for example, supervisors must evaluate whether the legal and regulatory framework foster an effective system of cross-border supervisory exchange of information, cooperation and co-ordination. This issue is further addressed in Sections 2.B and 6.

Supervisory framework

In addition to working towards BCP compliance, supervisors - including those who choose to retain the 1988 capital adequacy framework - are also encouraged to move towards a system of risk-based supervision. Specifically, supervisors, to the extent possible, should shift their emphasis towards the quality of a bank's risk management process and ability to assess risk exposures properly. However, for many countries, the hands-on evaluation of specific loans in the organisation's credit portfolio should continue to remain an essential part of effective supervision. Furthermore, the supervisory system should contain a mixture of off-site and on-site inspection, periodic reporting, and discussions with senior management and the board of directors. Such an evolution in the supervisory approach is a prerequisite to evaluations of banks' internal assessments under Basel II.

All banks should look at developing processes for assessing their capital needs and a strategy for maintaining capital levels, consistent with the principles embodied in Pillar 2. Supervisors are encouraged to review these. The capital level and processes should be tailored to the bank's risk profile, operations and controls (Principle 1). In turn, supervisors should engage in a dialogue with the bank regarding these processes (Principle 2). An important dimension of this dialogue is to motivate banks of varying levels of complexity to think further about how they assess and manage their capital levels. Supervisors should also ensure that banks hold capital in excess of the legal minima and have a process for early intervention to prevent capital from falling below the minima (Principles 3 and 4).

Disclosure regime

Disclosure of a bank’s financial information in a timely and reliable manner fosters market discipline by permitting market participants to assess a bank’s activities and the risks inherent in those activities, and to react accordingly. It strengthens the incentives for banks to behave in a prudent manner and thereby promotes financial stability. Market discipline based on adequate public disclosure is an effective complement to supervisory efforts to encourage banks to maintain sound risk management systems and practices.

Consistent with the above objectives, supervisors should require banks to make periodic disclosures of information that are timely, accurate and sufficiently comprehensive to provide a basis for effective market discipline. The reliability of disclosed information should be assured by sound internal control and risk management systems and complemented by effective external and internal audit.

In many countries, implementation of Basel II and the related Pillar 3 requirements will be a natural evolution from a disclosure framework that meets these objectives. In other countries, supervisors may wish to focus initially on achieving consistency in the application of a "baseline" level of disclosure across all banks. This may serve as a suitable starting point for promoting market discipline. Such baseline disclosures can be grouped under the following six broad categories[3]:

- financial performance;
- financial position (including different tiers of capital, solvency and liquidity);
- risk management strategies and practices;
- risk exposures (including credit risk, market risk, liquidity risk, operational, legal and other risks);
- accounting policies, and
- basic business, management and corporate governance information.

Looking ahead, supervisors are encouraged to engage in an active dialogue with banks, investors and other users of financial information. This dialogue will allow supervisors to assess these parties' information needs, the tools available to exercise market discipline and tailor the baseline disclosure requirements appropriately.

[3] The Basel Committee’s paper *Enhancing Bank Transparency* (September 1998) sets out detailed recommendations for "baseline" disclosures.

C. Legal-regulatory infrastructure and good governance

A number of legal and regulatory preconditions must be met to support effective supervision. These preconditions are broadly set out in the BCP numbers 1, 6, 8, 21 and 22, relating to operational autonomy, adequate resources, appropriate regulatory and remedial powers, and a suitable legal framework including protection for supervisors.

In addition, the adoption of internationally accepted accounting standards, asset valuation rules which are consistent, realistic and prudent, and loan loss provisions that reflect realistic repayment expectations are all necessary to ensure that capital ratios - computed under the 1988 or new Framework - will reflect meaningfully the capital adequacy of the bank.

Supervisors should also create incentives to help motivate sound conduct of business and governance practices within institutions. The Basel II proposals underscore the interaction between sound risk management and corporate governance. For example, the IRB approach to credit risk sets out requirements for sound risk assessment processes, robust controls and transparency. In turn, the board and senior management are expected to understand and guide a bank's overall risk management and performance.[4] Supervisors should ensure that all banks institute good governance practices, irrespective of the capital approach adopted.

D. Human resources

Having the right personnel will be critical to the successful implementation of Basel II. This may involve hiring more qualified staff and enhancing training programmes. In particular, for countries implementing the advanced approaches for Basel II, there is a need to retain both bank and supervisory personnel with the quantitative expertise and skills to understand banks' rating systems, models and capital assessment strategies in advance of Basel II implementation. Even for the simpler approaches, both bank and supervisory staff may need to upgrade their skills in the areas of credit risk mitigation and operational risk as well as capital adequacy assessment under Pillar 2.

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[4] In the paper *Enhancing Corporate Governance for Banking Organisations* (September 1999), the Committee sets out sound corporate governance practices for banks.

Section 2: Determining the scope of application of Basel II

A. Introduction

For those jurisdictions which elect to adopt Basel II, supervisors will need to determine the range of approaches within the Framework that banks could reasonably be expected to implement in an appropriate time frame and to determine the population of banks that will be subject to the new Framework. These two issues are discussed below.

Making these determinations will be an iterative process, based on quantitative and qualitative criteria for significant banks, and an assessment of the costs and benefits of the different Basel II approaches. This process will also be informed by the results of the dialogue between the supervisor and its banks, including the results of banks' evaluation of their readiness vis-à-vis the Basel II requirements; the analysis of supervisory readiness; the overall impact of the chosen approaches on capital levels; and competitive equity considerations.

Supervisors are encouraged to communicate their expectations concerning the scope and timing of Basel II implementation in a timely manner. In certain jurisdictions, after due consultation, these expectations will have to be translated more formally into legal requirements.

B. Options under Basel II

A country may have a broad mix of domestic and international banking institutions with varying degrees of size and sophistication in their risk management practices. As a result each jurisdiction may offer several methodologies for the calculation of capital requirement, each one being appropriate to a certain level of complexity or sophistication of risk management. Supervisors must be aware, however, that allowing a variety of approaches for determining capital adequacy could justifiably result in different capital requirements for the same type of transaction.

In determining the range of Basel II approaches to implement, each supervisor should adopt a strategy that suits its particular circumstances and meets its objectives. Consequently, a supervisor must, taking into account the potential differences in capital requirements arising out of multiple approaches, consider the following:

- The structure of the banking system, taking into consideration the mix of the banking institutions operating in that country. For example, for a supervisor that has only domestic, non-internationally active banks, the key factors to consider would be notably different from a jurisdiction with only foreign banking branches and subsidiaries.
- The sophistication of the banking industry is another important consideration. If there are many complex, internationally active banks operating in a market, a supervisor may elect to devote its efforts to more closely aligning capital to underlying risks at these institutions via the advanced approaches. Another consideration is the sophistication and capacity of the banking supervision infrastructure and the supervisor’s ability to supervise more sophisticated and advanced credit risk and operational risk approaches for capital adequacy.

- The major supervisory objectives and strategies with respect to capital adequacy must also be reviewed. These may include raising capital adequacy levels in the banking industry, encouraging better risk management methodologies, introducing operational risk capital, levelling the playing field for all participants and enhancing supervisory standards and market discipline. While these objectives may be complementary, a supervisor may assign different weights or priorities to them in the context of its national objectives.
- A supervisor must also consider the impact of the proposed capital adequacy scheme on the development of new banking products and services in its market. For example, the development of domestic bond markets, and the incentive for the market to develop in the areas of securitisation, derivatives and other off balance-sheet transactions may differ based on the degree to which regulatory capital requirements are aligned to economic capital assessments and underlying risks.
- Supervisors must also evaluate home/host relationships, including the degree of reliance the supervisor can place on the assessments of other supervisory authorities, particularly with respect to validation and ongoing monitoring of the advanced approaches.

After assessing these considerations, some banking supervisors may permit the use of only Basel I or the more basic Basel II approaches to credit and operational risk, while others will expect some or all of their banks to migrate directly from the 1988 Accord to the more advanced Basel II approaches. In making these determinations, supervisors should bear in mind that Basel II is designed to encourage ongoing improvements in risk management by providing incentives for banks to migrate to the more advanced approaches. While some banks in a particular jurisdiction may not be able to avail themselves of the advanced approaches immediately, supervisors should consider whether the range of options they are considering provide opportunities and incentives to migrate to these approaches over time.

C. Criteria for determining Basel II banks

Supervisors may want to consider the following factors when determining the population of banks to which Basel II would apply:

- size of the bank (e.g., share of assets in the banking system);
- nature and complexity of its operations;
- involvement in significant activities or business lines, such as settlement/clearing activities, or possession of a sizeable retail base);
- international presence (e.g., proportion of assets held in/income from overseas offices);
- interaction with international markets;
- bank's risk profile and risk management capabilities, and
- other supervisory considerations, such as resources which will be available for initial validation and ongoing monitoring, and the trade-off between the additional complexity of implementing and validating these approaches vis-à-vis the increased sensitivity of the resulting capital requirements.

Supervisors may wish to elaborate on these factors at the national level; for example, quantitative thresholds may be articulated for certain factors (e.g. asset size). However, it is important to note that using the above criteria will require qualitative assessments and supervisory judgement. As such, supervisors should have the discretion to apply Basel II to institutions if it is deemed necessary or appropriate for safe and sound banking practice. Alternatively, supervisors may decide it is appropriate to make all of the approaches in the Basel II framework available to all of the banks in their jurisdiction.

D. Factors to be considered in choosing a Basel II approach

The decision to implement a particular approach to capital regulation should not be driven by a bank's desire to minimise regulatory capital requirements. At the same time, banks and supervisors must evaluate what the differences between Basel I and Basel II will mean in practice, and assess the costs and benefits of making such a transition. Supervisors should give particular consideration to the increased risk management requirements incorporated into the Basel II framework, and the additional benefits these could bring beyond simple capital adequacy calculations. The main decision points for evaluating the transition to the simple and advanced approaches, respectively, are set out below.

The simpler approaches under Basel II

Use of external assessments

- In many countries, low rating penetration and a lack of domestic rating agencies may pose a challenge to implementation of the standardised approach, particularly in respect of corporate claims.[5] If external ratings are to be used, supervisors will need to evaluate the soundness and reliability of the institutions performing the assessments against the eligibility criteria set out in the new Framework. [6]
- Supervisors will need to determine if they have the capacity (in terms of human resources, budgets and time) to perform this function and whether there is sufficient depth to the market discipline in their jurisdictions to supplement this. The regulatory infrastructure should enable supervisors to address the potential problems that may arise in environments when companies can inappropriately obtain good ratings.
- Supervisors should also discuss with banks how they intend to monitor changes in external rating or country risk scores, and how these will be reflected in systems for capital computations.

Suitability of supervisory-determined risk weights and estimates

- Within the Committee, the supervisory estimates used in the Basel II calculations (e.g. the standardised risk weights for claims included in the retail portfolio – including claims secured by residential property - and supervisory estimates of key parameters in the foundation IRB approach) are minima. These estimates were based on experience in Committee member countries. As such, national supervisors

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5 At national discretion, such claims may continue to be weighted at 100%.

6 At national discretion, supervisory authorities may permit banks to risk weight all corporate claims at 100% without regard to external ratings. Supervisors must evaluate the suitability of this risk weight given the default experience in their country, and ensure that banks apply a consistent approach. Supervisors should also assess the suitability of the standard risk weight for unrated claims in light of national experience.

should evaluate the loss experience for these types of exposures to see if these estimates are appropriate and relevant for their jurisdiction.[7]

Credit risk mitigation

In assessing the costs and benefits of migrating to the simpler approaches of Basel II, supervisors should give consideration to the relevance of the additional credit risk mitigation permitted under Basel II for their banks. In turn, this will depend on which additional eligible instruments are used as collateral in a particular jurisdiction, whether the legal basis for the enforcement of collateral is effective, the existence of liquid markets to obtain reliable collateral valuations and the availability of a larger range of guarantors, including providers of credit derivatives.

Operational risk

A capital charge for operational risk is not an option but a fundamental part of Basel II. The simpler approaches - basic indicator, standardised or alternative standardised approaches - are relatively straightforward to implement (the last two require banks to be able to provide an appropriate breakdown of gross income into business lines).

When considering moving to Basel II, supervisors should be aware of the impact of the operational risk charge and understand that it is designed to provide incentives for banks to develop suitable approaches to operational risk measurement and ensure that banks are holding sufficient capital for this important risk.

Pillars 2 and 3

Supervisors are encouraged to implement the key principles underlying Pillar 2 and 3, even before they move to a Pillar 1 implementation. Thus the consideration of whether banks should adopt Basel II must not be solely based on Pillar 1 issues. Supervisors have to consider the additional efforts that may be required to achieve, and benefits to be gained from, compliance with the Pillar 2 and 3 requirements. This will depend on the nature of activities undertaken by banks and the extent to which risk-based supervision is presently carried out. In evaluating these factors, supervisors should consider banks' capabilities to carry out the internal capital adequacy assessment programme and their own readiness to perform the capital assessment review.

Banks moving on to Basel II must also make the applicable disclosures under Pillar 3. Supervisors have to ensure that they are in a position to require and enforce such disclosures before permitting banks to adopt Basel II.

Moving to advanced approaches

Of the options set out in Basel II, the IRB approach to credit risk and the AMA approaches to operational risk (together, the "advanced approaches") most closely link capital requirements

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7 For example, the 35% risk weight for residential mortgages only applies when strict prudential criteria are met. Supervisors could consider setting criteria for the minimum margin of additional security required and valuation (e.g. frequency of revaluation and possibly also method of valuation). Banks should demonstrate to supervisors how they intend to structure the internal process or systems to ensure that the preferential risk weight will only be applied when the required criteria have been met (e.g. legal enforceability, ability to foreclose, etc).

to underlying risks.[8] Given their increased emphasis on banks' internal assessments, the advanced approaches also require banks to meet a rigorous set of standards which provide a level of comfort as to the accuracy of these risk estimates and an appropriate control and oversight environment at banks. Adoption of these approaches also triggers additional obligations under Pillars 2 and 3. The process for determining which banks may be subject to the advanced approaches will require assessment of a number of factors, including a bank's risk profile, the nature of its operations, and its ability to meet the eligibility requirements for these approaches. For the IRB approaches, supervisors must also evaluate the suitability of the risk weight functions which are based on asset correlations observed in Committee member countries. The relationship between PD and capital needed to cover UL in the IRB curves reflects the experience in mature markets. Countries may need to require more capital if there has been a higher loss history.

For jurisdictions where supervisors decide to make the advanced approaches available to all banks, these factors are relevant when considering whether the banks who do apply for an advanced approach meet the minimum requirements.

E. Target implementation date

The state of readiness of both the banking system and supervisory authority will be a major factor in determining the implementation schedule. The Working Group is of the view that implementation of the simpler approaches would be best effected on a single date across all applicable banks – the date chosen should be announced well in advance.

The Working Group also encourages supervisors to make the advanced approaches available to qualifying banks as soon as possible, given national circumstances and constraints. This approach gives individual banks an incentive to improve risk management systems so as to avail themselves of these approaches over time. The Group recognised that adoption of the advanced approaches by a given bank (or banks) may be effected on a step by step basis, reflecting the developing state of readiness of the bank and its supervisor.

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8 For simplicity, the discussion in this document refers to these jointly as the "advanced approaches", however, a supervisor may require a bank to adopt these two advanced approaches jointly or singly - alternatively, some supervisors may choose to evaluate applicability of the advanced approaches on a case-by-case basis).

Section 3: Practical steps for Pillar 1 implementation

This section sets out suggested sequential steps to achieve readiness with the requirements under Pillar 1. Sections 4 and 5 discuss readiness for Pillars 2 and 3.

A. Areas of national discretion

Basel II proposals set out a number of areas where supervisors will need to determine the specific definitions, approaches, or thresholds they wish to adopt in implementing the proposals. The criteria used by supervisors in making these determinations should draw upon domestic market practice and experience, and be consistent with the objectives of the Basel II framework. The main areas of national discretion are summarised in Annex 1.

Apart from making determinations in the specific areas of national discretion, supervisors may need to devote resources into setting prudential standards and rules to operationalise various Basel II principles. For example, under the standardised approach, supervisors should evaluate whether the 35% risk weight for residential mortgages is adequate given the loss experience in their jurisdictions, as well as considering what are the "strict prudential criteria" that must be met to qualify for this 35% risk weight. Supervisors intending to implement IRB will also be required to develop specific standards and processes for IRB validation / certification.

B. Determining the quantitative impact of Basel II

The impact of the chosen Basel II approaches on capital requirements for individual banks and across the banking system should be established. From a methodological point of view, an initial assessment may be conducted along the lines of the third Quantitative Impact Study (QIS3).[9] This type of analysis should achieve the following objectives:

- provide banks with a fully operational version of the rules;
- evaluate the impact of the rules on capital ratios, concentrating on those components which contribute to significant changes;
- allow banks to assess how the changes resulting from the new rules fit into their overall risk profile, and
- enable banks to discuss issues as they arise through a continuous dialogue with their supervisors to ensure that the rules are interpreted accurately and consistently.

If the impact study shows that adoption of the chosen approaches will change the aggregate level of capital (at a given bank and/or within the system), supervisors need to ensure that

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[9] See Basel Committee publication *Quantitative Impact Study 3 - Overview of Global Results* (May 2003). From a conceptual point of view, supervisors are advised to follow the rules text as published by the Committee in June 2004 In June 2004: *International Convergence of Capital Measurement and Capital Standards, a Revised Framework*.

the change is considered appropriate for both banks and the banking system as a whole, and if so, that banks develop appropriate capital plans as part of the Pillar 2 process. Supervisors will need to work with the banks to determine realistic time frames for adjusting capital levels in anticipation of adopting the new Framework and in identifying acceptable capital sources.

C. Assessing bank practices and state of readiness

Introduction

The need for banks and supervisors to enhance their understanding of bank practices and implementation challenges is critical, particularly under the advanced approaches. As such, prior to making a final decision on which form of Basel II to apply, supervisors will need to:

- identify the current range of practice in risk management techniques and internal capital assessment at eligible banks;
- raise awareness of both banks and supervisors of what the new minimum capital standards and their implications for risk management will mean in practice;
- assess readiness of banks for Basel II, including identifying key gaps and implementation challenges, and
- inform the domestic rule-making process and preparation of examiner guidance.

Supervisors must develop a comprehensive process for achieving these objectives. This process should include both bilateral discussions with banks, as well as exploration of the broader issues.

Bilateral dialogue with banks

There are a number of approaches, including self-assessment, targeted visits and horizontal reviews that supervisors may use:

- Supervisors may wish to identify a subset of banks to engage in comprehensive reviews, focussing on each bank's internal practices, readiness for Basel II and key implementation challenges. Ideally, the banks selected would be potential candidates for the transition to Basel II.
- As a first step, the supervisor could request such banks to conduct informal self-assessments of their readiness based on minimum requirements as set out in the new Framework. These assessments should form part of an ongoing dialogue between banks and supervisory teams.
- These reviews should be conducted through targeted visits, separate from the normal on-site examination of the bank. Such an approach would distinguish the nature of these exploratory visits from formal examinations, and encourage fact-finding and exchanges of views between the bank and its supervisor.
- Supervisors may structure each review to focus on a specific area. For example, IRB reviews could focus on (a) rating system structure, (b) quantification methods, (c) data and IT, (d) controls and oversight mechanisms, and (e) validation. Depending on the structure of the bank, these lines of inquiry could be covered for each asset class (e.g. separate reviews for corporate versus retail portfolios) or across asset classes.

- Supervisors should identify the mix of supervisory resources needed for these reviews. As the focus is on evaluating current practice, specialised skills will be required, including credit specialists, experts in quantitative methods and Basel II policy experts, as well as institutional experts. Similarly, it will be important to engage staff from all the relevant areas of the bank in the assessment (including credit specialists, IT, quantitative experts and group risk management personnel).
- An important consideration in developing the review process is to provide the supervisory team wide-ranging access to multiple firms. This horizontal perspective will allow members of the team to assess the range of practice across banks and to use that perspective to evaluate each individual bank's ability to meet the minimum requirements.
- The supervisor should develop a process for providing banks with feedback in the course of, and at the conclusion of, these reviews. However, given that a major objective of these reviews is to identify implementation challenges, supervisors will need to be clear that, at this stage, there is not yet a ready answer for every implementation question.

Broader efforts

Supervisors should identify additional ways to evaluate the range of practice in the domestic banking system, and promote dialogue with the industry on implementation issues. This process can yield substantial benefits both by encouraging the spread of sound practice and generating valuable information for supervisors.

Supervisors may want to contemplate a range of communication approaches - speeches, conferences, bilateral meetings and media coverage. The communication strategy should be tailored to Basel II implementation plans, and seek to convey supervisory expectations in a timely manner.

D. Preparing banks for Basel II

Bank management are responsible for establishing and improving risk management systems but supervisors can and should promote improvements in various ways, thereby encouraging banks to avail themselves of the more sophisticated approaches under Basel II. These efforts should be guided by dialogue between banks and supervisors regarding the main challenges in implementing Basel II. Such efforts may include measures that form part of normal, risk-based supervisory programmes.

The sections below expand on two areas where supervisory efforts may be particularly useful in promoting improvements in bank practice, especially in respect of internal ratings systems for credit risk.

Data collection

Banks using the advanced approaches will need to be able to measure the main drivers of risk. The Basel standards provide banks with the flexibility to rely on data derived from various sources as long as the bank can demonstrate the relevance of the external data to its own exposures. Regardless of source, high quality data are critical for formulating effective internal risk assessments. From a broader risk management perspective, access to such data will enable a bank to evaluate the performance of its risk estimation systems in a consistent and meaningful manner.

Banks may need to implement substantial changes to their internal systems to prepare for appropriate data collection and revised reporting requirements. These changes may require systems integration, modification and new software. Banks will need to review the necessary system changes and develop a realistic implementation timetable to carry out such changes.[10]

Supervisors should continue to encourage banks to consider their data needs very seriously and to comprehend fully the techniques they will need to use to derive appropriate estimates of risk based on those data. In practical terms, banks will be expected to have in place - or be actively developing - a data "warehouse", that is, a process that enables a bank to collect, store and draw upon loss statistics in an efficient manner over time.

Data availability varies across portfolios, banks, jurisdictions and risk types. Supervisors may also wish to encourage private initiatives/processes for credit information sharing and for assessing comparability of pooled data with internal bank experience. Sharing of data is particularly useful when banks in a jurisdiction have a short data history. In these situations, supervisors and banks will have to deal with confidentiality considerations. Banks and supervisors may also draw upon collaborative supervisory efforts to facilitate data collection. The Committee's *Operational Risk Loss Quantification Survey*, for example, provides a useful framework for banks to begin data collection efforts in that area.

Promoting risk differentiation

Where appropriate, supervisors may wish to build on existing supervisory tools - such as loan classification systems - which might provide a starting point for progress towards internal rating systems. In this respect, a loan classification system would be particularly useful in this regard if it (a) encourages differentiation not only of substandard and problem loans, but also performing loans; (b) distinguishes between borrower and facility characteristics; and (c) differentiates between asset classes with different risk characteristics (e.g. corporate versus retail loans).

E. Drafting of supervisory and examiner guidance

Based on information gleaned from the efforts discussed above, supervisors are encouraged to prepare additional guidance for banks and examiners. The guidance to the banks may expand on how the principles-based standards governing qualification for the advanced approaches will be interpreted in the context of the national market and national experience. The guidance to supervisory staff can provide further information on how examiners can evaluate compliance with these standards. Such guidance will enhance the transparency of

[10] These changes may be significant for banks on the simpler approaches as well. For example, banks subject to the standardised approach to credit risk should demonstrate to supervisors how they intend to manage the information on past due loans and how their systems will capture provisions and collateral information to identify whether a lower risk weight may be applied. Similarly, banks should demonstrate to supervisors how their information systems would capture the relevant information to implement the proposals for recognition of credit risk mitigation. For example, discussion should cover the proposals for the comprehensive approach, including banks' ability to use their own-estimates of haircuts or a VaR modelling approach.

the supervisory process, and promote consistency in implementation of the Basel II approaches across institutions.

F. Approval process

Supervisors must communicate to banks the process for approving the transition to the respective approaches. As part of this process, banks should conduct in-depth self-assessments of their internal systems and develop comprehensive plans for enhancing those systems to meet the requirements of the chosen approaches. At a minimum, such plans should cover an evaluation of key gaps, actions needed to fill such gaps, the personnel responsible for specific actions, resource needs and a schedule for achieving compliance. These implementation plans will be particularly critical for the transition to the advanced approaches.

Supervisors should also communicate their expectations as to when banks should begin to provide parallel calculations of capital charges under the 1988 and new Framework. This process will also help give banks and supervisors confidence in the resulting capital charges and assist in identifying outstanding implementation issues. Supervisors should develop a mechanism for analysing the results of these parallel runs, providing feedback to banks and using this information to form their own implementation plans.

G. Information sharing between supervisors

Dialogue between supervisors is essential for the exchange of information on implementation challenges and potential solutions and for sharing practical insights on how to assess internal risk management processes. This dialogue will ensure assessments are done in a more consistent fashion across jurisdictions and result in greater comparability in the implementation of Basel II. The Committee has begun a process for an exchange of views between non-G10 supervisors represented in the Core Principles Liaison Group and Committee members. The Committee encourages additional dialogue through similar initiatives as well as on a bilateral basis between home and host supervisors for communicating expectations of each other’s roles in implementation.

Such bilateral information-sharing will be particularly important in the context of cross-border supervision of banking institutions. The Basel Committee has published high-level principles which explain in broad terms how home and host supervisors might communicate and share information.[11] In co-ordinating the supervision of foreign bank subsidiaries, it will be important to consider the perspectives of both the home and the host supervisor. In practice, the need for cooperation will depend largely on the implementation programmes of individual banks. Memoranda of Understanding between supervisors may be one way of achieving these goals.

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[11] Basel Committee on Banking Supervision, *High-level principles for the cross-border implementation of the New Accord* (August 2003).

Section 4: Practical implications for Pillar 2 implementation

A. Principle 1

Overview

The first principle of Pillar 2 requires banks to have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining capital levels. Banks should have a comprehensive framework to identify, measure and report all material risks and to assess and allocate capital against these risks in a systematic and objective manner. Risks that should be considered under Pillar 2 are those that are not fully captured or specifically addressed by the Pillar 1 process (e.g. credit concentration risk, interest rate in the banking book, liquidity, business, strategic and reputation). Factors external to the bank (e.g. business cycle effects) should also be captured in the Pillar 2 process.

It is likely that such a capital adequacy assessment process (CAAP) will pose a challenge to many banks, especially if they presently manage risk on an individual basis and do not have procedures for integrating these risks into an overall assessment of capital adequacy. As such, it will be particularly important for banks and supervisors to engage in a dialogue on these challenges in preparation for Basel II implementation. This interaction should help motivate banks of varying levels of complexity to refine their internal processes for looking at capital adequacy.

CAAP process

The Committee recognises that the nature of the specific methodology used for assessing capital adequacy will depend on the size, complexity, and business strategy of a bank. Large banks on the advanced approaches may be moving towards use of economic capital models. Smaller non-complex banks may opt for a more judgement-oriented approach to capital planning rather than sophisticated and complex internal risk assessment processes. They should demonstrate that their internal capital target is well founded and consistent with their risk profile. For example, non-complex banks may seek to[12]:

- Conduct peer analysis of capital levels;
- Develop an internal strategy for maintaining capital levels which can incorporate factors such as loan growth expectations, future sources and uses of funds, and dividend policy;
- Evaluate internal processes for risk identification;
- Review qualitative risk factors, such as the control environment;
- Evaluate approaches for providing for unexpected events, including developing a contingency plan for additional sources of capital, and
- Conduct stress tests which take into account the risks specific to the jurisdiction in which the bank is operating and the particular stage of the business cycle (e.g.

[12] These methodologies may also be useful for more complex institutions.

economic or industry downturns, the effect of a recession, market risk events, or liquidity shortfalls).[13]

A bank's CAAP should also encourage sound corporate governance, based on the standards agreed by the Committee since Basel I and on which Basel II relies:

- Board and senior management should have a good understanding of risk and techniques to measure risk and should review and approve the overall risk philosophy, risk tolerance and risk policy;
- There should be periodic reporting to Board and senior management on the bank's risk profile and capital needs and robust internal control reviews to assure the integrity of the process;
- The risk management and capital policy framework should be approved by the board and overseen by senior management, and
- Banks should consider the establishment of a formal structure within the bank, such as a "Capital Management Policy Committee", headed by a member of senior management with appropriate expertise, to provide overall direction and guidance on capital issues.

B. Principle 2

Under Principle 2, a supervisor should review and evaluate banks' internal capital adequacy assessments and capital 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. The review should consider the nature, size, and complexity of each bank. Specifically, the supervisor should:

- Ensure that the bank's analysis has incorporated all material risks. There should be a process to review the quality of the risk management and control systems, the board's awareness of the capital adequacy assessment programme and the extent to which capital adequacy assessments are used routinely within the bank for decision-making (i.e. the "use" test).
- The supervisor should determine whether the target levels and composition of capital chosen by a bank are comprehensive and relevant to the current operating environment; if capital levels are properly monitored and reviewed by senior management; and whether the actual level and composition of capital is appropriate for the nature and scale of the bank's activities. The supervisor should also consider the extent to which the bank has provided for unexpected events in setting capital levels.

In effecting this, supervisors will compare the actual capital held by the bank against the amount of capital required:

- under Pillar 1;

[13] Under Pillar 1, banks on IRB approach are also required to perform stress testing of their own design for credit risk.

- as per the bank’s own assessment (covering all risks), and
- according to the supervisor’s assessment of capital, taking into account the supervisory approach to principles 3 and 4 (discussed below).

The supervisors’ review of a bank's CAAP should be made periodically. For the largest banks, this review would typically occur on an annual basis. However, the extent and depth of the review may vary from year to year.

Supervisory responses

Supervisors must identify the approaches they will rely on in the event the supervisor is not satisfied with the results of the bank’s capital adequacy assessment programme. A hierarchy of approaches may be available to address identified weaknesses. These include requiring a bank to strengthen risk management or improve internal controls, implementing a capital restoration plan, restricting a bank's activities or dividends and requiring additional capital (see related discussion under Principle 4, below). All of these options should be legally available to the supervisor.

Communicating supervisory expectations

The supervisory procedures for capital assessment should be clear and transparent to banks, and integrated into an ongoing supervisory programme. Supervisors should also communicate any expectations for factors to consider in the CAAP process (e.g. whether banks are required to provide buffers to counter procyclicality effects or whether banks on the standardised approach need to perform certain standard stress tests for the adequacy of capital.) The supervisor should have the power to enforce such expectations.

C. Principle 3

Under Principle 3 of Pillar 2, supervisors should expect banks to operate above the minimum capital ratios and should have the ability to require banks to hold capital in excess of the minimum. Supervisors will consider risks specific to the bank’s operations, the jurisdiction in which it operates in, the overall quality of risk management practices at a given bank and whether risks not adequately covered under Pillar 1 are addressed appropriately.

Supervisors have a range of options for complying with this principle - there is no single "right" way. Supervisors should seek to communicate their approach and specific reasoning to banks. The options include, for example:

- Requiring all banks in a jurisdiction to adhere to a single ratio above 8%;
- Establishing industry-wide trigger ratios which provide for increasingly stringent corrective measures;
- Establishing bank-specific target ratios based on a bank’s risk profile and risk management capacity, and
- Assessing the process around the bank’s own target (which should be above the pillar one minimum) and agreeing that the process is acceptable.

D. Principle 4

Principle 4 states that 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.

Generally, supervisors should be able to rely on their mandate for maintaining ‘safety and soundness’ for meeting this principle. In some countries, supervisors are also provided with an explicit legal basis for early intervention (e.g. ‘prompt corrective action’ regimes). An explicit legal basis should protect the supervisor from the charge of undue interference in the decision process, but should also provide room for supervisory flexibility in particular circumstances.

Each supervisor should clarify the steps that it will need to follow in the event of a decline in a bank's capital level toward the minimum. For example, as a starting point, the supervisor should require the bank to provide a capital restoration plan and the timetable for doing so. Increased monitoring of the bank is most likely to be required. The supervisor should also seek to understand whether the decline in capital is symptomatic of an underlying problem (e.g. weak management) that requires corrective action. If capital is not maintained or restored, supervisors may require the bank to undertake remedial actions. These are examined in more detail in the Committee’s paper titled *Supervisory Guidance on Dealing with Weak Banks* (March 2002).

Section 5: Practical implications of Pillar 3 implementation

Under Pillar 3 of Basel II, the Committee aims to encourage market discipline by requiring banks to make disclosures that will allow market participants to assess capital adequacy. Banks are expected to comply with the relevant Pillar 3 requirements at the time the new Framework is implemented.

A. Availability of required information

Supervisors should engage in a dialogue with banks regarding additional disclosure requirements and how they are to be effected. In some cases, the requisite information is captured in the bank's risk management system and used as an input to capital adequacy computations. In others, the information will already be disclosed to meet other accounting or regulatory requirements.

For disclosures that are not mandatory or required under accounting or other external reporting obligations, banks may provide the information in a number of ways, such as via publicly accessible internet websites or in public regulatory reports filed with bank supervisors. To the extent that it is feasible, banks are encouraged to provide all related information in one location, or alternatively, indicate where the information can be found. Banks must also identify the changes in reporting and information systems required to produce the required information.

Banks need to decide on a formal disclosure policy approved by the board of directors, implement the internal controls over the disclosure process and have a process for assessing the appropriateness of their disclosures, including validation and frequency. The role of external auditors in validating information will also have to be considered at an early stage.

B. Ensuring compliance with Pillar 3 requirements

Each supervisor will need a Pillar 3 implementation plan specifically tailored to the legal and procedural environment in its own jurisdiction. The plan could address issues such as the size and scope of the banking system, the sophistication of banks, the stage of development of accounting standards and securities listing requirements, the strength and capability of the supervisory function and the range of Basel II options that banks will be expected to adopt. This plan should define the range of Pillar 3 requirements, based on the respective Basel II approaches, identify major gaps and issues to be resolved, document critical requirements and develop a phased road map and clearly communicate the requirements to banks and to the public.

Supervisors must evaluate the powers available to them to achieve the disclosure requirements under Pillar 3. Some supervisors will be able to require banks to make Pillar 3 disclosures under safety and soundness grounds; others may require legislation or regulation. Supervisors must also develop skills and expertise within their own organisations to utilise Pillar 3 disclosures. These will include the ability to analyse and review disclosure information and use it effectively as a supervisory tool. These efforts may necessitate additional investment in human resources and in technology.

Supervisors will need to develop a process for enforcing banks' compliance with the disclosure requirements. These may include:

- Review of the disclosures and factoring them into supervisory assessments of the bank's management;
- Relying on regulatory reports to collect the required information, thus facilitating monitoring of compliance with the requirements;
- Publishing surveys which highlight compliance across the banking industry on various disclosure initiatives, such as the BCBS survey[14], thus encouraging the market to monitor bank compliance;
- Signalling the importance of disclosure in speeches by senior officials;
- Using standard supervisory tools (including prompt corrective action) to ensure compliance with disclosure requirements, and
- Equipping market participants to understand disclosures and how to respond to their absence.

[14] Basel Committee on Banking Supervision *Public Disclosures by Banks: Results of the 2001 Disclosure Survey* (May 2003)

Section 6: Review and adjustment of the legal and regulatory framework

A. Introduction

In order to implement Basel II, legal and regulatory changes will most likely be needed and will depend upon the scope of Basel II implementation (options and institutional coverage), as well as differences in existing systems, legal and regulatory traditions and practices. As the required timeframe for effecting these changes can be considerable, supervisors are encouraged to embark on this process as soon as possible. Specifically, supervisors will need to assess (a) the scope of the needed changes; (b) the procedures which need to be followed (e.g. parliamentary or consultative processes); and (c) the timeframe involved in introducing the changes.

This section highlights a number of potential legal issues that may arise with respect to implementation of each of the three pillars. Looking ahead, bank practices will of course continue to evolve. The legislation must therefore build in flexibility for future refinements and adjustments to the regulatory framework.

B. Supervisory structure

The main questions to be answered include the scope and robustness of the supervisor's powers and whether the supervisor has the authority to require banks to adopt Basel II. This will in many cases be relatively simple; however, consultation and testing will often be required before new regulations are adopted. As the regulatory powers of the supervisory authority will usually be laid down in the banking law, any expansion or modification of this authority may require an act of parliament.

C. Pillar 1

The central questions include the following:

- Is the legal framework sufficiently robust to assure the effectiveness of credit risk mitigation techniques (e.g. what are the standards for loan security, security registration and foreclosure);
- Are the rules on provision of information to the supervisor sufficiently broad to permit obtaining detailed information on the functioning of internal data and risk management systems and are ad hoc inspections into these aspects readily feasible;
- Does the supervisor have the authority to impose a periodic audit of the banks' rating systems, and
- What legal protection do banks have against the main categories of operational risk (fraud, liability based on computer failure, and similar risks?).

D. Pillar 2

- Does the supervisor have sufficient legal and regulatory powers to enforce the four principles of Pillar 2;
- Does the supervisor have sufficient powers to impose higher capital charges upon individual banks;
- Does the supervisor have adequate intervention powers to enforce compliance;
- Is the supervisory authority held sufficiently accountable, and
- Does the legal and regulatory framework foster an effective system of cross-border supervisory exchange of information, cooperation and co-ordination?

E. Pillar 3

- Do the public law rules on supervisory confidentiality and private law rules on bank secrecy permit the type of public disclosure as envisaged under Pillar 3?
- Is the legal and regulatory system for verification of disclosed information sufficiently robust and comprehensive? For instance can the supervisor impose certain types of verification, outside the regular audit?

Section 7: Assessing resource and training needs

A key to the successful implementation of Basel II is adequately trained staff. Supervisors should develop a resource development strategy for supervisory staff geared to the approaches that will be adopted in their jurisdiction. Supervisors should also identify and address non-personnel resource needs (such as upgrading of reporting and IT systems at the supervisory authority or central bank).

A. Building and developing internal resources

Given the continuing innovation in the banking industry, many supervisors may need to increase the emphasis on specialised examination - both with respect to specialisation by institution type, as well as by risk and product area.

For staff responsible for validation and monitoring of the advanced approaches of Basel II, risk specialists and quantitative experts will need to understand a bank's internal ratings systems and models well enough to conduct initial validation and to monitor compliance. This will require a high level of expertise in areas such as statistics, modelling techniques and evaluation, simulation and stress testing.

Other supervisors may need to focus on developing an understanding of concepts, methodologies and risks associated with the Basel II approaches, the ability to use quantitative data in their analyses, and a basic understanding of capital assessment and measurement processes.

Training will need to be geared to the needs of these different audiences and will take several different forms - classroom training, self-study programs, conferences bringing together regulators and industry practitioners and partnering examiners in the field with economists and internal policy experts. Supervisors may also draw upon external or collaborative efforts in achieving their resource and training needs. These will include:

- Joint consultations between regulators, supervisors and the banking community to study and evaluate the likely impact of the introduction of the new Framework and the presence of adequate technical capacity among supervisors and supervised institutions;
- Training to upgrade the available level of skills, including through the support of multilateral institutions. In this regard, the Financial Stability Institute (FSI) is providing web-based courses as of mid 2004 and anticipates that more than half of its 50 seminars and programmes this year will concentrate on components of Basel II;
- Funding of technical assistance in the areas of financial sector regulation, supervision and development could be potentially provided by FIRST - a US$ 53 million multi-donor programme, and
- Supervisors need to identify creative methods for attracting, upgrading, and retaining qualified staff. These may include (a) establishing co-operative arrangements with supervisors in other jurisdictions which have banking institutions

operating in both jurisdictions; and (b) establishing a process for secondments of supervisory staff to and from the private sector.[15]

B. Assessing the potential for third party involvement

Supervisors may wish to involve third parties, such as external auditors, internal auditors and consultants, to assist in carrying out some of the duties under Basel II. Supervisors need to maintain a close watch on the quality of the work conducted by third parties in the discharge of supervisory responsibilities. The extent of reliance placed on the work of these parties will be at each country's own discretion. Factors influencing a decision in this regard include:

- the stage of development of each reviewing party/function;
- how to balance such reliance with the integrity, impartiality, objectivity and independence of the providers, and
- the ability of the supervisor to maintain authority and build skills if certain responsibilities are outsourced.

Some of the key elements to be considered when reliance is placed on the work of external auditors, internal auditors or consultants are set out below.

External auditors

The main issues for consideration include:

- There must be a suitably developed national accounting and auditing standards and framework, which are in line with best international practices. A minimum qualifying criterion for firms should be those that have a dedicated financial services or banking division that is properly resourced and have the proven ability to respond to the training and skill-upgrades required of its own staff to complete the task adequately. There could be links to an international firm or firms that could assist when required.
- To ensure maintenance of consistent practices and standards across the spectrum of firms undertaking such reviews, supervisors should meet with the auditors prior to the commencement of the assignment to discuss the scope of the review and share any mutually beneficial information.
- There should be consideration given for holding a trilateral close-out meeting (bank, external auditor and supervisor), at which results and findings are presented and appropriate action plans are decided.

Internal audit

With the implementation of the new Framework, internal audit may become increasingly involved in various processes, including validation of the accuracy of data inputs, review of the activities performed by the credit function and assessment of a bank's capital

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[15] The UK FSA is one institution which is adopting this kind of approach as part of its resourcing strategy.

assessment process. In evaluating the effectiveness of internal audit, supervisors may want to consider:

- The extent to which external audit places reliance on the work of internal audit.
- The quality of board and audit committee reports prepared by internal audit and how report findings are used by the board and senior management.
- The use of a risk-based, rather than traditional inspection-based, approach to internal audit.
- The independence of the function.

Consultants

Consultants may provide specialised expertise for certain elements of the Basel II initiatives. They may also be able to foster 'best practices' in different banks as well as jurisdictions. When considering relying on consultants, supervisors should evaluate the following issues:

- The balance between independence and additional skills in combination with the need for confidentiality in the carrying out of supervisory duties;
- The potential for conflicts of interest that may arise given the differing supervisory/consultancy objectives of system stability and profitability, respectively; and
- The size and strength of personnel, national and international reach, span of subject expertise, remuneration and track record of the firm.

Annex: Areas of National Discretion - Pillar 1

The following pages outline items where national discretion is permissible under the new Framework in Pillar 1.

Scope of Application

1. **National discretion** exists for the treatment of significant investments in insurance subsidiaries (see paragraphs 30 to 34).[16] Possibilities include deduction, Joint Forum-type aggregation, risk weighting (100% for standardised approach and use of the IRB framework for IRB banks).

Calculation of minimum capital requirements

2. Where the total expected loss amount is less than total eligible provisions, as explained in paragraphs 380 to 383, banks may recognise the difference in Tier 2 capital up to a maximum of 0.6% of credit risk-weighted assets. **At national discretion**, a limit lower than 0.6% may be applied (paragraph 43).

3. The Committee believes it is appropriate for supervisors to apply prudential floors to banks that adopt the IRB approach for credit risk and/or the AMA for operational risk following year-end 2008. For banks that do not complete the transition to these approaches in the years specified in paragraph 46, the Committee believes it is appropriate for supervisors to continue to apply prudential floors – similar to those of paragraph 46 – to provide time to ensure that individual bank implementations of the advanced approaches are sound. However, the Committee recognises that floors based on the 1988 Accord will become increasingly impractical to implement over time and therefore believes that **supervisors should have the flexibility** to develop appropriate bank-by-bank floors that are consistent with the principles outlined in this paragraph, subject to full disclosure of the nature of the floors adopted. Such floors may be based on the approach the bank was using before adoption of the IRB approach and/or AMA (paragraph 49).

Credit Risk - The standardised approach

The mapping process

4. **Supervisors will be responsible for assigning eligible ECAIs' assessments to the risk weights** available under the standardised risk weighting framework, i.e. deciding which assessment categories correspond to which risk weights. The mapping process should be objective and should result in a risk weight assignment consistent with that of the level of

[16] Paragraph references correspond to those in the paper entitled "International Convergence of Capital Measurement and Capital Standards", Basel Committee on Banking Supervision (June 2004) unless otherwise noted.

credit risk reflected in the tables above. It should cover the full spectrum of risk weights (paragraph 92).

Claims on sovereigns

5. At **national discretion**, a lower risk weight may be applied to banks' exposures to the sovereign (or central bank) of incorporation denominated in domestic currency and funded in that currency. Where this discretion is exercised, other national supervisory authorities may also permit their banks to apply the same risk weight to domestic currency exposures to this sovereign (or central bank) funded in that currency (paragraph 54).

6. **National authorities may** extend this treatment to portions of claims guaranteed by the sovereign (or central bank), where the guarantee is denominated in the domestic currency and the exposure is funded in that currency (paragraph 201).

7. When the government paper is denominated in the domestic currency and funded by the bank in the same currency, at **national discretion** a lower specific risk charge may be applied (paragraph 711).

8. **Supervisors may** recognise the country risk scores assigned to sovereigns by Export Credit Agencies ("ECAs"). Banks may choose to use the risk scores published by individual ECAs that are recognised by their supervisor, or the consensus risk scores of ECAs participating in the "Arrangement on Officially Supported Export Credits" (paragraph 55).

Claims on non-central government public sector entities (PSEs)

9. Claims on domestic PSEs will be risk-weighted at **national discretion**, according to either option 1 or option 2 for claims on banks. When option 2 is selected, it is to be applied without the use of the preferential treatment for short-term claims (paragraph 57).

10. Subject to **national discretion**, claims on domestic public sector entities (PSEs) may also be treated as claims on the sovereigns in whose jurisdictions the PSEs are established. Where this discretion is exercised, other national supervisors may allow their banks to risk weight claims on such PSEs in the same manner (paragraph 58).

Claims on banks

11. There are two options for claims on banks. **National supervisors will apply one option** to all banks in their jurisdiction (paragraph 60 to 64).

- Under **Option 1**, all banks incorporated in a given country will be assigned a risk weight one category less favourable than that assigned to claims on the sovereign of incorporation. However, for claims to banks in sovereigns rated BB+ to B- and to banks in unrated countries the risk weight will be capped at 100% (paragraph 61).
- **Option 2** bases a banks' risk weighting on the external credit assessment of the bank itself. Under this option, a preferential risk weight that is one category more favourable than the risk weight shown in the table below may be applied to claims with an original maturity of three months or less, subject to a floor of 20%. This treatment will be available to both rated and unrated bank claims, but not to banks risk weighted at 150% (paragraph 62).

12. When the national supervisor has chosen to apply the preferential treatment for claims on the sovereign as above, it **can** also assign to banks – under both options 1 and 2 – a risk weight that is one category less favourable than that assigned to claims on the sovereign of incorporation. This risk weight is subject to a floor of 20%, to bank claims of an original maturity of 3 months or less denominated and funded in the domestic currency (paragraph 64).

Claims on corporates

13. Supervisory authorities should increase the standard risk weight for unrated claims where **they judge** that a higher risk weight is warranted by the overall default experience in their jurisdiction. As part of the supervisory review process, supervisors may also consider whether the credit quality of corporate claims held by individual banks should warrant a standard risk weight higher than 100% (paragraph 67).

14. At **national discretion**, supervisory authorities may permit banks to risk weight all corporate claims at 100% without regard to external ratings. Where this discretion is exercised by the supervisor, it must ensure that banks apply a single consistent approach, i.e. either to use ratings wherever available or not at all. To prevent “cherry-picking” of external ratings, banks should obtain supervisory approval before utilising this option to risk weight all corporate claims at 100% (paragraph 68).

Claims included in the regulatory retail portfolios

15. Claims that qualify under the criteria listed in paragraph 70 **may** be considered as retail claims for regulatory capital purposes and included in a regulatory retail portfolio. Exposures included in such a portfolio **may** be risk-weighted at 75%, except as provided in paragraph 75 for past due loans. (paragraph 69).

16. National supervisory authorities should evaluate whether the risk weights in paragraph 69 are considered to be too low based on the default experience for these types of exposures in their jurisdictions. Supervisors, therefore, **may** require banks to increase these risk weights as appropriate (paragraph 71).

Claims secured by residential property

17. National supervisory authorities should evaluate whether the risk weights in paragraph 72 are considered to be too low based on the default experience for these types of exposures in their jurisdictions. Supervisors, therefore, **may** require banks to increase these risk weights as appropriate. (paragraph 73).

Claims secured by commercial real estate

18. In discussing the treatment of commercial real estate, the Committee notes that a 50% risk weight of certain exposures is warranted **only if strict conditions are met**. Any exposure beyond the specified limits will receive a 100% risk weight (footnote 25 to paragraph 74).

Past due loans

19. At national **supervisory discretion**, the risk weight for the unsecured portion of any loan (including a qualifying residential mortgage loan) that is past due for more than 90 days, net of specific provisions, can be reduced from 100% to 50% when specific provisions are no less than 50% of the outstanding amount of the loan (paragraphs 75 and 78)

20. Subject to **national discretion**, supervisors may permit banks to treat non-past due loans extended to counterparties subject to a 150% risk weight in the same way as past due loans (footnote 26 to paragraph 75).

21. For the purpose of defining the secured portion of the past due loan, there will be a transitional period of three years during which a wider range of collateral for higher risk categories (past due assets) may be recognised, subject to **national discretion** (footnote 27 to paragraph 76). This expands the range of eligible collateral as described in paragraphs 145 to 146.

22. In addition to the circumstances described in paragraph 75, where a past due loan is fully secured by those forms of collateral that are not recognised in paragraphs 145 and 146, a 100% risk weight **may** apply when provisions reach 15% of the outstanding amount of the loan. These forms of collateral are not recognised elsewhere in the standardised approach. **Supervisors should set** strict operational criteria to ensure the quality of collateral (paragraph 77).

Other categories

23. National **supervisors may** decide to apply a 150% or higher risk weight reflecting the higher risks associated with some other assets, such as venture capital and private equity investments (paragraph 80).

24. **National discretion** will be allowed for risk weighting gold bullion at 0% (footnote 28 to paragraph 81).

Implementation considerations

25. **Supervisors will have the option** to use a borrower's domestic currency rating for exposure in foreign exchange transactions when an exposure arises through a bank's participation in a loan that has been extended, or has been guaranteed against convertibility and transfer risk, by certain MDBs (footnote 31 to paragraph 102).

26. National **supervisory authorities may allow** banks to use unsolicited ratings in the same way as solicited ratings (paragraph 108).

Credit risk mitigation

27. For certain types of repo-style transactions (broadly speaking government bond repos as defined in paragraphs 170 and 171) **supervisors may** allow banks using standard supervisory haircuts or own-estimate haircuts not to apply these in calculating the exposure amount after risk mitigation. Where a supervisor applies a specific carve-out to repo-style transactions in securities issued by its domestic government, then other supervisors may

choose to allow banks incorporated in their jurisdiction to adopt the same approach to the same transactions (paragraph 136, 170, 172 and 294).

28. **Supervisors may** permit banks to calculate *H* using their own internal estimates of market price volatility and foreign exchange volatility. Permission to do so will be conditional on the satisfaction of minimum qualitative and quantitative standards stated in paragraphs 156 to 165. When debt securities are rated BBB-/A-3 or higher, **supervisors may** allow banks to calculate a volatility estimate for each category of security. In determining relevant categories, institutions must take into account (a) the type of issuer of the security, (b) its rating, (c) its maturity, and (d) its modified duration. Volatility estimates must be representative of the securities actually included in the category for that bank. For debt securities rated below BBB-/A-3 or for equities eligible as collateral (lightly shaded boxes in the above table), the haircuts must be calculated for each individual security (paragraph 154).

29. Paragraph 171 notes that *core market participants* may include, at the **discretion of the national supervisor**, the following entities:

- sovereigns, central banks and PSEs;
- banks and securities firms;
- other financial companies (including insurance companies) eligible for a 20% risk weight;
- regulated mutual funds that are subject to capital or leverage requirements;
- regulated pension funds; and
- recognised clearing organisations.

Credit risk - The internal ratings based approach

Adoption of IRB approach across asset classes

30. **Supervisors may** allow banks to adopt a phased rollout of the IRB approach across the banking group (paragraph 257).

31. Subject to **supervisory approval**, banks may be exempt from being required to adopt IRB for some exposures in non-significant business units as well as asset classes (or sub-classes in the case of retail) that are immaterial in terms of size and perceived risk profile (paragraph 259).

Transition arrangements

32. The transition period starts on the date of implementation of this Framework and will last for 3 years from that date. During the transition period, the minimum requirements established in paragraph 264 can be relaxed, subject to **discretion of the national supervisor** (see also paragraph 265).

33. For a maximum of ten years, **supervisors may** exempt from the IRB treatment particular equity investments held at the time of the publication of the new Accord (paragraphs 267 to 269).

Corporate, sovereign and bank exposures

Firm-size adjustment for small and medium-sized entities

34. Under the IRB approach for corporate credits, banks will be permitted to separately distinguish exposures to SME borrowers (defined as corporate exposures where the reported sales for the consolidated group of which the firm is a part is less than €50 million) from those to large firms. Subject to **national discretion**, supervisors may allow banks, as a failsafe, to substitute total assets of the consolidated group for total sales in calculating the SME threshold and the firm-size adjustment. However, total assets should be used only when total sales are not a meaningful indicator of firm size (paragraph 273 and 274).

Specialised lending (PF, OF, CF, IPRE)

35. At **national discretion**, supervisors may allow banks to assign preferential risk weights of 50% to "strong" exposures, and 75% to "good" exposures, provided they have remaining maturity of less than 2.5 years or the supervisor determines that banks' underwriting and other risk characteristics are substantially stronger than specified in the slotting criteria for the supervisory risk category (paragraph 277).

High-volatility commercial real estate

36. At **national discretion**, banks that meet the requirements for the estimation of PD under the foundation approach, or meet the requirements for the estimation of PD, LGD and EAD under the advanced approach, will be able to use the foundation or advanced approaches that are similar in all respects to the corporate approach, with the exception of a separate risk weight function as described in paragraph 283 (paragraphs 250 and 251).

37. At **national discretion**, supervisors may allow banks to assign preferential risk weights of 70% to "strong" exposures, and 95% to "good" exposures, provided they have remaining maturity of less than 2.5 years or the supervisor determines that banks' underwriting and other risk characteristics are substantially stronger than specified in the slotting criteria for the supervisory risk category (paragraph 282).

LGD under the foundation approach

38. All subordinated claims on corporates, sovereigns and banks will be assigned a 75% LGD. A subordinated loan is a facility that is expressly subordinated to another facility. At **national discretion**, supervisors may choose to employ a wider definition of subordination. This might include economic subordination, such as cases where the facility is unsecured and the bulk of the borrower's assets are used to secure other exposures (paragraph 288).

Effective maturity

39. **National supervisors may choose** to require all banks in their jurisdiction (those using the foundation and advanced approaches) to measure effective maturity for each facility using the definition provided in paragraph 320 (paragraphs 318).

40. Banks using any element of the advanced IRB approach are required to measure effective maturity for each facility as defined below. However, **national supervisors may** exempt facilities to certain smaller domestic corporate borrowers from the explicit maturity adjustment if the reported sales (i.e. turnover) as well as total assets for the consolidated group of which the firm is a part of are less than €500 million. The consolidated group has to be a domestic company based in the country where the exemption is applied. If adopted,

national supervisors must apply such an exemption to all IRB banks using the advanced approach in that country, rather than on a bank-by-bank basis. If the exemption is applied, all exposures to qualifying smaller domestic firms will be assumed to have an average maturity of 2.5 years, as under the foundation IRB approach (paragraph 319).

41. Within the explicit adjustment, **supervisors need to determine** which instruments will apply for the carve-out from the one-year maturity floor (paragraph 321 and 322).

Treatment of EL and provisions

42. Where the calculated EL amount is lower than the provisions of the bank, its **supervisors must consider** whether the EL fully reflects the conditions in the market in which it operates before allowing the difference to be included in Tier 2 capital. If specific provisions exceed the EL amount on defaulted assets this assessment also needs to be made before using the difference to offset the EL amount on non-defaulted assets (paragraph 385).

Retail exposures

43. **Supervisors may** wish to establish exposure thresholds to distinguish between retail and corporate exposures (paragraph 231 first bullet).

44. In addition, for residential mortgages, **supervisors may** set limits on the maximum number of housing units per exposure (paragraph 231 second bullet).

45. National **supervisors may** set a minimum number of exposures within a pool for exposures in that pool to be treated as retail (paragraph 232).

Equity exposures

46. **Supervisors will decide which approach** or approaches (market-based or PD/LGD approach) will be used, and under what circumstances (paragraphs 341 to 342).

47. In addition, **supervisors may** allow banks to employ different market-based approaches (the simple risk weight method or the internal models method) to different portfolios (paragraphs 343 to 349).

48. **Supervisors may** exclude equity holdings in entities whose debt obligations qualify for a zero risk weight under the standardised approach (paragraph 356).

49. **Supervisors may** exclude equity holdings made under legislated programmes. This exclusion is limited to an aggregate of 10% of Tier 1 plus Tier 2 capital (paragraph 357).

50. **Supervisors may** exclude the equity exposures based on materiality. Equity exposures, including holdings subject to exclusions and transitional provisions, are material if their aggregate value exceeds, on average over the prior year, 10% of bank's Tier 1 plus Tier 2 capital. This materiality threshold is lowered to 5% of a bank's Tier 1 plus Tier 2 capital if the equity portfolio consists of less than 10 individual holdings. National **supervisors may** use lower materiality thresholds (paragraph 358).

Purchased receivables - corporate exposures

51. **National supervisors must establish concentration limits** above which capital charges must be calculated using the minimum requirements for the "bottom-up" approach for corporate exposures (paragraph 242, fourth bullet).

52. At **national supervisory discretion**, banks may recognise guarantors that are internally rated and associated with a PD equivalent to less than A- under the foundation approach for purposes of determining capital requirements for dilution risk (footnote 78 to paragraph 373).

Minimum requirements for IRB approach

Rating system design

53. A bank must have a minimum of seven borrower grades for non-defaulted borrowers and one for those that have defaulted. Banks with lending activities focused on a particular market segment may satisfy this requirement with the minimum number of grades; **supervisors may** require banks, which lend to borrowers of diverse credit quality, to have a greater number of borrower grades (paragraph 404).

Corporate governance and oversight

54. Internal audit or an equally independent function must review at least annually the bank's rating system and its operations, including the operations of the credit function and the estimation of PDs, LGDs and EADs. Areas of review include adherence to all applicable minimum requirements. Internal audit must document its findings. Some national **supervisors may** also require an external audit of the bank's rating assignment process and estimation of loss characteristics (paragraph 443).

Definition of default

55. A default is considered to have occurred when the bank considers that the obligor is unlikely to pay its credit obligations to the banking group in full, without recourse by the bank to actions such as realising security (if held), or the obligor is past due more than 90 days on any material credit obligation to the banking group. In the case of retail and PSE obligations, for the 90 days figure, a **supervisor may** substitute a figure up to 180 days for different products, as it considers appropriate to local conditions. If local conditions make it appropriate to use a figure of up to 180 days also for lending by banks to corporates, this will apply only for a transitional period of five years (footnote 82 to paragraph 452).

Re-ageing

56. Some **supervisors may** choose to establish more specific requirements on re-ageing for banks in their jurisdiction than those established in paragraph 458.

Requirements specific to PD estimation

57. Within some jurisdictions, seasoning adjustments might be made mandatory, subject to **supervisory discretion** (paragraph 467).

Supervisory LGD and EAD estimates

58. **Supervisors may** allow for recognition of the credit risk mitigating effect of certain other physical collateral under the foundation approach. Each supervisor will determine which, if any, collateral types in its jurisdiction meet the two standards set out in paragraph 521.

Credit risk - Securitisation framework

Standardised approach - credit conversion factor

59. Subject to **national discretion**, if contractually provided for, servicers may advance cash to ensure an uninterrupted flow of payments to investors so long as the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying pool of exposures. At **national discretion**, such servicer cash advances that are unconditionally cancellable without prior notice may be eligible for a 0% CCF (paragraphs 582 and 641).

Operational risk

Measurement methodologies

60. At national **supervisory discretion**, a supervisor can choose to allow a bank to use the alternative standardised approach (ASA) provided the bank is able to satisfy its supervisor that this alternative approach provides an improved basis by, for example, avoiding double counting of risks (footnote 97 to paragraph 652).

61. As some internationally active banks will wish to use the Standardised Approach, it is important that such banks have adequate operational risk management systems. Consequently, an internationally active bank using the Standardised Approach must meet the criteria in paragraph 663. For other banks, these criteria are recommended, with **national discretion** to impose them as requirements (footnote 101 of paragraph 663).